



Panel studies on higher education graduates as a contribution to quality assurance

Paper presented to the

29th ANNUAL EAIR FORUM

**26 to 29 August 2007
Innsbruck, Austria**

Name of Author(s)

Maïke Reimer
Lydia Hartwig
Susanne Falk

Contact Details

Dr. Lydia Hartwig
Bavarian State Institute for Higher Education Research and Planning
Prinzregentenstr. 24
D-80538 München
Germany
Hartwig@ihf.bayern.de

Key words

Assessment/Evaluation, Employability, Governance, Institutional Performance Measures,
Quality, Research Designs and Methodologies

Abstract:

Panel studies on Higher Education graduates as a contribution to quality assurance

Quality assessment is an important aim of the Bologna process, since the mobility of students and graduates in the European higher education area calls for confidence in the quality of qualifications. As employability is another important aim, the labour market success and the provision of the necessary competencies become important quality factors. Both in Europe and in Germany, there is consensus that the main responsibility for quality assessment in teaching and learning should lie with the individual higher education institution. At present, systematic quality management systems in higher education institutions are rare and usually still in their infancy, but their functioning in the future will depend on the availability of outcome measures. In the German Land Bavaria, the “Bavarian Graduate Panel” (Bayerisches Absolventenpanel, BAP) will be able to provide a wide range of information on competencies, the transition into the labour market and the early labour market success of graduates. To be included in higher education quality management, results and strategies must match the various stakeholders’ information needs.

Panel studies on higher education graduates as a contribution to quality assurance

1. Quality assurance: A responsibility for higher education institutions

1.1 The European framework conditions

Quality assessment is an important aim of the Bologna process. The mobility of students and graduates in the European higher education area calls for confidence in the quality of qualifications. There is a widely shared consensus among higher education policy makers and higher education institutions (HEIs) throughout Europe that the main responsibility for quality assessment in teaching and learning should lie with the HEI. The Bergen Communiqué states that HEIs should “continue their efforts to enhance the quality of their activities through the systematic introduction of internal mechanisms and their direct correlation to external quality assurance” (Bergen Communiqué, 19-20 May 2005, p. 2).

Since another important aim of the Bologna process is to enhance employability of the students, professional competencies and the labour market success of graduates move centre-stage as one important outcome of the education process. Higher education institutions are requested to foster the development of competencies of their students, to improve employability and to prepare them appropriately for a qualified job - as confirmed by the London Communiqué (cp. London Communiqué, 18 May 2007, p. 2).

You have to measure what you want to improve. This responsibility is also referred to the higher education institutions. In 2005, the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) were adopted by the European Ministers for Education. The ESG provide a framework of quality assessment at all levels – European, national and institutional. They document a common European understanding of methods and organisational aspects which are now fed back into national policies. The ESG state that “institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes of study and other activities”, in particular “student progression and success rates; employability of graduates; students’ satisfaction with their programmes” (ENQA 2005, p.18).

1.2 The political framework for quality assurance in Germany

While German HEIs are moving away from detailed state governance towards more autonomy and self-governance, accountability and transparency are becoming important principles in higher education. Unlike the QAA in England, there is no centralised national quality assessment for teaching and learning due to the fact that the German constitution ascribes responsibility for higher education to the sixteen Länder. This concerns the legal status of the universities, their financing as well as the instruments of governance and management.

Most of the sixteen *Länder* higher education acts contain regulations for evaluation and quality assurance. But quality assurance in German higher education is not in detail regulated by formal agreements, and the responsibility for implementing quality assurance models lies with the individual HEIs. For example, the Bavarian Higher Education Act declares: “The higher education institution develops a system of quality assurance and conducts external evaluation in regular intervals” (§10).

According to this allocation of responsibility, various models of quality assurance have developed in the higher education sector over the last years. In September 2005, the Standing Conference of the Länder Ministers of Education and Culture (Kultusministerkonferenz, KMK) passed a recommendation titled “Quality for Higher Education Teaching” which recommended that higher education institutions should implement a comprehensive internal quality assurance system with external components. Among other indicators like the number of students and graduates, time to degree and teacher-student-ratios, the success of graduates on the labour market is mentioned as an important indicator.

In 1998, an accreditation system was implemented to ensure the quality of the newly introduced Bachelor’s and Master’s degree programmes. Thus, an Accreditation Council established by the KMK was made responsible for enforcing comparable quality standards within a decentralised accreditation system, whereas actual programme accreditation was to be performed by accreditation agencies. The accreditation system on the one hand and the evaluation of teaching and learning carried out by the universities on the other hand can be described as the two pillars of the German system of quality assurance according to the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” (see Hopbach and Serrano-Velarde 2007).

Based on experiences from the pilot project „Process quality for teaching and learning“ conducted by the accreditation agency ACQUIN with support of the German Rectors’ Conference (and funded by the Federal Ministry for Education and Research) that combined the aim of achieving quality assurance of degree programmes with an integrated internal quality assurance system of the higher education institution, the task of the accreditation agencies has been extended recently to the accreditation of quality management systems implemented by individual universities (KMK 2007). According to the KMK decision of June 2007, the accreditation of degree programmes (“programme accreditation”) and of quality management systems (“system accreditation”) will run in parallel for the next few years.

In practice, quality management systems in universities are rare and usually still in their infancy (Nickel, forthcoming). But there is growing demand for integrated systems of quality management in universities that go beyond programme evaluation and that rely on systematically collected indicators of success and meaningful outcome parameters¹ to inform about their management activities (see e.g. Nickel 2006). The functioning of those implemented in the future however will depend on the availability of a wide range of meaningful measures that are collected objectively, with high validity, and continually and comparably over time.

Kommentar: Hochgestellt?
Kommentar: Eine Literaturangabe hier wäre schön. Muss nicht die sein, aber die hatte ich zur Hand.

Graduates are particularly suited to provide information that is relevant to a quality assurance system (see Minks 2004). Graduates can retrospectively evaluate their studies and the acquired skills in the light of their experiences with job search. Likewise, they can contribute firsthand information on their labour market experience and how well their degrees and competencies match the requirements of the labour market.

¹ Outcome measures in quality management mean a shift from looking at what institutions offer (“we are good because we offer courses in x and z”) to what institutions actually achieve and produce. This approach explicitly allows for diversity and autonomy, as the processes implemented to achieve high quality outcomes can be chosen to match an institution’s specific structure and student profiles.

Formatiert: Schriftartfarbe: Automatisch

However, resources and competencies in universities to carry out suitable long-term graduate studies are underdeveloped. This is the point where the Bavarian Graduate Panel (Bayerisches Absolventenpanel, BAP) of the Bavarian State Institute for Higher Education Research and Planning (IHF) comes into the picture. The IHF could become an external partner for the Bavarian HEIs, feeding their quality management systems with information and indicators.

2. The Bavarian Graduate Panel and its benefit for higher education institutions

2.1 Information on Labour market success of graduates: The state of affairs in Germany

As shown by Teichler (2007, p.12), there is considerable public interest in the labour market success of university graduates, but information on the relationships between higher education and work is available only on a limited scale. Official statistics in many countries provide information on the employment of graduates in different economic sectors according to age, gender and educational status, but not on the conditions of learning, the transition on the labour market, or the connection between the two.

Graduate surveys gathering detailed information on the relationship between higher education and work in order to complement the official figures exist. But in Germany, the information base is rather small and non-satisfying. The **longitudinal** graduate studies undertaken by the HIS (Higher Education Information System GmbH; see Briedis and Minks 2004; Schaeper and Briedis 2004) have a nationwide focus and are representative at the level of individual subjects, but not at level of individual higher education institutions. Graduate studies initiated by individual universities often concentrate on scattered aspects or on a small range of subjects, they are rarely repeated in regular intervals and results can not be compared across **institutions, subjects and time**. In addition, many studies are based on short questionnaires which provide limited information or have other methodical deficiencies (see Teichler 2002).

2.2 The Bavarian Graduate Panel: Approach

The Bavarian Graduate Panel was set up to fill this gap. This study is a longitudinal survey on the success of Bavarian university graduates on the labour market. In cooperation with all Bavarian higher education institutions, selected cohorts of graduates from 42 fields of study are followed over a period of seven to eight years. Data collection covers the 2004 cohort of graduates of all 10 Bavarian universities and 16 Fachhochschulen (the major non-university type of HEI in Germany). The data collection is representative for all Bavarian graduates in the selected subjects (for more detail see Falk, Reimer and Hartwig 2007; Falk and Reimer 2007).

The standardised written questionnaire (both available as paper version and as electronic version on the internet) was sent out in November 2005 to 13 000 graduates of the year 2004 one to two years after graduation. It focused on three main themes: transition into the labour market, indicators for a “successful” employment, and the assessment of subject-related and supplementary comprehensive skills from the perspective of the graduates.

The survey concentrates on the following issues:

- § Job entry: The transition from higher education into the first occupation – with special consideration of work placement and internships as well as employment during study.
- § The “early” labour market integration or success: Conditions for an “early” success on the labour market with respect to stability of employment, occupational position, income and adequacy of status and profession.
- § Genesis of competencies: How do graduates assess their subject-related competencies and key qualifications and how does their course of studies contribute to developing them?

2.3 Information from the Bavarian Graduate Panel that can be fed into a quality management system

Information on labour market outcomes

In the Bavarian Graduate Panel, one result was striking: For the majority of young people, it was worth while to study. In times of increasing scepticism about the individual and societal returns of educational investment and the ability of higher education to prepare students for qualified jobs, the overall results indicate the high quality outcome of Bavarian higher education:

- § the knowledge and skills acquired in higher education have qualified most of the graduates for a position in the qualified labour market;
- § most graduates work in the fields they were educated for;
- § most graduates are satisfied with the content and working conditions of their first job (less so with the income).

A second important finding is that the labour market success varies strongly by subject. Smooth transition into employment can be observed very frequently in Sciences (except Geography) and Engineering (see figure 1b); to a lesser (and lessening) degree in Economics and Business. Graduates in the Humanities and Social Sciences face longer search periods, during which professional skills and contacts are acquired (see figure 1a). These graduates also have first jobs with lower income and status, but the job satisfaction is nonetheless generally high.

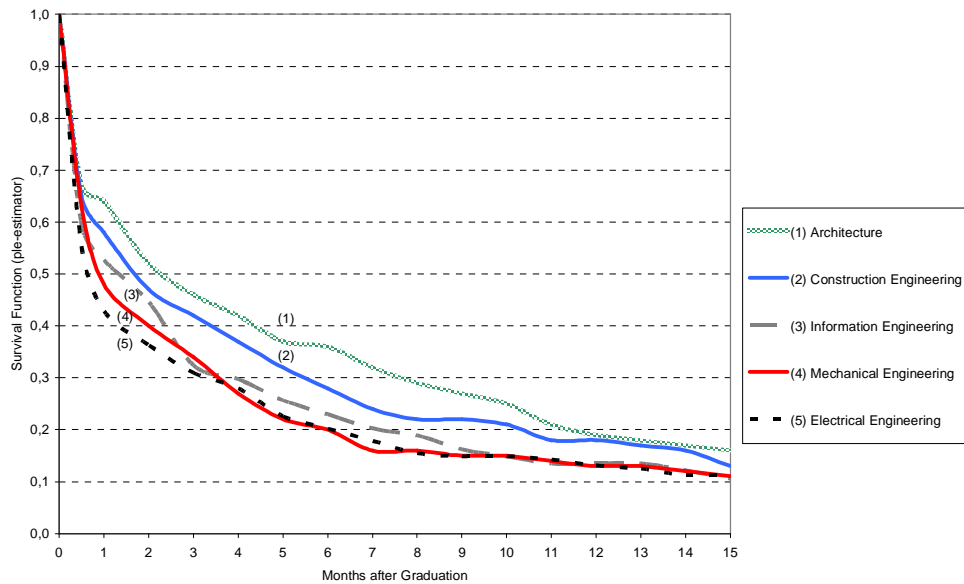


Figure 1a: Duration between graduation and the first regular employment or a doctoral degree: Graduates of universities and universities of applied sciences in the Engineering

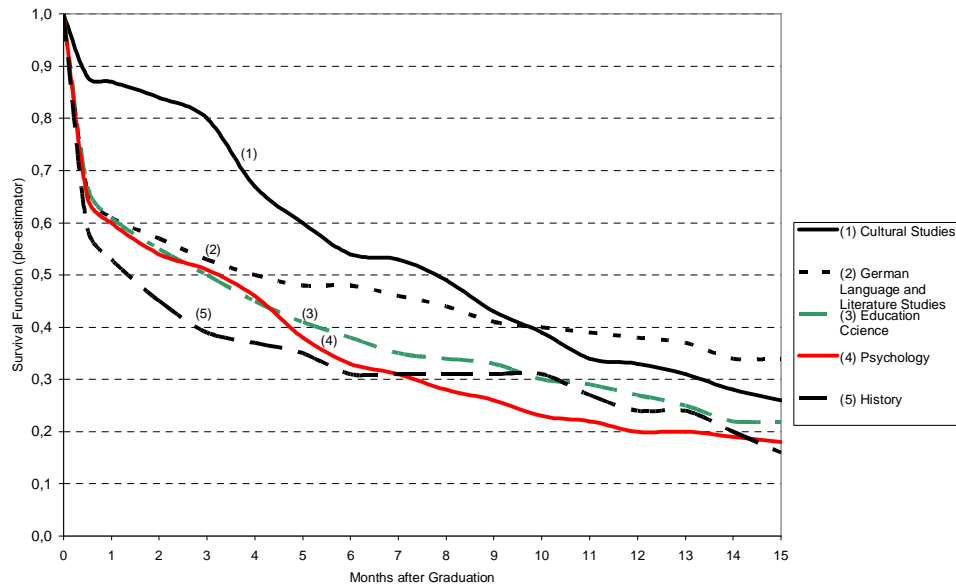


Figure 1b: Duration between graduation and the first regular employment or a doctoral degree: University graduates in the Humanities

Retrospective information about study conditions

Study conditions influence whether students can study successfully. Especially since German higher education institutions are starting to introduce fees, it becomes important that paying students meet a learning environment that fits with their goals.

The survey results show that graduates are quite critical regarding the practical orientation of their studies and guidance by academic staff as well as the acquirement of comprehensive skills, but are generally positive about the level of contact among students, accessibility of information technology and the organisation of the course schedule.

Kommentar: Schwer verständlich
 Kommentar: Graph oder Tabelle dazu?

In spite of their critique regarding some details of their student experience, more than 80 % would or would probably recommend the programme they chose to others (see figure 2). This overall judgment about the initial decision to study is especially interesting, since it is based upon and reflected in the light of the early labour market experience.

Again, marked differences between subjects become apparent in figure 2, with engineering and computer science being most frequently recommended, while the architects and construction engineers, who in Germany face less a favourable employment situation, come last.

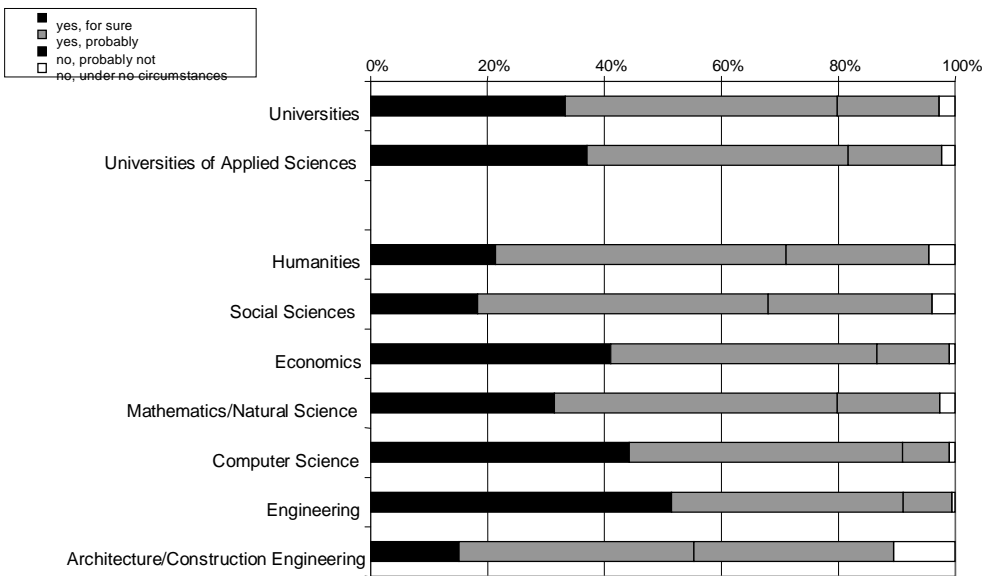


Figure 2: Recommendation of subject and university by institutional type and subject

Information about competencies as learning and teaching outcomes

An important part of the survey concentrates on how good HEIs are at imparting knowledge and competencies needed for graduates' labour market success and satisfaction. Most graduates see needs for improvement in general overarching key competencies above subject-level (i.e., social competencies) and special skills (presentation, ICT and foreign languages, see figure 3). As for the institution's contribution to their competencies, graduates generally express that the institution contributed significantly to their subject-specific knowledge and command of scientific methods, but relatively little to key skills such as self-organisation, presentation skills or social competencies. Again, however, differences between subjects are vast. These differences to some extent also reflect the different orientation of the disciplines towards imparting professional, practical, theoretical and key competencies.

Kommentar: Das ist doch keine subject-level competence?

Kommentar: Sind Schlüsselkompetenzen gemeint? Sonst vielleicht "generic skills"?

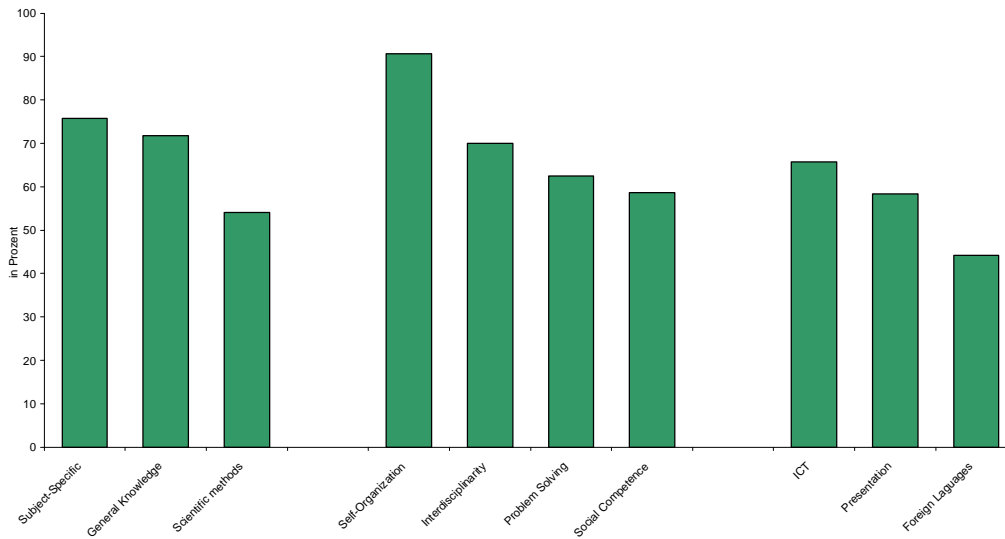


Figure 3: Professional and key competencies: percentage of graduates that report a high level of competence

Information about the factors for labour market success

The determinants of labour market success are manifold and interact in complex ways (see figure 4). With advanced techniques of multivariate analysis however, determinants of labour market success can be identified on individual and institutional levels. In the BAP, factors of success leading to a quick transition into the first employment are a short duration of study, excellent grades and certain kinds of practical experience (e. g. internships, employment during study).

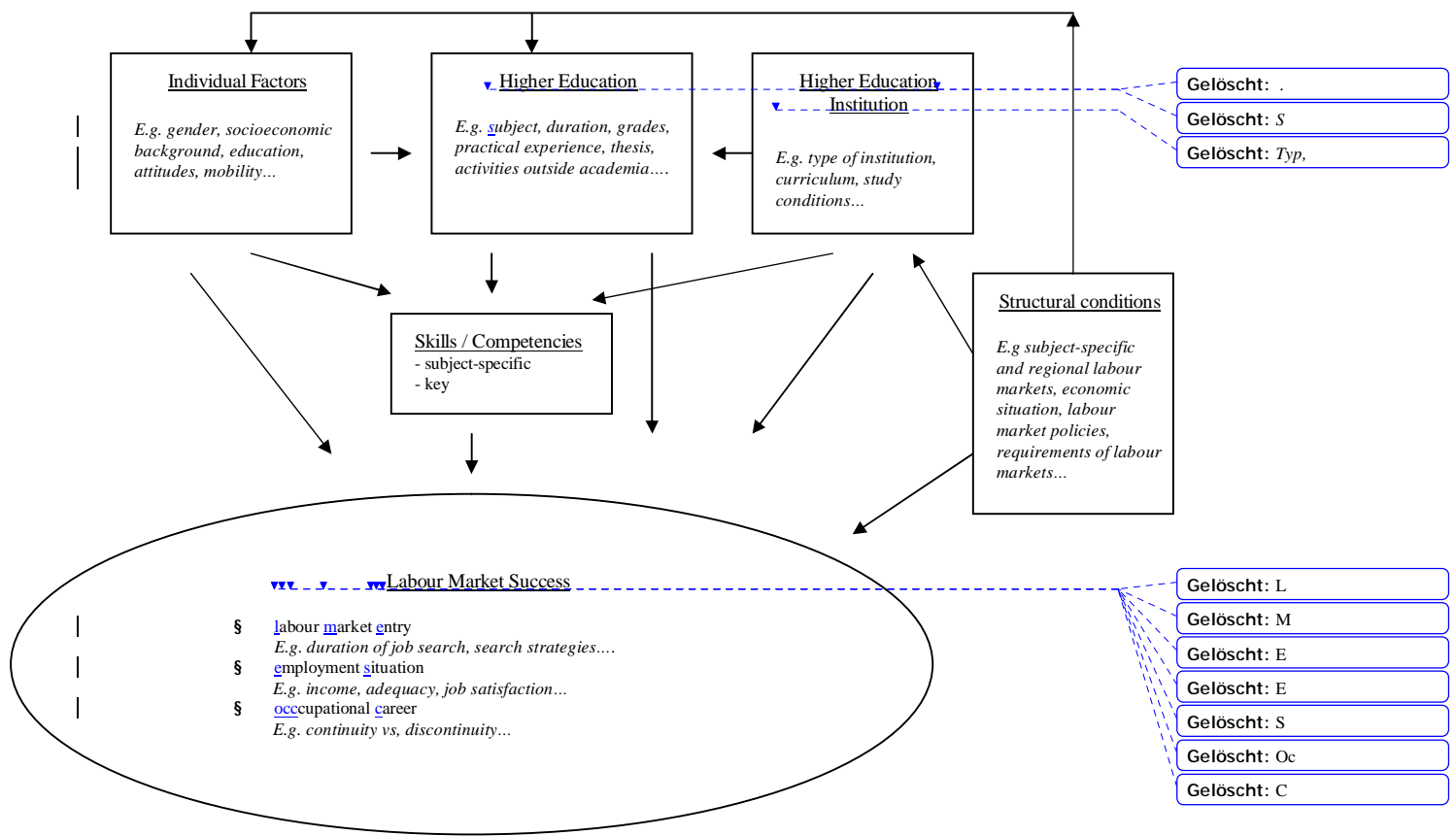


Figure 3: Factors influencing labour market success and their interactions

Information on labour markets

Graduates are in a perfect position to give firsthand information on the requirements and conditions of labour markets for recent graduates as well as further on in their career. This information can help universities to adjust their curricula. In which fields do graduates actually work? What tasks do they perform and what are the skills required? At present, institutional and economic conditions for professional careers are rapidly changing, and as the knowledge society becomes reality, the employers and labour markets increasingly demand different qualifications and competencies. Such information is also of interest in a longitudinal perspective to observe how these changes affect professional careers. They will be explored in the BAP at a later stage.

Kommentar: Immer "BAP" oder immer "Bavarian Graduate Panel"

2.4 What Graduate Studies CAN'T do

To avoid unrealistic expectations and disappointments, it should also be made clear what large-scale longitudinal graduate studies as the BAP or the HIS studies can *not* do:

- § They are not suitable to evaluate individual programmes, teachers or courses.
- § The information gathered relies on those students who completed their degree, leaving out drop-outs or subject-changers.
- § Within a single institution, the number of cases for a specific course or subject is frequently rather small.
- § They do not allow a direct and straightforward comparison of HEIs for ranking purposes.
- § Levels, means and percentages can not be interpreted as “high” or “low” without taking into account the educational and professional system, as well as economic, personal and social circumstances, all of which change over time.
- § Differences and correlations between measures can not be interpreted causally by simple uni- or bivariate comparison, but only by advanced multivariate statistical analyses.

2.5 Transfer of results: How to facilitate recognition and reception by stakeholders?

Utilising results from graduate surveys for improving higher education is not yet very advanced in Germany. In other states (e.g. the US), students are in the centre of the higher education system, and their success on the labour market is considered a key indicator for the success of the university. Universities usually have well established quality management systems that routinely look at labour market outcome parameters and include them in their activities to promote their programmes, to sharpen their profile, to plan and judge their courses and to counsel applicants, students and graduates. The Swiss Federal Bureau of Statistics systematically carries out graduate studies, the results of which are welcomed by the university administration as support of their activities (see Schmidlin 2007).

Kommentar: So gemeint?

European higher education institutions have not yet achieved a comparable level of identification with their students. As a consequence, there are no established routine channels to communicate the results of graduate surveys to staff in the HEIs. In a quality assurance system, many groups of stakeholders can benefit from the results of graduate panels:

- § University leaders and executives for quality assurance need the data for purposes of institutional self-governance and quality assurance as well as for benchmarking. The success of graduates on the labour market can also be a criterion for the (re-)accreditation of degree programmes.
- § Executives for the conception and implementation of study programmes gain important management information from graduate data for the design of curricula and the planning of the programmes offered.
- § Study counselling and career centres are able to inform students better about their chances on the labour market by using data from graduate studies.
- § University marketing which becomes more important as HEIs are building up profiles can use the success of graduates on the labour market to demonstrate the quality of teaching and learning.
- § Information on career development is also important for alumni organisations. In addition, the relationship of alumni to their former university is also an important basis for professional fundraising.

As the lively interest in the results of the Bavarian Graduate Panel has shown, there is a high demand for information on what students do after their graduation. As there are few well

developed information and quality management systems within higher education institutions, the dissemination depends first on an individual teacher's or administrator's recognition of the existence and usefulness of this data. Second, it depends on this person's active and self-initiated initiative to communicate the results via channels of communication that are usually meant for other purposes (deans' meetings, faculty meetings, newsletters, department meetings....).

Considering this, the following measures were taken when conducting the Bavarian Graduate Panel:

- § Cooperation with the participating institutions was sought early on in the project.
- § The subject-specific data and analysis are published in a report which is distributed to the public, the ministry and all higher education institutions.
- § In addition, all 26 higher education institutions which took part in the survey received a specific report with data from their institutions. The reports were officially handed over to the presidents during their regular meetings.
- § At a one-day conference, the findings were reported to invited politicians, academics and university staff at all levels of hierarchy from president to employee in the examination administration.
- § The publication of the results was accompanied by media and press activities. Scientific quality is ensured by an advisory board of social scientists and methodology experts from universities.
- § A comparison between the results of the Bavarian graduate study and the national graduate panel undertaken by HIS is planned.

In the future, with more panel waves available, the results will become even more complex and informative, allowing for interesting comparisons over time.

References

- Bergen Communiqué (2005). *Communiqué of the conference of European Ministers Responsible for Higher Education*, Bergen, 19-20 May 2005
- Briedis, K. & Minks, K.-H. (2004). *Zwischen Hochschule und Arbeitsmarkt: eine Befragung der Hochschulabsolventinnen und Hochschulabsolventen des Prüfungsjahres 2001*. Hannover: Hochschul-Informationssystem GmbH (HIS GmbH)
- ENQA (2005). *Standards and Guidelines for Quality Assurance in the European Higher Education Area*. Helsinki
- Falk, S.; Reimer, M. & Hartwig, L. (2007). Absolventenforschung für Hochschulen und Bildungspolitik: Konzeption und Ziele des „Bayerischen Absolventenpanels“. In *Beiträge zur Hochschulforschung* 1/2007, pp. 6 - 33
- Falk, S. & Reimer, M. (2007). Verschiedene Fächer, verschiedene Übergänge: der Berufseinstieg und „frühe“ Berufserfolg bayerischer Hochschulabsolventen. In *Beiträge zur Hochschulforschung* 1/2007, pp. 34 - 70
- Hopbach, A. & Serrano-Velarde, K. (2007). *From transnational co-operation to national implementation*. Paper presented at the conference “The quality assurance system for higher education at European and national level”, Berlin 15/16 February 2007
- KMK (2007). *KMK-Pressemitteilung „Ergebnis der 318 Plenarsitzung der KMK Bonn“ vom 14. 6. 2007* www.kmk.org/aktuell/pm070614b.htm
- London Communiqué (2005). *London Communiqué*, 18 May 2007
- Minks, K.-H. (2004). Absolventenbefragungen im Rahmen der Qualitätssicherung. In Hochschulrektorenkonferenz (Hrsg): *Qualitätssicherung an Hochschulen. Neue Herausforderungen nach der Berlin-Konferenz*. pp. 302-311, Bielefeld: Bertelsmann
- Nickel, S. (2006). Qualitätsmanagement. In: Pellert, A. (ed.): *Einführung in das Hochschul- und Wissenschaftsmanagement*, pp. 47-63, Bonn: Lemmens
- Nickel, S. (forthcoming). Qualitätsmanagement-Systeme an deutschen Hochschulen: Eine Fallstudienanalyse (working title). CHE Working Paper. Gütersloh: Centre for Higher Education Development.
- Schaeper, H. & Briedis, K. (2004). *Kompetenzen von Hochschulabsolventinnen und Hochschulabsolventen, berufliche Anforderungen und Folgerungen für die Hochschulreform*. Hannover: Hochschul-Informationssystem GmbH (HIS GmbH)
- Schmidlin, S. (2007). Der Einsteig in den Arbeitsmarkt. Ergebnisse der Schweizer Hochschulabsolventenbefragung der letzten zehn Jahre. In *Beiträge zur Hochschulforschung* 1/2007, pp. 100-128
- Teichler, U. (2002). Potentiale und Erträge von Absolventenstudien. In: *Sozialwissenschaften und Berufspraxis* 1/2, pp. 9-32

Teichler, U. (2007). Does Higher Education Matter? Lessons from a Comparative Graduate Survey. In: *European Journal of Education*, Vol. 42, No.1, 2007

Formatiert: Englisch
(Großbritannien)