

**JYVÄSKYLÄ UNIVERSITY
FINLAND**

IMPACTS OF QUALITY ASSESSMENT

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The aim of the article is to analyse the impacts of quality assessment, called “total evaluation” that was carried out at Jyväskylä University in 1992-93. Analytically, the starting point is to analyse both direct and indirect impacts of quality assessment that have led to expected and unexpected outcomes. The authors focus on the topics of teaching, research and institutional decision-making using the data gathered by interviews, through a questionnaire, and by analysing the planning documents of the University. The study is structured by comparing the international peers’ report with the actions taken at Jyväskylä University. The authors suggest as their main research outcome that the most important outcomes of the total evaluation have been indirect impacts caused by secondary measures through the definitions of research priorities at the basic units.

1. INTRODUCTION: CONTEXTS OF QUALITY ASSESSMENT

1.1. Institutional background of Jyväskylä University

Jyväskylä University has a long and strong tradition as a pilot university in initiating Finnish higher education reforms. During the 1970s a major Degree Reform was first tested at Jyväskylä University after which it was extended to other Finnish universities. The reform of university administration at the beginning of the 1980s was the second major reform that has been initiated at Jyväskylä University as well as in another Finnish university, Åbo Academy. In the late 1980s, Jyväskylä University together with the Helsinki School of Economics and Business Administration initiated a reform that aimed at increasing flexibility in the allocation of teaching resources (experimentation on the free allocation of teaching resources).

Thus, it was quite natural that Jyväskylä University (together with the University of Oulu) were the pilot universities in the implementation of institutional quality assessments. A common feature in both the cases was the focus on institutional evaluation: the main aim of the quality assessment process was to evaluate both the academic procedures (teaching) and the decision-making and administration structures at Jyväskylä University. This aim also provided the name to the quality assessment: it was called “total evaluation” (in Finnish: kokonaisarviointi). However, the nature of these assessment processes differed from each other as Sallinen, Konttinen and Panhelainen (1994) have noted. At Jyväskylä University the emphasis was on the development processes at the basic unit level, whereas at Oulu University the processes served to a greater extent the needs of institutional decision-making.

1.2. The nature of total evaluation at Jyväskylä University

At Jyväskylä University, the quality assessment was organised by the university central administration: it nominated the evaluation secretariat responsible for gathering information and writing the institutional self-study report. The quality assessment process, however, consisted of two parts. First, the departments made their self-study reports for the university evaluation secretariat. These self-study reports were then analysed and redefined by working groups organised by the faculties. Simultaneously with this process the university evaluation secretariat collected numerical data on the output of Jyväskylä University and compared it to national statistics. As an outcome of this process that lasted about a year (1992), the university evaluation secretariat revised the self-study report of Jyväskylä University. Secondly, just as at Oulu University, the self-evaluation report was analysed by an international peer-group that visited Jyväskylä University during spring term 1993 (Sallinen *et al.*, 1994). During the visit the international peers interviewed representatives of the administrative staff, university teachers and students. The international peer group consisted of esteemed academics from different academic disciplines. They were professors Allardt, Kirkwood, Kogan, Praestgaard, and Teichler. After the visit they wrote an assessment report that consisted of the analysis of Jyväskylä University and recommendations for future actions to be taken (Kogan *et al.*, 1993).

The approach taken by Jyväskylä University was a mixture of institutional evaluation and the self-study method introduced by the Dutch rectors' conference (Vroeijenstijn and Acherman, 1990). In addition, "The Jyväskylä model" was influenced by the previous discipline-based evaluations (humanities and natural sciences) with their strong emphasis on departmental self-assessment. Essentially, the Jyväskylä approach aimed at involving academics in the assessment and development processes at their departments. In this sense, the nature of the evaluation process was interaction more than institutional evaluation (Sallinen *et al.*, 1994).

1.3. The aims and methods of the study

According to empirical research, the implementations of higher education reforms have caused intended outcomes, but they have also given "rise to the achievement of unexpected and unintended results" as Cerych and Sabatier (1986, p. 243) put it. Moreover, the utilisation of quality assessments -- how much a higher education institution uses the results of an internal or external evaluation -- have been divided into active and passive use (Westerheijden, 1996). Therefore, in line with earlier research outcomes, we begin our analysis with the assumption that total evaluation has had both direct and indirect impacts that have led to expected and to unexpected outcomes. We do not believe, however, in a simple, linear, and causal decision-making model where the recommendations given during the total evaluation can automatically be connected with the changes implemented after it. We are, however, interested in the historically linear relationship between the total evaluation process and the changes related to it. Therefore, we assume that the social contexts at Jyväskylä University should be taken into account in the analysis, because many external and internal factors may have influenced the changes implemented after the total evaluation. We will focus on the topics of teaching, research, and institutional decision-making.

First, we will examine what kind of *direct impacts* (expected or unexpected) the total evaluation has had at Jyväskylä University. We will analyse which impacts (measures and changes) are directly

linked to the total evaluation process: *what measures are caused by the total evaluation?* and *what kind of changes have these measures caused?*

Our second main aim is to analyse *the indirect impacts* of total evaluation. The category of indirect impacts consists of expected and unexpected changes that have been promoted by total evaluation without visible connection to the process: *what changes are related to the total evaluation process?* and *how are they related to it?*

Our third aim is to reflect on the relationship between direct and indirect impacts. This task aims at the analysis of cultural changes the total evaluation may have promoted at Jyväskylä University. We assume that culture is born in social formations which “construct the meaning of their actions -- in other words, their cultures -- within the social relations that are formed in communicating and producing together. Change the social relations and cultures change” as Hill and Turpin (1995, p. 138) put it. We will ask: *Has total evaluation changed social relations inside the university? Has total evaluation promoted new social formations?*

We will examine these direct and indirect impacts and cultural changes both at the levels of the university institution and basic units. Our theoretical outline is presented in Figure 1.

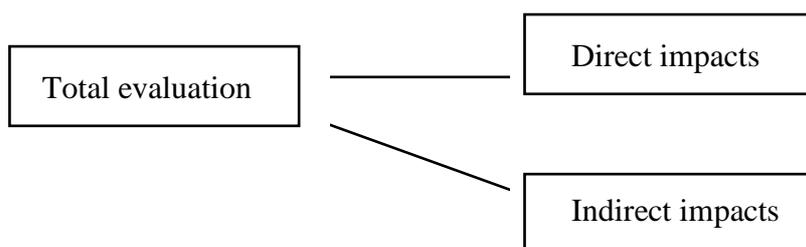


Figure 1. **Impacts of quality assessment at the institutional level: Theoretical outline**

Our examination is based on various sources: interviews, written documents and a questionnaire to the heads of departments. Methodologically, our aim is to use triangulation allowing various sources to change the emphasis given to each in order to analyse the same phenomenon from different perspectives. We interviewed 26 persons in all. They were faculty secretaries and faculty student advisors (10 persons), two representatives of the student union, both the university vice-rectors, the head of the development office, and 11 university teachers (from professors to assistants) working in different academic fields from soft-pure to hard-pure disciplines (Becher, 1989). The written documents are the university self-study report and that of the international peers, and the five-year development plans (Jyväskylän yliopiston toiminta -- ja taloussuunnitelma, TTS-plan) produced by five faculties and by the Jyväskylä University central administration. In addition, a questionnaire was sent to the heads of departments (29 persons) asking how they see the impacts of total evaluation in relation to improvements in decision-making, teaching and research. The rate of return was 66 per cent.

Our position as researchers requires also some clarification. On the one hand, we have been involved in the total evaluation process as objects of evaluation. On the other hand, we are subjects of assessment because in addition to this research we have done research on Jyväskylä University for many years (Aittola, 1983; Välimaa, 1992). This dual position gives us “local knowledge” as Geertz (1983) has put it, but it may cause problems for objective research if we are not conscious on our

commitments. However, as a result of this local knowledge we have noticed that the culture and administrative practices have changed after the total evaluation. Therefore, we will utilise this benefit of our “dual position” in the analysis of cultural and structural changes at our university.

2. IMPACTS OF TOTAL EVALUATION AT THE INSTITUTIONAL LEVEL

The main problem with the analysis of direct and indirect impacts of quality assessment derives from the nature of the higher education institutions themselves. Higher education institutions are open social systems that exist in close interaction with society (Becher and Kogan, 1992; Clark, 1983). Academically, the problem how to examine impacts of quality assessment can be formulated as follows: how to separate from each other the external processes (changes caused by the external social forces) from the internal processes (changes caused by institutional actions) at the institutional level? In order to make the distinction clear between these two interconnected processes we will compare the international peers’ recommendations to the administrative actions implemented at Jyväskylä University. In our examination, the peer review report (Kogan *et al.*, 1993) provides us with a useful document that serves our purposes, because it is analytical and contains clear recommendations for Jyväskylä University. The international peers paid attention to various problems that are related to the institutional decision-making structures and practices. In what follows, we will emphasize these themes in our dialogue to highlight the role quality assessment has played in the development of the University.

2.1. Decision-making practices and structures

The peers paid attention to decision-making bodies and their functions in several notes. In one of them they wrote:

The three year period of office of the Rector is too short for continuity of knowledge and action. A longer period should be considered (Kogan *et al.*, 1993, p. 20, recommendation 8).

Even though the period of Rector’s office has not been changed, the main stream in the Finnish higher education-policy making has been the strengthening of the managerial superstructure through national legislation. This process has been supported by the economically harsh times and by the introduction of new “management by result”-steering policy, where university rectors are expected to act as university managers responsible for their organisations (Higher Education Policy in Finland, 1996).

Senate should be able to act decisively whilst retaining its electoral legitimacy. It could make more use of ad hoc sub-committees to examine and make proposals on key issues. The University has fruitful relations with external groups which should find a place in its policy-making (Kogan *et al.*, 1993, p. 20, recommendation 9).

The deans should be associated more strongly with the corporate development of the university (Kogan *et al.*, 1993, p. 20, recommendation 10).

These recommendations have not been followed at the local level. However, the representation of external groups has been discussed both locally and at the national level. According to the interviews of faculty staff, deans have been excluded from the “corporate development of the university”. Some of the interviewed remembered, however, this recommendation. They emphasized that the

recommendation (10) should be taken seriously and deans should be incorporated into the institutional policy-making in order to make their academic communities understand and accept the decisions. This provides an example on the way the total evaluation has influenced the argumentation in the academic community.

The Library and Education Studies, however, are particularly good examples of areas where self-report might be followed by closer university attention to them by the use of ad hoc senate sub-committees, by the allocation and planning systems, and by continued self-report (Kogan *et al.*, 1993, p. 21, recommendation 22).

The recommendation concerning ad hoc-committees is a good example of the direct impact the total evaluation has had on the policy-making at Jyväskylä University. After the total evaluation rector nominated 13 committees and working groups (between 1992 and 1995) to analyse problems and to recommend improvements. In all 83 members of the University community (teachers, other staff, students) were involved in these committees. Only 20 of them belonged to more than one committee. From a cultural perspective it is significant that they met each other in a situation where the aim was to think about the University as a social entity. As to the University computer centre and library services, the committees suggested improvements that have led to structural reorganisations and caused visible changes in their functioning.

Some departments are too small to be viable and could with advantage be combined (Kogan *et al.*, 1993, p. 20, recommendation 12).

After the total evaluation, the number of departments has been reduced in social sciences, but not in the other faculties. The merger operations have been influenced by the total evaluation, because it paid (once again) attention to small departments that don't function well. However, the motives for the merger operations have been supported by the economic constraints in Finland and political calculations inside the university: larger units are more powerful than smaller ones in the internal debates.

2.2. Mission and priorities

The peers paid attention to problems in defining the mission of the University and to the ambiguity in determining priorities. In fact, the peers focused attention on the lack of strategic thinking at Jyväskylä University.

The peers wrote the following on the mission statements:

The statement of mission in the self-report does not arrive at explicit priorities based on judgements of feasibility (Kogan *et al.*, 1993, p. 19, recommendation 4).

Our criticism concern: the need to create an effective mission statement; the lack of corporate critique of the basic units' plans; the need for authority at the centre of the university to lead such critique (Kogan *et al.*, 1993, 21, recommendation 24).

After the total evaluation, the head of development office has compressed the mission of Jyväskylä University into a slogan "Culture, Quality, Accountability". It seems that these catch-words describe well the institutional goals of Jyväskylä University. Symbolically, and practically as well, the University's mission has been produced where the University exists: in the University central

administration, because central administration is the only place where the University is visible as a social entity and as an organisation (Becher and Kogan, 1992).

Furthermore, the international peers wrote:

So far, the priority approach has been modestly applied. A closer analysis of present and potential strengths and weaknesses is necessary. This should be followed by examining the potential for reallocation, particularly through creating a 'shadow' staffing structure, related to future mission, priority areas for research and scrutiny of resource needs of education programmes. Then negotiation with the Ministry on the mission can begin and a virtuous planning cycle set in motion (Kogan *et al.*, 1993, p. 20, recommendation 7).

In fact, the most visible impact of the total evaluation can be seen at the University TTS-plan document and in the corresponding faculty TTS-plans, because these documents contain several references to the peer report. The references indicate that the peer report has been used in defining functional problems of Jyväskylä University. It has also been used in institutional argumentation to help legitimise development policies. The peer report has also been a useful point of reference to show which issues have already been improved. Rhetorically, therefore, the peer report has been a useful instrument for the university's planning structures and practices, because it has structured development argumentation.

The determining of priorities has also influenced strongly the basic units' activities through definitions of priorities within research. These definitions are, in turn, related to the new institutional planning and monitoring system (TTS-planning process). We shall analyse this relationship in more detail in the next chapter.

2.3. The Reform of the university planning system (TTS-plan)

As to planning the evaluation group wrote:

Our report states some of the considerations that both the University and the Ministry might take into account in determining what kind of university it should strive to become. They include selection of priorities; supporting potential as well as actual areas of strength; ensuring that the total profile includes subjects necessary to a university identity and that lend necessary support to other subjects; and attention to both academic and regional needs (Kogan *et al.*, 1993, p. 20, recommendation 6).

The most important direct impact of the total evaluation was the reform of the university's yearly planning procedure. According to the head of the planning office, the evaluation showed a need to reform the information gathering and processing system. The reform of the five-year action and economic plan (TTS-plan) was implemented during the total evaluation process. The major problems in the former reports were their routine formula and descriptive touch. Following the procedure developed during the total evaluation, departments prepare their reports and deliver them to the faculties which discuss and prepare their TTS-plans and deliver them to the University central administration. All these reports are expected to include a critical analysis of actions taken, reflections on their strengths and weaknesses combined with future plans of action. It is also expected by the administration that faculty TTS-plans contain definitions of research priorities, "strong areas of research" (*e.g.* gerontology, mathematical analysis, evaluation research) that will guide the functioning of the faculties and departments, as well as concrete development proposals

(e.g. a new study program) which will be put forward by Jyväskylä University in the negotiations with the Ministry of Education.

The TTS-process is planned to provide the university central administration with the information needed in the consultations with the Ministry of Education. The causal relationship between total evaluation and changes in the TTS-process is not only caused by internal actions. Economic difficulties in Finland, mainly budget cuts, have made departments more willing to adopt the new evaluative procedure, because it has been politically sensible both locally and nationally. As one of the vice-rectors told us: *“Various evaluations (of teaching, learning, and curricula) have even created a kind of ‘evaluation hybris’, because evaluation has become “a magic tool” to solve various problems occurred in the higher education field”* (Neittaanmäki, 1996). It is, however, significant that assessment of activities has become part of the departments’ normal procedure. This has, in turn, had many indirect impacts on the nature of academic work at the departments. We will return to these changes in the following chapters.

3. IMPACTS ON TEACHING, LEARNING AND RESEARCH AT THE BASIC UNITS

Soon after the total evaluation process, departments shared positive attitudes concerning the total evaluation. According to a national follow-up study, 54 per cent of the departments at Jyväskylä University answered that it had been positive experience (Saarinen, 1995, p. 131). The opinions on total evaluation varied, however, when we asked the heads of departments how they see the impacts of total evaluation in institutional decision-making three years after the total evaluation. According to the questionnaire sent to the heads of departments, the most drastic changes have taken place at the institutional level, because the role of rector and central administration has strengthened after total evaluation. However, a half of the departmental heads said that total evaluation has had impact on the contents of academic work (development of undergraduate teaching and doctoral training) at their departments. Furthermore, as many as 77 per cent saw that the definition of research priorities has had a clear impact at their departments. Therefore, in order to see how total evaluation has influenced academic work we will focus our attention to the changes that have taken place in teaching and learning, doctoral training, and research.

3.1. Changes in teaching and learning

Traditionally, teaching and learning have been one of the most crucial problems in the Finnish universities. Total evaluation showed that these problems were to be found at Jyväskylä University as well. Therefore, we will begin with problems and proposals mentioned by the external visiting group. They wrote:

The University is popular and attracts a large number of applicants. We received, however, disturbing corroboration of the criticism of teaching made in the Self-Evaluation Report. There was said to be a lack of out-of-class communication between teachers and students and of individual academic advice. It may be that there are cultural reasons for this somewhat distanced approach, and a desire to avoid spoon feeding (Kogan *et al.*, 1993, p. 12, recommendation 35).

In general we feel that closer concern about teaching would be desirable as would some ice breaking of relationships between students and staff. These are reported as good in some areas but poor in others (Kogan *et al.*, 1993, p. 13, recommendation 40).

The evaluation group focused attention to unsatisfactory teaching and supervision in graduate education, lack of teacher student interaction, long duration of studies and too heavy course requirements. The issue of poor teaching was also raised before the self-evaluation during the Experiment of Free Allocation of Teaching Resources which probably helped in raising poor teaching as a problem that should be taken seriously (Välimaa, 1992; 1994). On the basis of the TTS-plans of different faculties and the interviews of the faculty members, it seems that Jyväskylä University has supported many kinds of improvements in teaching and learning after the total evaluation.

At the institutional level the notion has supported the division of duties between two vice-rectors. One of them has concentrated on teaching and the other on research and doctoral training. This redivision of responsibilities was also the starting point for the development project "Quality improvement in teaching" which is led by the vice-rector responsible for educational issues. In 1995 500 000 marks were shared by 30 projects, and in 1996 300 000 marks are shared by 29 projects. These small-scale development experimentations have supported many kinds of innovations in teaching methods. The year 1996 was named as the Year of Quality Improvement in Teaching. In order to lend support to the issue the University has started to elect a department or a teaching group as the top teaching unit of the year. The active role of the local student union needs also to be mentioned, because it has initiated different kinds of student evaluations on teaching and decision making. The student union has annually chosen the teacher of the year from the nominees named by subject matter student associations from the beginning of the 1990s. The student union also has organised student evaluations of teaching and learning in 1992, 1994 and 1995 (Vähäkangas, 1996).

Combining the issue of poor teaching with the issue of curriculum structures the peer group noted:

Academic staff were said to lack teaching skills and should receive training. Secondly, course requirements had been increased, and it was possible that this led to a competitive spiral in which different universities were reluctant to not join the tendency to increase them in case their standards were thought to be low. There was a lack of co-ordination between, and guidance on, the curricula choices that students should make. These all helped to produce the prolongation of study (Kogan *et al.*, 1993, p. 13, recommendation 39).

According to the questionnaire addressed to heads of departments all the faculties and almost all the departments have created different kinds of evaluation systems. The most typical way of conducting an evaluation has been a structured course evaluation questionnaire. These kinds of evaluations have been used in the faculties of social sciences and natural sciences, where all the courses are evaluated by the faculty and results of the evaluations are presented to all teachers and departments concerned. The faculty of sport and health sciences has favoured semi-structured open questionnaires, whereas the faculties of education and humanities have used more varied kinds of evaluations on a voluntary basis. In short, the beginning of systematic evaluation of teaching and learning has given a remarkable both direct and indirect impact on curriculum development.

The external visiting group paid attention to the unacceptably long study times and to problems related to the one-level degree structure.

Finland's average duration of study for the first degree is especially long, too long in the view of some, although the self-study report points out that the average duration at the University is shorter in most fields than the average in Finland. ...There is discussion of the possibility of creating a bachelors degree which might reduce drop out and unacceptable prolongation of duration of study. The introduction of a new system in natural sciences, mathematics and the humanities should introduce desirable flexibility in the range of student choice (Kogan *et al.*, 1993, p. 13, recommendations 37, 38).

The evaluation group stated that there is a need for creating Bachelors degree which might help in reducing drop-out and long study time. The need for a two-level degree structure has also been argued in different discipline-based evaluation reports (Mathematics, Natural sciences, Humanities). This recommendation has had a strong impact on the statement of a new two-level degree structure in 1994-95 in Finland. In Jyväskylä the new degree structure has inspired faculties and departments to create more possibilities for students to make individual choices in their curricula. The creation of a new two-level degree structure is a remarkable improvement compared to the previous rather inflexible "curricularized" degree structure which left very few possibilities for students' individual choices, which had in turn, caused many problems to the students with external-orientated study motivation and surface level knowledge processing (Aittola, 1995).

3.2. Post-graduate education and doctoral training

Total evaluation has had an important strategic role in the reorganisation of doctoral training, because it paid attention to this problem. The international peers noted:

The University plays an important role in graduate training in Finland but the need for improvement was expressed in the self-report and by a substantial number of persons we interviewed. Considerable variation was reported. Good advice was most likely to be available in persons paid by research grants. Many of those employed as assistants could focus only for a limited time on work for the dissertation. Many of those not employed by the university seemed to lack proper guidance; many faced problems in spending enough time on graduate study (Kogan *et al.*, 1993, p. 14, recommendation 41).

After the evaluation there have been considerable investments on doctoral training and post-graduate posts. In the faculties of Humanities and Educational Sciences, defining doctoral training as one of the central problems has led to a policy where deans allocate resources to support the finishing of dissertations. In both the faculties deans have given grants (5 000 to 30 000 marks) to potential dissertation authors. This is an example of the direct impact of total evaluation. The adoption of a new faculty policy is strongly supported both by the national higher education policy-making, which rewards doctoral degrees and also by the institutional policy where doctoral degrees are regarded as a basis for departmental bonus money.

In addition to these activities, doctoral training has been supported by national and local measures. At the national level, doctoral training has been supported by the foundation of doctoral programmes that is called the graduate school system since 1995. The graduate school system consists of 96 new graduate schools and it offers about 900 new full-time doctoral training posts for graduated students in the Finnish universities. Jyväskylä takes part in 27 national graduate schools being the main co-ordinator in five of them. At the local level, the system known as "rector-stipends" preceded the graduate schools. Organised in the turn of the 90s it has offered a possibility for 70 doctoral students

to concentrate on their dissertation for 1-3 years in a full-time research position. This investment in connection with better structuring and supervision of doctoral studies has clearly increased the number of doctoral degrees in the last two years. Before 1992 there used to be 25-30 doctoral degrees a year, but in 1994 the number increased to 44 and in 1995 to 59 doctoral degrees. Within five years the number of dissertations has almost doubled, and the proportional number of dissertations has raised over the average level in Finnish universities.

The evaluation group also considered the difficulties of making an academic career:

... Two other measures would require action on the part of the University but also of the government: provision of doctoral fellowships, and the establishment of an academic career position between the assistant and researcher position on the one hand and on the other the associate professor position. This would help stabilise the academic career and thus also ensure more regular supervision (Kogan *et al.*, 1993, p. 14, recommendation 43).

The national structure does not provide anything like a systematic research fellowship scheme and researchers make slow progress, if ever, to tenure through a long period of assistantship. The progress to associate professorship from assistantships is too long and difficult to traverse (Kogan *et al.*, 1993, pp. 14-15, recommendation 47).

Although Jyväskylä University has tried to improve the infrastructure of the post-graduate education, there still exist the same problems defined by the evaluation group. These are problems with: inadequate supervision, lack of time resource to be used in doctoral research, loose structure of doctoral studies, and lack of available research posts both for post-graduate doctoral students and for post-doctoral positions. Many of these problems have, however, been polarised between different faculties and disciplines. In mathematics and natural sciences doctoral studies are generally carried out in various research groups where students work in full-time research positions and where supervision is well organised by the head of the research project. In these disciplines research projects have received extra funding from private industry as well, whereas in humanities, social and educational sciences, doctoral students used to be part-time students, who earned their wages outside the university. Furthermore, the last-mentioned students used to work alone with their research topics without special funding or extra resources. Contacts with supervisors used to be occasional and loose. These problems were rooted deeply in the institutional traditions and practices and in the disciplinary cultures of these subjects (Aittola and Aittola, 1995).

The impact of total evaluation to the improvement of post-graduate education has been both direct and indirect. The main direct outcome was the creation of a new financing system for doctoral students in the faculties of humanities and education. Indirect and partially un-expected outcomes were, however, the consequences of defining the research priorities. This definition process combined with departmental profile sharing has directed the election of new doctoral students, supervision, and allocation of resources. This process has integrated doctoral training, teaching and research more closely to each other and it has given a possibility to make these efforts more efficient. Post-graduate education has become a common issue in faculties and departments, because its connection to funding is a generally known fact.

3.3. Changes in research

The international peers paid attention to three issues: the variation between departments, the management of research, and the position of research institutes. They wrote:

There is considerable variation between departments. Some reach high international standards, and others, including some with less good research reputations, might be engaged in “useful” and regionally applicable work. We note the self-report’s concern that undergraduate and graduate theses are not linked to departments’ research programmes. There is concern that the research institutes are too separate from the departments (Kogan *et al.*, 1993, p. 14, recommendation 46).

Good management of research includes encouragement to plan work well, for researchers to receive supportive but rigorous critique and to apply to the ultimate audience so that publication is well targeted. The outcome rewards system can succeed only if creative normative modelling of the research progresses suitable for individual subject areas is undertaken by research leaders (Kogan *et al.*, 1993, p. 15, recommendation 48).

Internationalisation of research has been one of the main areas of development at Jyväskylä University before and after the total evaluation. The main importance of the total evaluation was that it emphasized the issue of internationalisation of research results and co-operation. After the total evaluation departments and faculties have made efforts to increase the number of international referee-publications. The number of articles published through the referee-system has increased by 277 per cent in the last five years. Before the 1990s it was not considered important to publish in foreign languages, but today this opinion has changed also in the more “national disciplines” such as humanities, social and educational sciences. The academic community is not, however, necessarily excited about this new trend. A doctor interviewed was rather cynical when she said that *“I got high points [in the faculty of social sciences] when I published an article in English in a highly esteemed referee journal. I felt I was fooled to publish in that journal, because it has only about 350 subscribers! I never write in Finnish for so few readers”*.

Jyväskylä University also participates in the competition of “top-units” in research, where the rules are set by the Ministry of Education. The Rector and central administration have also started to allocate resources from undergraduate teaching and basic services to support new temporarily changeable development projects. These reforms are worth noticing, because academic research in Finnish universities has traditionally been free from any kind of external steering and mostly directed by academic curiosity. The definition of research priorities and the creation of research profiles in all the departments have influenced this purely academic element.

The external evaluation group has also stated that the existing research institutes (The Institute for Educational Research, Language Centre for Finnish Universities, Research Centre for Environmental Sciences) are too separate from the disciplinary departments.

There is concern that the research institutes are too separate from the departments. Each of these has its own identity and networks, but there would surely be mutual benefit if full time researchers undertook some teaching and had more contact with the more central academic community in the departments (Kogan *et al.*, 1993, p. 14, recommendation 46).

After the total evaluation various efforts have been made to increase the integration between research institutes and departments. For example, the former Language Centre for the Finnish Universities has been modified into the Centre for Applied Linguistics and it has become more closely tied with the faculty of humanities.

Changes in the financing and allocating research resources have been exceptional, because after the total evaluation the central administration has adopted more active role. The central administration and the rector have started to formulate institutional research policy which is guided by the new research priorities and new temporarily changeable development projects. The faculty secretaries and the planning director told us in the interviews that the rector and the central administration have started to take (5-10 per cent) off from the ordinary financing of all faculties and departments and to allocate these resources to new development projects which are seen institutionally important. This enables the rector to increase more flexible steering of resources to new multidisciplinary and transdisciplinary research areas. However, it has also caused some reductions in the departmental expenditure (part-time lecturers, travel, material infrastructure) causing cutbacks in undergraduate education and teaching.

4. DISCUSSION AND CONCLUSIONS

The impact of the total evaluation on the structures and cultural changes in Jyväskylä University are interwoven in many ways. As to decision-making and academic activities (teaching and research), most of these outcomes have been indirect, because changes normally are influenced or even caused by external social factors (like higher education budget cuts). Therefore, our theoretical as well as practical aim has been to find the impact mechanism of total evaluation.

4.1. Direct and indirect impacts

We have examined the impacts through the distinction of direct and indirect impacts. With the help of this distinction we wish to address the question: What is the relation between total evaluation and the changes that have taken place, when we know that there are many external factors that have influenced the changes in the University? As the majority of the departmental heads told us, there hardly exists a direct relationship between the total evaluation and changes in the basic units. Therefore, in the course of the study we needed to revise our basic model (see Figure 1) by taking into account the empirical evidence. In order to make the linear relationships more visible we divided the category of impacts into measures taken and changes occurred, even though in the real world they are interconnected with each other (Figure 2).

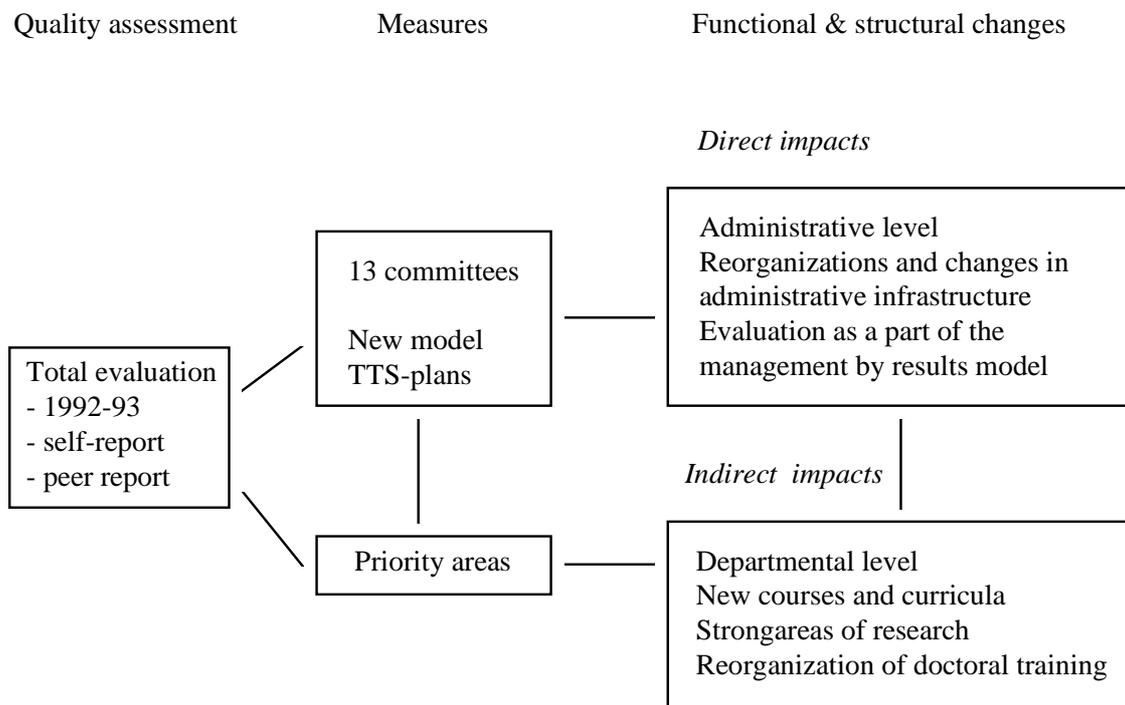


Figure 2. **Impacts of quality assessment at a university**

In our model direct impacts can be described as primary measures caused by the total evaluation. Indirect impacts, in turn, can be described as secondary measures caused by primary measures. The main differences between direct and indirect impacts can be defined as follows:

4.2. Measures

- Direct measures were initiated by the university central administration. They consisted of the nominations of committees and the reform of the university planning system (TTS-plan).
- Direct impacts took place at the institutional level.
- Indirect measures consisted of actions implemented by basic units. These consisted mainly of the definitions of research priority areas.
- Indirect impacts took place at the basic unit level (departments and faculties).

4.3. Changes

- Direct changes caused by the total evaluation have consisted of reorganisations of departments (library and university computer centre) suggested by committees. They have also consisted of the implementation of a new evaluative planning cycle

(TTS-plan) that has been connected to the management by results-system taken into use after the total evaluation.

- Indirect changes have taken place at the academic basic units. The changes were mainly related to the contents of academic work because structural changes of curricula have changed the contents of teaching. Definitions of research priorities have influenced the contents of academic research. There have been also changes in doctoral training.

The most important differences between the categories of direct and indirect changes are the different actors. Normally the leaders and initiators of the reforms are interested in causing direct -- visible and fast -- changes that can be counted and mentioned in the administrative reports. The indirect changes, however, are less visible and they take place at the basic units. In the case of Jyväskylä University these indirect -- invisible and slow -- changes were the changes that have taken place in the contents of academic work in the basic units.

In the practices of departments the secondary measure (definitions of research priorities) has been the most important exclusive measure that has caused majority of the changes in the basic units. The definitions of research priorities were the most important unintended outcome of the total evaluation, even though it was well in line with the main aims and goals of the total evaluation.

The impacts of the total evaluation at the basic units have, first, gone through the definitions of the new research priorities. These have, in turn, caused improvements in education and research. Secondly, the impacts have gone through the re-allocation of financial resources to new development projects, and thirdly, they have gone through the increased participation in international research programmes and publishing in foreign languages.

The total evaluation also promoted new practices and structures of doctoral training in three ways. First, faculties have created new financing models for post-graduate students (stipends, graduate schools). Second, all professors, docents, and doctoral teachers have been made responsible for the supervision of doctoral students. Third, post-graduate education has been organised into structured curricula which are tied to research priorities at the departments. Consequently, the number of courses for post-graduate students has been increased and they have been encouraged to participate in international networking.

The process of curricula reforms has, on the one hand, created new opportunities for integrating research and teaching, but on the other hand, it has narrowed down the supply of choices in curricula and courses. It is, however, important that the development of one's teaching is a more socially accepted activity than it was ten years ago (Välilä, 1994).

The analysis of the relationship between direct and indirect impact addresses the question of cultural change. Namely, it is a question of how to describe and analyse the conceptual change (Westerheijden, 1996) that has changed the understanding of what a university is. In order to reflect on this abstract difference we will return to the question presented at the beginning of our paper: What are the new social formations that have been promoted by the total evaluation? It seems that new social groupings of academics promoted by the total evaluation are related to new curricula structures, new forms of supervising and financing doctoral students, changes in the departmental research priorities, and to departmental merger operations. All these new social forms of academics were promoted by the total evaluation that helped to define and justify the need for reforms. The dynamics of reform has not, however, been guided only by objective evaluations of high quality, but

also by political calculations to secure resources in the difficult economic situation. Therefore, the emerging new culture is rooted in competition, political calculations, and in a strategic rhetorical game. Robert Birnbaum (1988) has described this kind of model as the political model of a university. Therefore, it seems that the total evaluation has not only promoted a reflective and evaluative culture but also supported a political culture rooted in the academic power games.

4.4. The butterfly effect?

Total evaluation was started at Jyväskylä University as a pilot project before the time of budget cuts in the Finnish higher education. The national context was favourable for this kind of innovation and evidently Jyväskylä University profited from being a pilot university. The benefits were materialised as bonus money in the consultations with the Ministry of Education. Jyväskylä University also got positive feedback in the media, because the total evaluation was noted both locally and nationally. At the institutional level the total evaluation was an obvious success.

After the total evaluation, the restructuring of TTS-plans at the different hierarchical levels of the University has had important consequences. All planning documents are now written in an evaluative and even innovative style. New plans contain detailed descriptions of development activities, statistics on various academic outputs and information on research priority areas. However, as one of the faculty secretaries told us in an interview: *“The new TTS-formula has mixed facts and fiction and created new kind of planning rhetoric. In fact, it is very difficult to find out what is actually done and what is just a plan.”*

The planning system of the University (and especially the central administration) have greatly profited from the total evaluation, because it showed in detail what was going on in the University and helped to create new databases which promote administrative planning and institutional decision making. From the perspective of central administration it is easy to see the causal relationship between the total evaluation and actions taken. The total evaluation has been a useful instrument for the central administration.

The total evaluation has also promoted new expectations to an efficient university administration. It even seems that the ideal type of “good administration” has changed during and after the total evaluation. Before the 1990s the aim of “good administration” was to remain the status quo: everything should follow the old routines, whereas the “new” mode of administration stresses the ability to change. The old administrative ideal stressed steering based on the obedience of laws and statutes, whereas the new administration is more interested in steering departments through money allocations. The old administration mode was strongly hierarchical, whereas the new ideal stresses flexible, reactive and dynamic elements. It also is willing to start new projects and carry out faster development projects.

Naturally, the description of these ideal types does not necessarily indicate that radical changes have taken place in the daily routines. However, being faithful to the Weberian idea of ideal types (Sadri, 1994) it means that the aims of good administration have changed towards a more reflective and flexible ideal. The new mode also has meant the increase of uncertainty and unpredictability in the daily work. It is difficult to see how these elements of risk society will be solved by the administrators that are trained for a routine-like and slowly changing world. It seems that there are evident contradictions inside the central administration between the “old” and “new” modes of administration.

The total evaluation process was useful for the faculties as well. According to the interviews of the faculty personnel, the total evaluation helped to discuss and define functional problems in an open situation that promoted developmental orientation in the faculties. Therefore, the emergence of focused discussion on functional problems is in itself a positive impact of the total evaluation. Furthermore, the realisation of problems also has promoted improvement activities at the faculty level. Perhaps the most obvious impact of the total evaluation process has been the realisation of the importance of quality improvement in teaching and learning. The fact that these problems were mentioned in the evaluation report and authorised by the external examiners emphasized the need for development.

The total evaluation strongly supported the process of defining the research priorities and creating new research profiles for the departments. In this way the total evaluation has to some extent changed the understanding of research in the basic units. Strongly supported by economic difficulties there also has emerged a need to create new funding sources for research. For these reasons the aims of research and teaching seem to be more practical and promotional than before the 1990s (Wernick, 1991). Furthermore, research priorities have created criteria for the election of new doctoral students to certain research fields. Important also is the change in the attitudes towards doctoral training. The establishment of graduate schools has increased the number of supervisors at the departments. Professors do no longer have the monopoly of supervising post-graduate students, because doctors (normally senior assistants and lecturers) have been given more responsibility.

The total evaluation focused attention to functional problems at Jyväskylä University. Rhetorically, the problems of the University were defined as functional problems and not as academic or scientific problems. This kind of managerialistic definition of the University has served the administrative planning system in two ways. First, it has helped to make the academic community committed to solving of functional problems. Secondly, it has provided a document that has been used after the total evaluation in the development of the University. Thus the total evaluation has supported the understanding of Jyväskylä University as a local production unit of academic degrees, whereas the scholarly dimension that combines academic communities into global academic communities of scholars is weakening (Gibbons *et al.*, 1994).

It seems that the total evaluation has had the “flight of the butterfly” effect at Jyväskylä University. Part of the significance of the total evaluation was brought about by good timing: it took place in an unstable social situation where small changes may have grave consequences. The method of self-evaluation introduced during the total evaluation initiated processes that promoted new evaluative practices at Jyväskylä University. In this sense total evaluation can be compared to the classic illustration taken from chaos mathematics according to which a butterfly stirring the air today in Peking can transform storm systems next month in New York (Gleick, 1988). Unstable social conditions were created by the economic depression in Finland and the budget cuts in the Finnish higher education (Välilmaa, 1994b). In the survival of the fittest-game, the academic basic units were also eager to adopt new procedures which would not have been possible in a very stable social situation.

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