SUMMARY

Since the late seventies, the subject of quality assurance and the use of performance indicators has become an international issue. Quality assurance, planning and resource allocation, particularly during times of financial constraints and changing demands, involves making choices between mutually exclusive alternatives each with its own combination of inputs, outputs, outcomes, impacts and benefits. Performance indicators should inform decisions, they provide a starting point from which academic and managerial judgements should be made. Performance indicators, properly defined and properly interpreted, can play a useful role in the determination of policy and the implementation of a quality assurance system on national and on institutional level. A crucial requirement is that they are a valid operationalization of what they intend to indicate, i.e. the functioning of an institution, the way an institution pursues its goals.

Evaluation and assessment have been done since many years on the basis of previously established but often unpronounced criteria. This study intends to be a valuable contribution to the development of a set of performance indicators for quality assurance for higher education. Therefore, the subject of quality assurance on the base of performance indicators is explored both in a theoretical and empirical way with the use of different research methods.

In chapter 1 a review is given of the developments in the field of quality assurance in different countries. The United States are since many years struggling to make their 'accreditation system' function in a reasonable way. Many other countries, like the United Kingdom, Australia and the Netherlands, adopted ideas and tools from the American system. Besides the United States, some countries exceeded the level of the limited scope of using a few numeric indicators (like total number of enrollments, student/staf ratio and number of graduates). Three countries took a leading position in the development of sets of performance indicators: the United Kingdom, Australia and the Netherlands. In these countries, although the context differs, the main policy lines are quite similar. Universities and other higher education institutions (British polytechnics, Dutch institutions for higher vocational education and Australian Colleges of Advanced Education) are submitted to the same developments:

- As a direct result of the economic crisis and the pressure on expenditures since 1978, effectiveness and efficiency became central concepts in managerial reports. Important aspects of effectiveness are: responsiveness to and relevance to the changing needs of society in general and the economy in particular; selectivity in the allocation of limited resources available; hard choices concerning small, weak departments; and continuous striving for improved quality and excellence in teaching.

- As never before, the university is being asked to justify itself, its purposes, its methods of attaining those purposes, its allocation of precious resources, its priorities and its responsibilities to the individual and to society. Both from within and from without, institutions of higher education are being called to account. Different tools for quality assurance are developed both on national and institutional level.
- A new level of ministerial control over higher education is established: the move towards a greater autonomy for individual institutions.

- There have been ministerial assumptions, undocumented, unproved but asserted, that universities are highly inefficient and that they must get their house in order. In getting their house in order it was included to create managerial systems with a move away from the collegian towards the administration. More specifically this meant bringing out forms of management technology, such as performance indicators that would lance the process. Moreover, the Government (or the UGC for the UK) has been taking it for granted that there will be performance indicators and that it must take a leading role in stating them. Joint working parties are established for the development of performance indicators: the joint Working Group of the Committee of Vice-Chancellors and Principals and the University Grants Committee (CVCP/UGC Working Group), the joint working party of the Australian Vice-Chancellors’ Committee and the Association of College Directors and Principals in Advanced Education (AVCC/ACDP), the Dutch 'Technische Werkgroep Prestatieindicatoren'(representatives of the government, the inspectorate, the institutions of higher education).

- In all of these three countries, there were important Government papers, released almost at the same time and with a content that is close to each other: the British and the Australian Green and White Papers and the Dutch HOAK and HOOP reports.

- The Governments’ recommendation that all universities should develop reliable and consistent performance indicators urgently for universities as a whole and for individual universities as an integral part of their planning and resource allocation process.

These developments which highlight the context of the development of performance indicators, are described and compared with each other in the first chapter.

A crucial step in the search for a set of performance indicators is the definition of the central concepts. This is the main goal of chapter 2. The concepts of 'quality', 'quality assurance', 'performance indicators', 'management statistics' and 'management information' are defined.

Quality assurance is a rolling review process, which can take place on different levels of aggregation. This process can be effective if it includes three components which are interdependent: monitoring, measurement and improvement. Some prerequisites for an effective quality assurance system are formulated.

Quality refers to something dynamic, not easily caught in something static like a definition. Quality has multiple dimensions, it is a profile based on multiple measures, with a relative meaning, since each of the different interest groups brings other priorities to discussions of quality. Specifying this description to higher education, the quality or rather qualities (a multidimensional concept) of the institutions can be seen as a profile based on a multiple or a set of indicators. In this connection, the concept of performance indicators is introduced. On the basis of a literature study, three related concepts are distinguished and defined: management statistics, management information...
and performance indicators. Management statistics are quantitative data, often related to costs, which can be used for management and control functions but do not pretend to assess performance in a comprehensive way. Management information are quantitative or qualitative data which are related to each other and structured. These data become of any importance as performance indicators if they express the contemplated actor’s goals. This means they have a contextual as well as a temporary importance. Performance indicators are empirical data which describe the functioning of an institution, the way it pursues its goals. Indicators are more general signals which can be translated or operationalized in a set of variables. These are more concrete, specific characteristics. The description of the concept of performance indicators points out the relative significance, according to the goals pursued and the contemplated level of aggregation. The main governmental goals are: quality, functionality and responsiveness, institutional profiling, efficiency and effectivity, differentiation and variation. The contemplated level of aggregation in the following chapters is the central level and the faculty level.

Performance indicators are often classified into the categories input, process and output and related to concepts as efficiency and effectivity. The meaning of these categories and related terms are described in this second chapter. Finally, attention is paid to the core uses of performance indicators: evaluation, monitoring, rationalization (or planning) and dialogue.

After describing the main concepts, a second step in the development of performance indicators is the search for potential indicators. The construction of an inventory of potential performance indicators was the result of the study of the international literature concerning the main concepts and a survey in the different institutions for higher education in the Netherlands. This inventory is presented in chapter 3. The study only concerns the prime function of teaching. The potential data are categorized into eleven performance indicators, each operationalized in a set of variables. This categorization is according to the proposed definitions of indicators and variables and according to the classifications proposed in the literature studied and the results of the survey. The potential indicators for teaching are: student in-flow, student through-flow, graduates, staff, curriculum, educational climate, financial matters, infrastructural and material facilities, available courses, institutional policy and cooperation between institutes.

Implementation of a set of performance indicators within a system of quality assurance requires a choice of a limited set of indicators and variables. This is possible on the ground of different considerations. These are described in chapter 4. International experts (e.g. Sizer, 1990; Theatre, 1990) appoint face-validity as being the central selection criterium. If one wants to get an idea of the state of health of an institution for higher education, it seems perfectly clear one wants to know by which aspects of education this can be done as correctly and completely as possible. Here the question of a valid operationalization is raised. Face-validity is the judgement on the manifesto content of indicators as representative for a theoretical concept or dimension and of variables as representatives of a certain indicator. Operationalization is a process of translation into more concrete aspects. In order to scrutinize the validity of the potential indicators and variables, the different stakeholders in higher education were asked to
answer a questionnaire. Questions were directed to determine the validity of different variables related to an indicator and the value of importance of different indicators. The population was constituted according to the multiple constituency model and the stakeholder-approach. The research results of the validity study were classified according to the level of aggregation (central level and faculty level), the subsystems (university and higher vocational education), and disciplines. The valid indicators and variables on the faculty level are classified according to the input-process-output model. They are related to the main governmental goals and a distinction is made between quantifiable and non-quantifiable variables. Some remarkable results can be mentioned. Most valid variables are not-quantifiable. Two indicators are operationalized in an extended set of variables: curriculum and student through-flow, two main aspect of the functioning of an institution. The indicator 'graduates' is hardly operationalized in valid variables, a problem which is widely discussed in literature. Most indicators and variables which are valid on the faculty level, are process- and output data. Input data are, as indicated in Britain and Australian discussions (UGC/CVCP; AVCP/ACDP), seen as institutional context or background and are often helpful to interpret performance indicators. Finally, the main governmental goals are operationalized by the proposed set of valid indicators and variables. Especially the goal of efficiency and effectiveness is represented.

An important phase in the development of performance indicators is, according to Linke (1990), the analysis of practical experiences with performance indicators. Since 1988, an external quality assurance system is implemented within the Dutch universities, under responsibility of the Association of Co-operating Dutch Universities (VSNU). The contemplated level of aggregation is the discipline. The system is nation wide and the report of the visiting committee is public. It is a rolling review process with two complementary phases: internal evaluation by the faculty, reported in a selfstudy report and visitations by external commentators. A checklist, consisting of a set of performance indicators (called 'areas of attention') is the guideline for the faculty report and the comments of the visiting committee. Chapter 5 aims to report the results of the content-analysis of the selfstudy reports and the report of the visiting committee of one discipline, i.e. the faculties of economics. The chapter starts with a description of the Dutch external quality assurance system: the purpose, the role and the functions of the visiting committees and the visiting process. Next, the reports of the visitations of the Dutch faculties of economics are analyzed. It can be concluded that most selfstudy reports present data in a descriptive way, without a critical analysis. Most faculties present data point by point and not in a coherent way, not by discussing the strong points of and areas of concern in their functioning. Valid and not valid indicators and variables are presented in the same way, next to each other, without indicating their relevance for the purpose of the quality assurance system. Three indicators are reported in the most extended way: student in-flow (a not valid indicator), student through-flow and the curriculum (two valid indicators). Comparison of the content of the selfstudy reports with the comments of the visiting committee in its report, show some differences. The indicator 'curriculum' and especially the description and discussion of the goals are important aspects of the selfstudy report, but only marginally mentioned in the
committee report. On the other hand, the committee goes into the subject of structural and organizational aspects of the curriculum and policy aspects like the existence of committees with clear and distinguished responsibilities. These are not the most relevant indicators for the aim of this quality assurance system, namely to give insight in the state of the art of education in the Dutch faculties of economics. In comparison with the faculties’ selfstudy reports, the way the committee presents its comments is much more comprehensive although some comments can be made on the extent of the report and the relevance of discussions about governmental policy. On the basis of these results, some recommendations can be formulated. The internal process of quality assurance and the visiting process could be more effective and efficient if the faculties describe their strong points and areas of concern in a more comprehensive, coherent way and by indicating the relevance of the presented data as performance indicators or context data. In that case, the visiting committee is able to concentrate immediately on ‘the heart of the matter’ as the goals and content of the curriculum. Hereby it is important to notice that if universities experience the real significance and the consequences of the justification of their functioning to society through this quality assurance system, perhaps there will be a greater willingness to present a critical analysis. The further development of institutional information systems will have a positive influence. The report of the committee can be more functional in the context of a rolling review process, if it contains more detailed comments with a short summary of the main comments for every faculty visited. More concentration on indicators as the curriculum and variables as its goals and content could be useful for attaining the main goal of this quality assurance system. Finally, only comments which the faculties can influence by direct or indirect steering are relevant topics in the committee report.