

RESEARCH-BASED TEACHER
EDUCATION IN FINLAND
– REFLECTIONS BY FINNISH
TEACHER EDUCATORS

SUOMEN KASVATUSTIETEELLINEN SEURA
SAMFUNDET FÖR PEDAGOGISK FORSKNING I FINLAND
FINNISH EDUCATIONAL RESEARCH ASSOCIATION

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– REFLECTIONS BY FINNISH
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RITVA JAKKU-SIHVONEN AND HANNELE NIEMI (EDS.)

FINNISH EDUCATIONAL RESEARCH ASSOCIATION

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TABLE OF CONTENTS

PREFACE 5

INTRODUCTION TO THE FINNISH EDUCATION SYSTEM AND TEACHERS' WORK 7

RITVA JAKKU-SIHVONEN AND HANNELE NIEMI

TEACHER EDUCATION AT FINNISH UNIVERSITIES

THE BOLOGNA PROCESS AND ITS IMPLEMENTATION IN TEACHER EDUCATION ... 17

RITVA JAKKU-SIHVONEN AND HANNELE NIEMI

RESEARCH-BASED TEACHER EDUCATION 31

HANNELE NIEMI AND RITVA JAKKU-SIHVONEN

THE FUNCTION OF PRACTICAL STUDIES IN TEACHER EDUCATION 51

RIITTA JYRHÄMÄ

ENHANCING PROFESSIONAL DEVELOPMENT OF TEACHERS BY DEVELOPING
SUPERVISION INTO A CONCEPTUALLY-BASED PRACTISE 71

SINIKKA OJANEN AND ANNELI LAURIALA

MAKING MENTORING A TOOL FOR SUPPORTING TEACHERS'
PROFESSIONAL DEVELOPMENT 89

HANNU JOKINEN AND JOUNI VÄLIJÄRVI

TEACHER RESEARCHER NET – A FORUM OF INTERACTIVE PROFESSIONALISM AND EMPOWERMENT	103
--	-----

MARJA–LEENA HUSSO, EIRA KORPINEN AND TUULA ASUNTA

PROMOTING THE PEDAGOGICAL USE OF ICT IN FINNISH UNIVERSITIES AND TEACHER EDUCATION PROGRAMMES	123
--	-----

*EIJA RISTIMÄKI, HANNELE NIEMI, VARPU TISSARI, ARMI MIKKOLA
AND RITVA JAKKU–SIHVONEN*

SPECIAL ISSUES IN FINNISH TEACHER EDUCATION

FINNISH TEACHER EDUCATION: PREPARING TEACHER STUDENTS FOR EARLY LITERACY EDUCATION	153
---	-----

RIITTA–LIISA KORKEAMÄKI

EDUCATING TO TEACH GIFTED	163
---------------------------------	-----

HELEENA LEHTONEN

LEARNING DIFFICULTIES AS CONTENT IN THE TEACHER EDUCATION	173
---	-----

MARJA VAURAS

LEARNING–TO–LEARN ASSESSMENT IN FINLAND – VERSATILE TOOLS TO MONITOR AND IMPROVE EFFECTIVENESS AND EQUITY OF THE EDUCATIONAL SYSTEM	189
--	-----

*JARKKO HAUTAMÄKI, SIRKKU KUPIAINEN, PEKKA ARINEN, AIRI HAUTA–
MÄKI, MARKKU NIEMIVIRTA, PEKKA RANTANEN AND PATRIK SCHEININ*

GENDER PERSPECTIVE: A CHALLENGE FOR SCHOOLS AND TEACHER EDUCATION ..	203
--	-----

ELINA LAHELMA

ACTIVE CITIZENSHIP – A CHALLENGE FOR TEACHER EDUCATION	215
--	-----

SIRKKA AHONEN

AUTHORS	229
---------------	-----

Preface

Teacher Education in Finland has developed as a part of the Bologna process during 2003-2006. In March 2003, several universities responsible for teacher education decided to organise a project called the “National-Level Coordination of Degree Programme Development in Teacher Education and in the Sciences of Education” to manage multilevel co-operation between teacher educators and other representatives of the educational sciences. The project has used the website (www.helsinki.fi/vokke) to keep teacher educators and those of other academic fields informed of related developments. Collaboration between the universities and representatives of different academic fields has been fruitful.

Many seminars and workshops have been organised in order to share ideas and experiences in teacher education. This book is very much based on the topics that arose in those discussions and focuses on those topics worthy of reflection and development. We trust that this book will inspire the reader to contact, reflect upon and co-operate with Finnish teacher educators.

We gratefully thank all of the contributing authors for their co-operation, and are very pleased that the Finnish Educational Research Association has decided to publish this book. We also thank the Ministry of Education for financing and supporting the co-operation between the universities and for publishing this book. We are very grateful to the Faculty of Behavioural Sciences at the University of Helsinki, and especially to Dean Jarkko Hautamäki for fostering an excellent working environment for the project. We also thank Satu Uusiautti, MA, for her practical help during the publishing process.

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INTRODUCTION TO THE FINNISH EDUCATION SYSTEM AND TEACHERS' WORK

Finland is a Northern democracy with 5 million people. During the whole of her independence Finland has built up an education system, which is free of charge. As a whole, Finnish society has a very positive attitude to education. Learning and education are considered as an important resource to a small country during the whole national history. The main aim of educational policy has been and is to create equal educational opportunities for all citizens. Education is a basic right and one that serves the public. In general, policymakers, administrators and teachers are very committed to promote equality in education.

Today 73% of the 25-64 year olds have at least gained a certificate from upper secondary level and 33% (the highest in the EU) have had a university or corresponding education. The completion of basic education is a prerequisite for further studies. Only one percent of the age group does not receive a comprehensive school-leaving certificate in normal course of time. Still, more than half of these drop-outs will later receive it.

Special Features in School Administration

Basic education, upper-secondary education and vocational education are financed by the state and municipalities. Municipalities (local authorities) are the providers of education. Providers of education and schools set up their own curricula on the basis of the national core curriculum. In curricula local needs can be taken into consideration. Schools can have their own profiles such as science or music education.

At the beginning of the 1990s some functions of the state administration were diminished. The system of school inspection as well as the inspection of textbooks was discontinued. Instead of the inspection the realisation of national goals is evaluated by national and international sample-based assessments. Developing education is based on assessments and research in cooperation with teacher educators, researchers and teachers' and headmasters' associations.

There are no final examinations at the end of comprehensive school, but the Finnish National Board of Education has regularly –every second year– evaluated learning results in mathematics and in mother tongue Finnish and Swedish. Other topics –such as foreign languages, history and religion– are assessed according to a special programme. Assessments are sample based and the results are reported without any ranking lists. The schools which have not been included in the evaluation have had the option to gain the same benefit by having their learning results assessed by the Finnish National Board of Education as a chargeable service. With these external evaluations the schools and the teachers have been able to receive regular updates about the skills of their pupils in relation to other schools and to the nationally-set objectives. With the help of this information the schools performing below the average have had the opportunity to start improvement programmes.

Preschool Education

In Finland, the average age group is about 60 000. Provision of preschool education is an obligation on the local authorities and a right for families since August 2001. Preschool education, mainly provided by social authorities in day care centres, is offered for 6-year-olds and it comprises a minimum of 700 hours per year. At the moment, about 96% of the age group participate in preschool education.

Basic Education

Children generally start nine years of compulsory schooling at the age of seven. The aim is to integrate special-needs education as far as possible into ordinary schools. Still, there are special schools for certain groups with special needs. Besides teaching and educational equipment also school meal is free of charge. Transportation is arranged by the education provider for distances of 5 km and over. For Swedish-speaking students (6% of the population) there are separate comprehensive schools.

Upper-secondary School

After compulsory schooling, half of the age group choose the upper-secondary school. Another half continues education in vocational schools. Both routes provide access to higher education. Like comprehensive schools, some of the upper-secondary schools specialise in a particular subject. The curriculum of general secondary schools has been designed to extend over three years, but it can be accomplished in a longer or shorter time.

Education in upper-secondary school is course based. For Swedish-speaking students there are separate upper-secondary schools. Before matriculation, a minimum of 75 courses have to be passed. One third of all courses are optional. The national matriculation examination comprises exams in the mother tongue (Finnish/Swedish/Sámi), the second national language (Finnish/Swedish), the first foreign language, mathematics, humanistic studies and science studies. Four of the exams have to be passed for the matriculation certificate, which provides eligibility for universities and vocational higher education.

Recruiting Teachers

Teachers are recruited by schools and local authorities and they work as public servants of the municipality. Teachers' professional skills must be developed and updated by continuous in-service training. Today, there are some financial problems to provide in-service training, although both providers of education and teachers themselves are very much aware of the importance of lifelong learning.

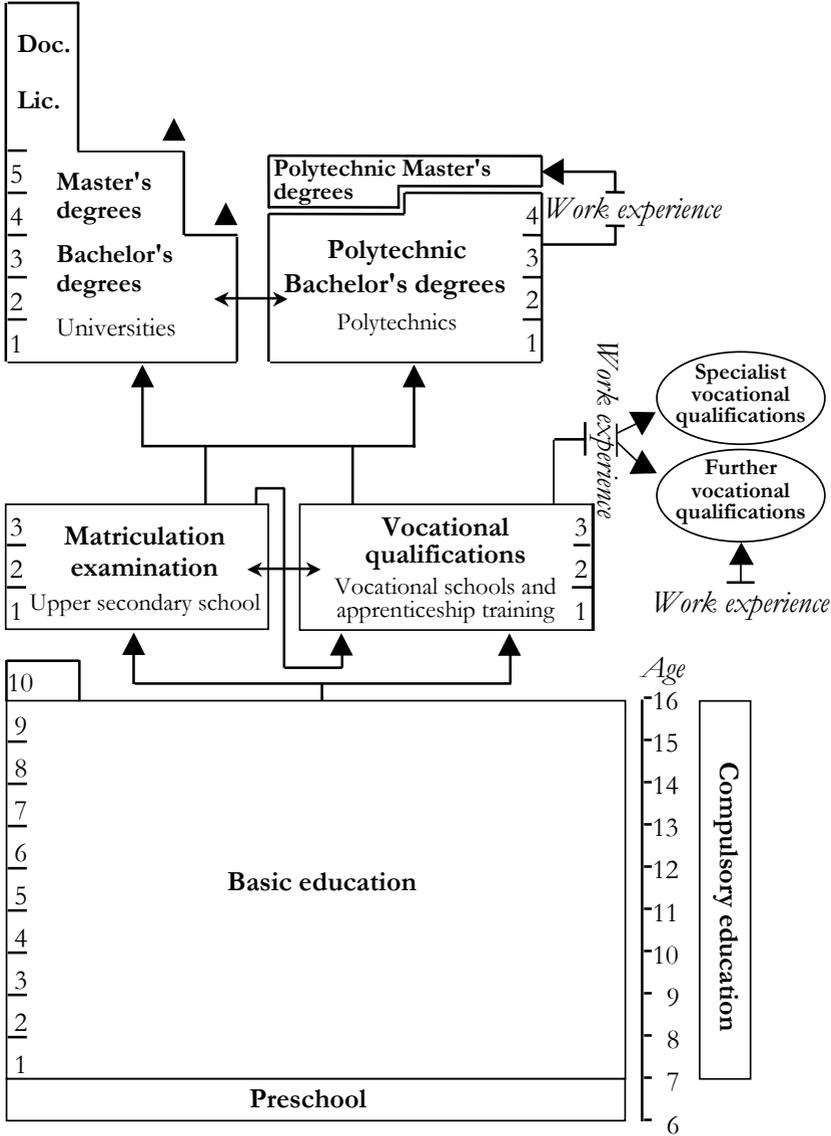


FIGURE 1. Finnish Education System. (National Board of Education www.oph.fi)

Promotion of Excellence in Teacher Education

In Finland, responsibility for providing education to prospective teachers at primary and secondary schools was transferred to the universities in 1971. Subject teacher education at the secondary school level was also reformed by expanding the scope of pedagogical studies. The purpose of this modification was to unify core aspects of elementary and secondary school education and to develop an academically high standard of education for prospective teachers. In the late 1970s, university education for both comprehensive and secondary teachers was planned in the form of programmes requiring four to five years to complete. The basic qualification for primary and secondary school teachers was defined as a Master's degree. Teacher education for comprehensive school teachers and upper-secondary school teachers as well as for those teachers, who teach general subjects in adult education and vocational education, is provided at eleven Finnish universities around the country.

Kindergarten teachers get a Bachelor's degree (180 ECTS) with education as a Major. This degree qualifies to serve as a kindergarten teacher and as a pre-school teacher.

Class teachers get a Master's degree (300 ECTS) with education as a Major. This degree qualifies to serve as a pre-school teacher and as a class teacher at the comprehensive schools from grade 1 to 6.

Age	School form	Teachers' qualification
0-6	Kindergarten	Kindergarten teachers (BA)
6	Optional pre-school	Kindergarten teachers (BA) or class teachers (MA)
7-15	Comprehensive school, 9 years	Class teachers and subject teachers (MA)
16-	Upper secondary school, 3 years	Subject teachers (MA)
16-	Vocational schools	Vocational school teachers and subject teachers
19-	Higher education	Teachers with higher academic degree

FIGURE 2. Teachers' qualifications by school forms (Partly based on www.sool.fi)

Subject teachers get a Master's degree (300 ECTS); Major is usually the subject one will teach in the future. A qualified subject teacher has to attain Master's degree and the teachers' pedagogical studies. The teachers' pedagogical studies (60 ECTS) can be included in the degree or these studies can be performed after the Master's degree.

Special-education teachers get a Master's degree (300 ECTS) in education or in special education. This degree qualifies to serve as a special-education teacher at the comprehensive schools, and as a class teacher.

Vocational school teachers perform a degree at a university or at a higher education institute and usually work for some years in labour market. After that, they perform the teachers' pedagogical studies at a vocational teacher education college.

Class teacher education is provided at ten departments for Finnish-speaking students and at one university for Swedish-speaking students. The Major in class teacher's degree is education. The profiles of the curricula of the class teacher education may vary at different universities. Subject teachers must perform teachers' pedagogical studies (60 ECTS). The curricula of the teachers' pedagogical studies consist of obligatory and optional elements. The main function of the optional elements is to orientate student to teach the subjects she or he will teach in the future. Teacher education has been reformed as a part of the Bologna process during 2003-2006. The process is explained in this book.

Learning Results in International Comparisons

According to the PISA 2000 study Finns were the best readers in the world. Finland reaches this top performance on the strength of excellent reading skills among girls. The boys also proved to be the best readers in OECD countries, although in Finland the discrepancy between girls and boys is the largest among the countries participating in the study. Furthermore, as a result of remedial teaching in Finland the number of pupils performing poorly was lower than in the other OECD countries.

Also the PISA 2003 study proved that Finnish 15-year-olds have the best learning results in Mathematics. Both boys and girls performed well. The weakest

quarter of students received results that were not up to the standards, but still better than in other PISA countries. One of the basic findings was that there are only small differences between comprehensive schools.

The PISA 2003 study also proved that Finnish students were among the best in all domains assessed in the PISA 2003 survey, that is, mathematics, reading literacy, sciences and problem solving. This outstanding achievement is based, in particular, on the good performance even by the weakest and average students. The average score achieved by the weakest quarter of Finnish students was by far better than that of the corresponding quarter in any other country.

According to the PISA researchers, Finnish basic teaching can be characterised as efficient. The time the students spend studying was one of the lowest in the countries surveyed. At the same time, resources allocated to education are only OECD average, so work by students and teachers have been very efficient.

Finnish principals see their teachers' commitment and high work ethic as the key strengths of their schools. They judge the teachers' influence on the school's atmosphere to be more positive than other principals in the OECD countries do on average. In particular, principals see their teachers as a positive resource in creating a good school environment. According to PISA researchers, this is made possible because Finnish teachers are quite independent and have broad decision-making power compared to their colleagues in other countries.

In this book teacher educators explain the main ideas of the new structure of teacher education since 2005 and the national networking process for renewing the curricula of education and teachers' pedagogical studies. Furthermore, professors from different Finnish universities reflect on their innovative ideas of educating student teachers and the challenges for developing further research-based teacher education. The articles focus on the topics, which come up in future-oriented discussions during the reform process.

This article is based on the information available in more details at the websites of the Ministry of Education (<http://www.minedu.fi>), Finnish National Board of Education (<http://www.oph.fi>), Teacher Student Union of Finland SOOL (<http://www.sool.fi>) and National-Level Coordination Project of Degree Programme Development in Teacher Training and the Sciences of Education (Vokke) (<http://www.helsinki.fi/vokke>).

TEACHER EDUCATION
AT FINNISH UNIVERSITIES

THE BOLOGNA PROCESS AND ITS IMPLEMENTATION IN TEACHER EDUCATION

Abstract

During the Bologna process many kind of activities have been organized at the Finnish universities in order to support the reforming process of the academic degrees. All teacher education is reformed to follow the two-tier system. Furthermore, the curricula for teacher education have been renewed at all teacher education departments. To support this reforming process, the Ministry of Education has financed a national networking project called Vokee project. By this project, many seminars and workshops have been organised with the hope of giving teacher educators opportunities to discuss and reflect the aims and contents of the teacher education. Cooperation between teacher educators, students, stakeholders and administration has been active and transparent.

Introduction

The Bologna process started in 1998 when the education ministers of Germany, France, Italy and the United Kingdom signed the Sorbonne Declaration concerning the harmonisation of European higher education degree systems. The ultimate aim of the process is to create a common European Higher Education Area by 2010 with a view to improving the competitiveness and

attraction of European higher education in relation to other continents. The means to this end are as follows:

- **Easily readable and comparable degrees.** The foremost tools for achieving this are ECTS (European Credit Transfer System) and the Diploma Supplement.
- **Uniform degree structures.** The degree structure will be mainly based on a two-cycle model. The first cycle, lasting a minimum of three years, ends in a Bachelor-level degree, which should also be relevant to the European labour market as an appropriate level of qualification. The second cycle consists of Master's and Doctoral degrees, both of which are postgraduate degrees.
- **Establishment of a system of credits - such as in the ECTS system.** Many countries do not have a system of study credits and determine their degrees only in years or semesters.
- **Increased mobility.** Obstacles to the effective exercise of free movement will be removed in order to effect essential increases in the mobility of students, teachers, researchers and administrative staff.
- **Promotion of European co-operation in quality assurance with a view to developing comparable criteria and methodologies.** The European Network of Quality Assurance in Higher Education plays a key role in this.
- **Promotion of the European dimension in higher education.** Closer international cooperation and networks; language and cultural education. (www.minedu.fi)

In order to strengthen the position of Finnish universities in the European Higher Education Area, Finland has reformed the degree structure and devised an international strategy for the Finnish higher education system. The new two-cycle degree system was adopted by Finnish universities in August 2005.

The statutes that govern Finnish university degrees are the Universities Act and the Decree on Degrees. The Ministry of Education is responsible for drafting these statutes and has asked the universities to submit statements on the drafts of the amended Universities Act and Decree on Degrees. The new Universities Act was adopted on 30 July 2004 and the Decree on Degrees was issued on 19 August 2004. The new Decree on Degrees will supersede the 20 field-specific decrees on degrees that were previously in force. The basic degree

consists of a lower academic degree, (Bachelor's degree, 180 credits/3 years) and a higher academic degree (Master's degree, 120 credits/2 years). The third phase of education corresponds to postgraduate studies leading to a postgraduate degree.

The Universities Act contains basic provisions on the two-tier degree structure, while the Decree on Degrees determines the responsibilities related to the provision of education and defines the broad objectives and structures of degrees. The Decree states that the one-tier degree structure may continue to be used in the fields of medicine and dentistry. The Decree on Degrees also includes regulations on diplomas and the use of the diploma supplement, and on the adoption of the European Credit Transfer System.

The objectives of a Bachelor's degree are as follows:

- (1) knowledge of the fundamentals of the major and minor subjects or corresponding study entities or studies included in the degree programme and the prerequisites for following developments in the field;
- (2) knowledge and skills needed for scientific thinking and the use of scientific methods or knowledge and skills needed for artistic work;
- (3) knowledge and skills needed for studies leading to a higher university degree and for continuous learning;
- (4) a capacity for applying the acquired knowledge and skills to work, and
- (5) adequate language and communication skills.

(New Decree of Degrees 2004, Section 7)

A Bachelor's degree consists of 180 ECTS and after that a Master degree (120 ECTS) can be started. For a Master level degree the new statute defines the objectives as follows:

- (1) good overall knowledge of the major subject or a corresponding entity and conversance with the fundamentals of the minor subject or good knowledge of the advanced studies included in the degree programme;
- (2) knowledge and skills needed to apply scientific knowledge and scientific methods or knowledge and skills needed for independent and demanding artistic work;
- (3) knowledge and skills needed to independently operate as an expert and developer of the field;

- (4) knowledge and skills needed for scientific or artistic postgraduate education, and
- (5) good language and communication skills.

(New Decree of Degrees in 2004, Section 12)

Transparent and Co-operative Governing in Finland

Nationally, the Finnish Ministry of Education has guided universities to implement the Bologna Declaration in many ways. The Ministry of Education prepared for the reform of the degree structure at Finnish universities by establishing working groups with representatives from the universities, the students and the Ministry. These preparatory working groups focused on issues related to the reform, the formulation of an internationalisation strategy and the development of quality assurance. The results of the groups' work were published in the following three memoranda: *International strategy of higher education institutions* (2001), *Report of the committee for the development of university degree structure* (2002) and *Quality assurance in higher education* (2004).

The Ministry of Education has supported the preparations for the reform of the degree structure at Finnish universities and arranged several open seminars and other meetings related to the reform. The Ministry of Education has financed networking and pedagogical projects to support the work done by autonomous universities. Universities have allocated also their own resources to revision of the degrees. The main idea has been that universities are responsible on the quality of degrees and the implementation of the reform including the European Credit Transfer System.

For every branch of university degrees the Ministry of Education has called for a national coordinator with some resources to promote national networking between universities. The national discipline-based co-ordination groups have also played an important role in the process. The Ministry of Education has funded these networks in nearly 20 disciplines for two or in some cases four years. The major groups have been in mathematics and sciences, humanities, social sciences, educational sciences and teacher education, technical sciences, law, economics, psychology and medicine. Seminars and meetings have been organised by the Ministry of Education for the coordinators. During these

meetings, representatives of universities have had many opportunities to present their views and concerns.

According to the Ministry of Education, the Finnish Higher Education Evaluation Council will arrange a follow-up evaluation of the reform of the degree structure at Finnish universities once the transition period has ended, possibly in 2009. The Finnish Higher Education Evaluation Council

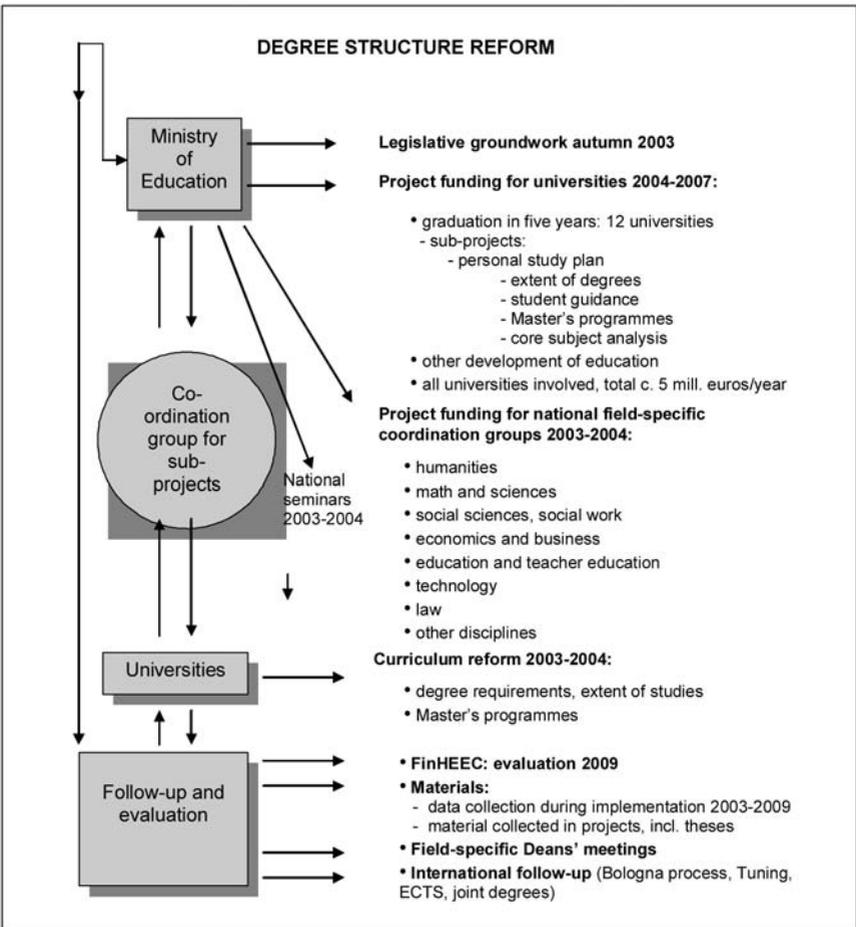


FIGURE 1. Role of the Ministry of Education in the reform of the degree structure

(FINHEEC) is an independent expert body assisting universities, polytechnics and the Ministry of Education in matters relating to evaluation. The Council organises audits of quality work and institutional, programme, and thematic evaluations. The role of the Ministry of Education is illustrated in Figure 1.

Renewing Teacher Education by Networking

For educational sciences and teacher education the reform process has been coordinated by Vice Rector, Professor Hannele Niemi with the help of the national networking project “the National-Level Coordination of Degree Programme Development in Teacher Education and the Sciences of Education”, called briefly Vokke. The project has its own websites at <http://www.helsinki.fi/vokke/english.htm> (in English). The project has a steering group with the representatives from universities, stakeholders and students’ organisations.

The main task of the national Vokke project has been to coordinate the development process of teacher education and expert programs in educational sciences (Figure 2). During the project the Bachelor’s degree programmes, Master’s degree programmes and the Doctor’s degree programmes have been renewed. Project has worked by organising working groups and seminars with stakeholders. There have been seminars focusing on innovations in methods and contents used in teacher education, schools and home co-operation, the function of artistic education at schools and in teacher education and needs in reforming education in ethics and religions. In these seminars and in 20 national working groups the representatives of universities have had opportunities to discuss, argue and make recommendations concerning the common national structures of the new degree programs and develop the curricula. So far two books have been published to support and explain the main ideas of the Bologna process in education. An article in the newspaper (*Helsingin Sanomat* the 9th of September 2005) has been published to inform ordinary people and teachers about the renewed teacher education. Also the teachers’ trade union has been active in informing teachers about the ongoing Bologna Process in its magazine, *Opettaja* (in Finnish). There has also been a working group for the new needs of continuous education of teachers and a working group to plan the third cycle education. Both of the groups have published their reports.

There have been also many international activities. Papers in international scientific conferences have been so far represented in Nordic Educational Research Association (NERA), Oslo 2005, in The European Conference on Educational Research (ECER), Dublin 2005 and in Second World Curriculum Studies Conference (WCSC), Tampere 2006 and the project manager has given presentations concerning the project also in Sweden (Växjö 2005) and in Estonia (Tallinn 2006). The project has also hosted visitors during the last year from Sweden, Estonia, German and Japan.

In addition to the national level networking, there have been also university-based, faculty-based and institute-based working groups. Therefore, this process can be seen as multilevel, multi-professional and multidisciplinary.

The national coordination project Vokke has served universities by organising very basic discussions concerning generic skills and the core elements of curricula of educational sciences and teacher education. As a part of the national level coordination, recommendations concerning the goals and main elements of all educational exams have been accepted by the steering committee of the National-Level Coordination of Degree Programme Development in Teacher

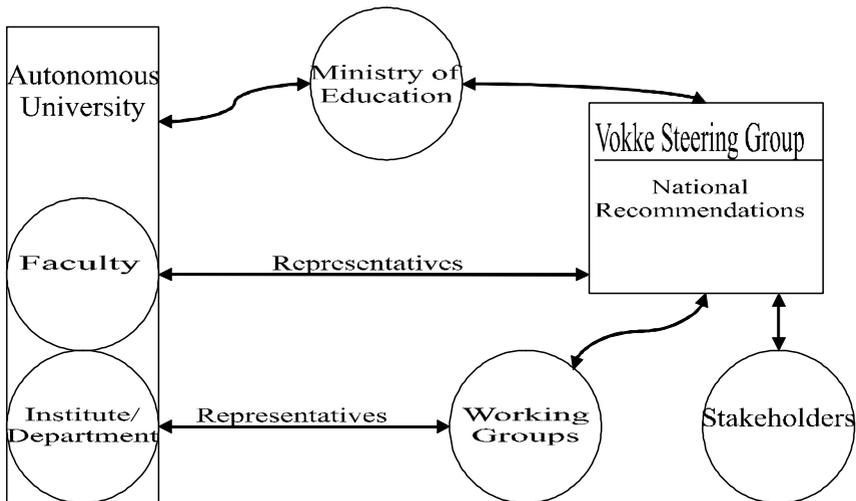


FIGURE 2. National networking for developing educational degrees and curricula

Education and the Sciences of Education. The recommendations have been based on the analysis and discussions of the national networks. The teacher education network has also had active contacts with the mathematics and science projects as well as with the humanities project. As a consequence of the co-operation, all universities will share a common structure of teacher education.

One of the most important effects of the Bologna process has been the very active process of renewing and updating the core contents of disciplinary and professional academic curricula at departments. Although there is a good consensus concerning the core contents of the curricula, every university has autonomy to develop its curricula based on its research profile and human resources.

Intensive Pedagogical Development

In Finland, the quality of academic curricula and teaching programmes as well the teaching qualifications of the teachers at universities have been the subjects of discussions recently. Many efforts to improve teaching at universities are taking place. Since 2003 there has been a national project to develop the theoretical basis for academic curriculum planning and the idea of using a personal study plan. At the University of Oulu and the University of Kuopio there has been working expert project called “W5W” (Degree in five years). This work has been financed by the Ministry of Education.

The purpose of the W5W project has been to support the Bologna process by developing tools and theory for academic curriculum design, the use of personal study plans, new methods for student assessment and methods for study-guidance. Projects have been requested to report their findings and organise national seminars free for all universities. (www.w5w.fi)

The national coordinating projects have offered teachers and researchers from different universities opportunities for discussion and reflection. Through their networks each discipline has engaged in a fundamental analysis of the main contents of the new degrees, currently referred to as an academic curriculum core analysis. W5W project has developed a method for curriculum design (Figure 3). The method facilitates the determination of the hierarchies and relationships between the skills and knowledge of a particular subject and helps to ensure that these are in proper proportion to the terms of the curriculum and the time available for learning.

	MUST KNOW	SHOULD KNOW	NICE TO KNOW
Course	The core subject matter that the student must master in view of future studies. Understanding these topics ensures the acquisition of more profound and broader skills and knowledge	Supplementary information that introduces a wider range of theoretical details and provides insight into less frequently needed applications	Special information that deepens the mastery of a specific field
FROM THE POINT OF VIEW OF ACADEMIC KNOWLEDGE			
FROM THE POINT OF VIEW OF PROFESSIONAL KNOWLEDGE			

FIGURE 3. The format of academic curriculum core analysis (Karjalainen et al. 2003)

The work of the European expert group, known as the Tuning project, has also been utilised. The following guidelines given by the European group for curriculum design were discussed especially in educational branch:

“By learning outcomes we mean the set of competences including knowledge, understanding and skills a learner is expected to know/ understand /demonstrate after completion of a process of learning -a short or long. They can be identified and related to whole programmes of study (first or second cycle) and for individual units of study (modules). Competences can be divided into two types: generic competences, which in principle are subject independent, and subject specific competences. Competences are normally obtained during different course units and can therefore not be linked to one unit. It is however very important to identify which units teach the various competences in order to ensure that these are actually assessed and quality standards are met. It goes without saying that competences and learning outcomes should correspond to the final qualifications of leaning programme. Competences and learning outcomes allow a flexibility and autonomy in the construction of curricula and at the same time they are the basis for formulating commonly understood level indicators (Conzalez & Wagenaar 2003, 24).”

This text links the higher education design to the trends that have been discussed by researchers recently: should we move in academic education from a traditional curricula to a competence-oriented curricula with measurable skills needed in performative-oriented working life? (Barnett, Parry & Coate 2004; Bowden & Marton 1998.)

Reflections concerning the structure of the curricula were very time-consuming. In the case of teacher education, there are both discipline-based and competence-based programmes, although the teacher education is very professionally oriented. As recommended by European experts, all curricula in the educational branch are based on modules with more or less explicit educational objects. Teachers involved in curriculum development shared widely the idea, that the module system together with the use of European Credit System (ECTS) enables the mobility of students and teachers.

A very challenging topic was the development of the generic skills that has been greatly emphasised by European authorities. In the educational sciences there was a consensus, that good skills in information technology and communication skills are very important for all educational experts. Practical studies are included in the curricula of teacher education as a part of major studies in order to orientate students to working life. The core and the generic skills are included in the curricula based on about same kind of analysis that has been reported by Bennet, Dunne and Carre (1999).

Along with the new curricula development, the awareness of the effective quality assurance systems has become more important. At most Finnish universities, there are projects, which are responsible to develop new ways of quality assurance. **The Finnish Higher Education Evaluation Council (FINHEEC)** has been active in supporting universities in developing quality assurance systems. Co-operation with the **European Association for Quality Assurance in Higher Education (ENQA)** has been intensive.

High Commitment of Finnish Universities

Besides these national networks each university has implemented the reform independently using a variety of administrative entities and structures. For instance, the University of Helsinki has established an internal support group to facilitate the process, and this group has interacted with several working

groups of the faculties and with cross-disciplinary networks and committees. The central administration and the whole university community have also been involved in the process. The different partners and their relationships are illustrated in Figure 4.

At every university, there have also been many kinds of topic and degree-based working groups at the level of faculties and departments. These working groups have aimed to develop curricula and degree programmes by the guidelines given by the national coordination projects and universities themselves. Most of the work connected with the Bologna process has been done at the university level but at the same time many national networks and projects have worked together to develop the new degrees. Each university has implemented the reform independently using a variety of administrative entities and structures.

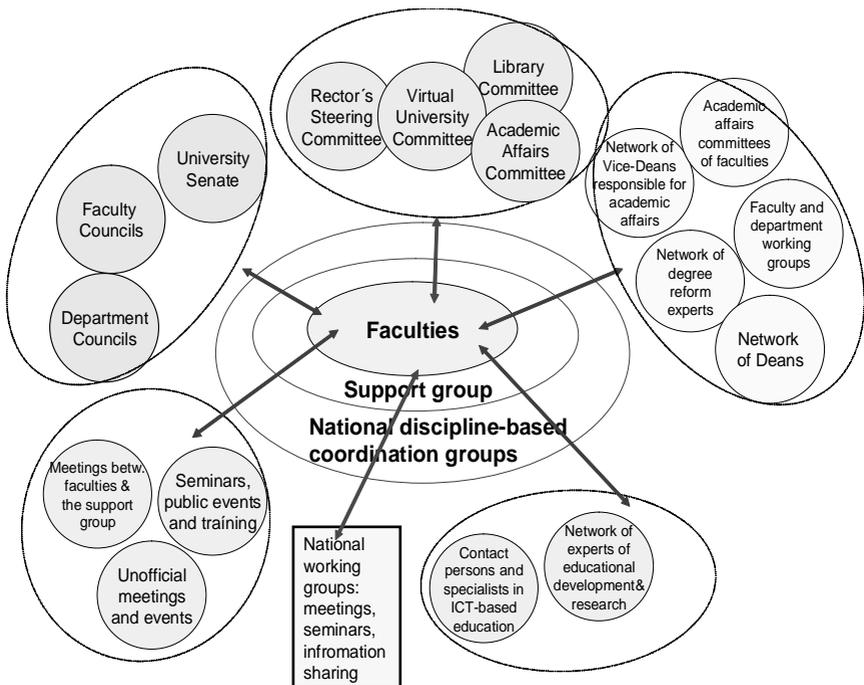


FIGURE 4. The partners of the internal Bologna process at the University of Helsinki (Niemi & Jakkuri-Sihvonen 2005)

Universities have established internal support groups to facilitate the process at the level of university, faculty and institute. These groups have worked in interaction with national working groups and with cross-disciplinary networks and committees. The different partners and societal stakeholders have taken actively part in the process. Thus, it is obvious, that the governing of the Bologna process has been transparent and co-operative between universities and the Ministry of Education and between university administrators and teachers.

Conclusion

In the case of teacher education, the Bologna process can be seen more as a phase of a joint national analysis and evaluation of the teacher education curriculum than as a fundamental structural change. Most of the work connected with the Bologna process has been done at the universities by teacher groups. Based on interviews at the faculties of Education in 2004 and 2005, the support of the national networks and projects has been important and the process has motivated many university teachers to develop their teaching praxis. Also the interest in higher education has increased during the process at many universities, not least in the departments of education. In practise, university teachers are increasingly interested to take part in courses on pedagogy, which we see as one of the most important way of improving the quality of academic education.

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