

CHALLENGES ON THE IMPLEMENTATION OF QUALITY MANAGEMENT SYSTEMS IN UNIVERSITIES IN FINLAND

Assist. Ph.D. Cristinne Anttila

Tampere University, Finland

E-mail: antillac@yahoo.com

Abstract

The option for a knowledge-based society requires investment in human resources development, to encourage employees to acquire new skills and accept occupational mobility. It is important to promote quality when they are hiring and to develop strategies for learning and training throughout life, to benefit as many people as possible.

In Finland universities are strongly committed to education throughout life (lifelong learning), in line with the Bologna Process. Changes occur in the current relationship to the distribution of public service organizations, which expand rapidly, but whose quality must be maintained in the sphere of authentic intellectual life.

Keywords: quality management systems, revolution in education, knowledge-based, lifelong learning society.

The mission of institutions providing training services to us in terms of building and managing its own image, is obviously more difficult, it is a sensitive issue. The image to be and build a trust that will depend on winning the fundamental quality benefits.

Particularly important for future graduates will be institutions that provide training services that know more precisely what will be required to make them find employment, as far as possible. The (existing or apparent) rift between education and business should be annulled by the flow of information. The key is adapting knowledge.

We speak today, more strongly, of a *revolution in education*. In most countries, education systems are subject to severe criticism, in particular, because of resistance to change, inability to cope with serious and complex problems facing contemporary people.

The option for a *knowledge-based society* requires investment in human resources development, to encourage employees to acquire new skills and accept occupational mobility.

At the same time, it is important to promote quality when they are hiring and to develop strategies for learning and training throughout life, to benefit as many people as possible.

Three major factors have been identified as playing a decisive role in transforming our society into a *learning society*. They bring with them new risks and new opportunities. The three factors identified as major challenges of contemporary society are:

- information Society;
- scientific and technical knowledge;
- internationalization.

In Finland universities are strongly committed to education throughout life (*lifelong learning*), in line with the Bologna Process. Changes occur in the current relationship to the distribution of public service organizations, which expand rapidly, but whose quality must be maintained in the sphere of authentic intellectual life.

The quality of education in universities in Finland had the ability to attract students from many parts of the globe. In Table 1 we find the report of universities in Finland and the number of students and graduates.

Table 1.

The number of registered students and graduates from universities in Finland

Number of registered students / graduates	Students registered				Students graduates			
	1981	1990	2001	2005	1981	1990	2001	2005
Universities in Finland	22.905	26.685	3.724	5.187	2.893	2.507	4.034	35.331
University of Helsinki	5.917	8.890	13.450	1.498	1.081	1.088	1.700	13.101
University of Jyväskylä	7.103	10.039	14.500	1.656	1.085	962	1.466	14.592
University of Joensuu	3.349	5.238	6.814	740	564	563	813	7.394
University of Kuopio	1.584	3.616	5.287	731	240	431	696	5.777
University of Turku	8.894	11.476	14.708	1.985	1.258	1.127	1.535	14.889
University of Tampere	8.653	11.314	14.358	1.753	1.118	1.425	1.445	14.043
University Abo Akademi	3.805	4.951	6.638	784	461	408	625	6.087
University of Vaasa	1.295	2.313	4.604	341	141	276	344	4.411
University of Swedish Lapland	457	1.703	3.745	347	50	180	391	4.763
University of veterinary medicine	245	332	-	-	60	45	-	-
University of Technology in Helsinki	7.546	11.183	14.270	2.422	688	755	1.053	13.091
University of Technology in Tampere	2.719	5.521	10.534	1.693	285	363	752	10.324
University of Technology in Lappeenranta	1.124	2.513	4.631	479	54	189	402	4.763

University of Economics and Business Administration in Helsinki	3.576	3.471	3.963	326	318	319	402	4.045
University of Economics and Swedish Business Administration	1.586	1.907	2.341	143	98	193	285	2.132
University of Economics and Business Administration in Turku	1.321	1.776	2.005	215	143	244	222	2.097
University of Art and Design in Helsinki	845	1.223	1.667	161	111	59	244	1.704
Sibelius Academy	810	1.353	1.432	126	262	104	147	1.424
Theater Academy	92	270	358	35	7	14	56	393
Academy of Fine Arts	-	-	233	15	-	-	62	231
University of Social Sciences	361	-	-	-	60	-	-	-
TOTAL	84.187	115.573	162.785	20.637	10.977	11.252	16.674	160.104

In the analysis of the table 1 we observe that the number of registered students and graduates from universities in Finland has an increasing trend in the period 1981-2001. Of the universities for 2005 show, that from 2001 until 2005 was a decrease of registered students.

Table nr. 2 presents data on the number of registered students and graduates from universities in Finland on programs of study.

Table nr. 2 shows that the number of registered students and graduates from universities in Finland on programs of study has an upswing in the period 1981-2001. The year 2005 registered an increase in the number of students registered and a decrease in the student graduates.

Table 2.

The number of registered students and graduates from universities in Finland on programs of study

Number of registered students / graduates	Students registered				Students graduates			
	1981	1990	2001	2005	1981	1990	2001	2005
Programs of study	1981	1990	2001	2005	1981	1990	2001	2005
Theology	1.450	1.841	2.575	2.602	145	160	187	5
Humanities	15.377	19.922	26.687	24.761	1.687	1.293	2.286	80
Applied Art	845	1.272	2.490	2.574	111	88	305	0
Music	810	1.353	1.432	1.424	262	139	147	4
Theatre	92	310	383	424	22	24	64	0
Educational Sciences	7.891	10.766	14.124	13.688	1.812	1.815	2.163	38
Sports	413	631	697	785	68	77	88	3
Social Sciences	8.142	11.657	16.422	16.704	947	992	1.599	69
Psychology	1.089	1.501	1.851	1.770	-	164	240	20

Medical Sciences	60	1.724	2.754	2.808	4	174	329	9
Law	3.882	3.763	4.665	4.384	481	487	595	30
Economics	9.501	11.188	16.252	17.675	894	1.142	1.660	19
Natural Sciences	12.930	15.492	24.201	24.165	1.901	1.087	2.237	118
Agriculture	2.218	2.887	3.451	3.341	265	283	359	8
Technical Sciences	13.725	22.695	34.190	32.488	1.265	1.730	2.580	125
Medicine	3.657	6.190	7.639	7.345	661	1.143	1.250	0
Dentistry	1.036	883	538	637	195	143	67	0
Veterinary Medicine	245	332	492	526	60	61	58	0
Pharmacy	824	1.166	1.709	1.772	197	354	398	5
Visual Arts	-	-	233	231	-	-	62	0
TOTAL	84.187	115.573	162.785	160.104	10.977	11.356	16.674	533

Finnish top universities are competitive not only nationally but are among the best universities in Europe and but even some are among the best of the world. In this respect, the present situation of the universities according to the place occupied in the top universities is in table nr. 3.

Table 3.

Place occupied by the Finnish universities based on ranking achieved at international level in 2007

UNIVERSITY	Ranking / Place ranking / YEAR
University of Helsinki	arwu ranking universities in the world /72/ 2007
University of Turku	arwu ranking universities in the world /202-301/ 2007
University of Oulu	Webometrics ranking universities in the world /214/ 2007
University of Tampere	Webometrics ranking universities in the world /229/ 2007
University of Jyvaskyla	Webometrics ranking universities in the world /320/ 2007
University of Technology in Tampere	Webometrics ranking universities in the world /325/ 2007
University of Technology in Helsinki	Webometrics ranking universities in the world /336/ 2007
University Abo Akademi	Webometrics ranking universities in the world /600/ 2007
University of Joensuu	Webometrics ranking universities in the world /652/ 2007
University of Vaasa	Webometrics ranking universities in the world /834/ 2007
University of Kuopio	Webometrics ranking universities in the world /839/ 2007

University of Technology in Lappeenranta	Webometrics ranking universities in the world /933/ 2007
University of Arts and Design of Helsinki	Webometrics ranking universities in the world /1077/ 2007
Sibelius Academy	Webometrics ranking universities in the world /1630/ 2007
University of Lapland	Webometrics ranking universities in the world /1902/ 2007
University of Applied Sciences in Oulus	Webometrics ranking universities in the world /2032/ 2007
University of Applied Sciences Evtok	Webometrics ranking universities in the world /2089/ 2007
University of Applied Sciences HAMK	Webometrics ranking universities in the world /2191/ 2007
Helsinki School of Economic	Webometrics ranking universities in the world /2298/ 2007
University of Applied Sciences Turku	Webometrics ranking universities in the world /2345/ 2007
Politechnica in Helsinki	Webometrics ranking universities in the world /2425/ 2007
University of Applied Sciences Turku	Webometrics ranking universities in the world /2542/ 2007
Swedish School of Economics and Business	Webometrics ranking universities in the world /2588/ 2007
University of Applied Sciences North Karelia	Webometrics ranking universities in the world /2922/ 2007
Turku Center for Informatics	Webometrics ranking universities in the world /2937/ 2007

Table 3 analyzes the place occupied by the Finnish universities based on ranking achieved at international level in 2007, and shows that the first 4 universities are ranked in Helsinki, Turku, Oulu and Tampere.

Table 4.

The number of students graduates from the master and doctoral universities in Finland

Graduates of:	Master			Doctorate		
	2001	2001-2003	2005	2001	2001-2003	2005
University of Helsinki	2.307	2.380	2.322	362	364	378
University of Jyväskylä	1.122	1.110	1.346	109	112	109
University of Oulu	1.126	1.330	1.333	111	153	130
University of Joensuu	602	700	681	58	59	53
University of Kuopio	367	385	473	60	68	89
University of Turku	1.058	1.140	1.085	113	125	137
University of Tampere	983	980	945	95	94	105

University of Åbo Akademi	410	540	504	48	55	70
University of Vaasa	299	355	358	11	16	16
University of Lapland	328	345	381	12	11	18
University of Technology in Helsinki	853	1.130	1.017	107	117	150
University of Technology in Tampere	674	760	742	48	53	65
University of Technology in Lappeenranta	363	395	491	14	23	35
University of Economics and Business Administration in Helsinki	320	380	379	16	17	19
University of Economics and Swedish Business Administration	238	215	240	14	9	15
University of Economics and Business Administration	201	220	226	8	10	8
University of Art and Design in Helsinki	111	125	158	6	6	10
Sibelius Academy	44	45	133	4	2	11
Theater Academy	128	140	82	6	5	2
Academy of Fine Arts	47	25	24	1	1	2
TOTAL	11.581	1.270	12.920	1.203	1.300	1.422

Table 4 presents the situation of students in master's graduates and doctoral universities in Finland and shows that their number is on an increasing trend in the period 2001-2003. For 2005 the Masters recorded an increase of 2.6% and doctorate from the 1.6% over the previous period as shown.

Finnish polytechnic universities have autonomy in determining their educational offer, but they are targeted by the ministry through performance on 3 years, and are monitored annually. The Ministry also establishes criteria for the initiation, suppression and evaluation of programs of study.

Starting 2005, Universities of Applied Sciences have obtained the right to offer programs of study type master. For the year 2007 the number of students enrolled at the University of Tampere in Finland was 15.000. Every year 2200 students are enrolled in master and doctorate programs. In 2007 the Tampere University's budget was 140 million. In conclusion, faculty and departments belonging to the faculty are autonomous in all matters relating to graduation, curricula and the teaching-learning process.

Major changes in graduation regulations and restrictive practices could remove the "academic freedom", so appreciated by students. Therefore, the likely solution will be working out a *plan of individual study* taking into account the life of students, periods of work or other commitments. In the new strategy for university education, Finnish official see:

- ⊙ Finland in 2010 as well and influential part of European research and education producing competitive knowledge;

- ⊙ 10.000-15.000 students in Finnish universities and polytechnics.

From the standpoint of students, standing goals of education are maintaining updated information about the labor market development and improving expert staff to broaden their opportunities for employment in the labor market. This may become true by:

1. knowing the results of recent research;
2. special skills needed to work;
3. more extensive qualifications, for example through education or updated extensive expertise in a direction of the previous range competence.

Depending on the specific SWOT analysis methodology, we have an application at the University of Tampere Finland. SWOT analysis has been conducted in light of the requirements of the implementation of quality management systems in universities, in accordance with the Bologna process. The analysis of higher education in Finland, and especially in Tampere University resurfaced the following activities as having great importance on both improving quality management systems, and creating a strategy that will allow them to distinguish market services *training requirements in line with European standards*. These activities are:

- Quality control;
- Mobility of students and teachers;
- ECTS (system of transferable credits) and new national system of credits (old);
- The graduation in two steps (+ Master).

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