Concept and Methodology of Tracer Studies – International Experiences

Contribution to the Workshop “Graduates on the Labour Market. Questionnaire Development at the National Level” in Sinaia, June 2-4 2010

Harald Schomburg

International Centre for Higher Education Research (INCHER-Kassel) University of Kassel, Germany
schomburg@incher.uni-kassel.de
## Overview

1. Institutional Background – who is INCHER?
2. Theoretical Framework
3. Methodology of Tracer Studies
4. The New GRADNET Approach: Network of Graduate Surveys
5. Conclusion
1. Institutional Background – who is INCHER?
University City Kassel: in the Heart of Germany, in the State of Hesse

- Located in the center of Germany and Europe
- Unique unity of urban culture and landscape
- City of the documenta
- Parks and recreational areas
- Center for industry, services and civil administration of northern Hesse
University of Kassel

- Location: in the centre of Germany and Europe (200 Km to Frankfurt = 1.5 hours by train)
- City of Kassel: 200,000 habitants
- University of Kassel
  - 18,000 students
  - 2,000 graduates per year
  - Broad study programs
Campus Holländischer Platz - 1986

Humanities, Social Science, Economics, Architecture, City Planning and Landscape Planning, Civil and Mechanical Engineering

Holländischer Platz
Campus Witzenhausen - 1886

Ecological Agriculture

Witzenhausen
INCHER-Kassel

- International Centre of Higher Education Research (INCHER-Kassel)
- The centre is 32 years old
- Research Centre of the University of Kassel
- About 20-30 researchers
- About 15 doctoral students
- Study programme: Master of Higher Education
- Research focus: Higher education and work; HE systems and structures; (international) graduate surveys (CHEERS; REFLEX; PROFLEX; HEGESCO)
- International network of graduate surveys
NEWLY PUBLISHED


September 2008: A special issue of Higher Education edited by John Brennan and Ulrich Teichler draws on the results of the “higher education looking forward” (HELF) project with five articles and a concluding article which attempts to synthesise and to set out a future long-term research agenda. All articles address scientific questions of long-term strategic concern to the future of higher education.

The HELF project aimed at developing future scenarios of developments in higher education that might help to identify priorities for higher education research. The project was coordinated by John Brennan (London) and supported by the European...
International Tracer Study Cooperation

Central America
Costa Rica, El Salvador, Guatemala, Mexico, Nicaragua, Panama

South America
Argentina, Brasil, Chile, Colombia, Peru

Africa
Cameroon, Ghana, Kenya, Malawi, Namibia, Nigeria, South Africa, Uganda, Tanzania

Asia
Indonesia, Iran, Japan, Oman, Philippines

Europe
Austria, Belgium, Czech Republic, Estonia, Finland, France, Italy, Netherlands, Norway, Portugal, Romania, Spain, Sweden, Switzerland, United Kingdom
2 Theoretical Framework
Conceptual Framework for Graduate Surveys

Input:
- Study conditions and provisions
- Students' bio data, experiences, motives

Process:
- Teaching and learning

Output:
- Knowledge, skills, motivation, grades

Graduate Survey

Outcomes:
- Transition employment, work
- Service to society

Context: Labour market – Region – Country; Socio-economic development and personal development
Key Theoretical Problems: Causal Relevance of Study Programs

1. Which indicators do we need? (search duration, employment status, income, position, level match, field of study match, work autonomy, job satisfaction, etc.)

2. How to measure the labour market signals?

3. Which factors are relevant to explain the success of the graduates besides higher education? (labour market, regional mobility, individual motivation, etc.)

4. To what extent is the professional success/career caused by HE?

5. Which elements of HE (study conditions and provisions, etc) have an impact?
3. Methodology of Tracer Studies
What are (Graduate) Tracer Studies?

- **Similar terms**
  - Graduate survey (40,700 Google hits)
  - Tracer study (98,000 Google hits)
  - Alumni research (U.S.; 99,000 hits)
  - Follow-up study (graduates) (179,000 hits)
  - Graduate career tracking (Hungary; 6 hits)

- **Target population**
  - *Graduates* of an institution of higher education (regardless the kind of degree)
  - Surveyed *after* graduation
Typical Objectives of Institutional Graduate Surveys (Tracer Studies)

1. To get valuable information for the development of the university
2. To evaluate the relevance of higher education
3. To contribute to the accreditation process
4. To inform students, parents, lecturers and administrators
## Different Design of Graduate Surveys

<table>
<thead>
<tr>
<th>Examples</th>
<th>Time after graduation</th>
<th>Cohorts</th>
<th>Length of questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>Six months</td>
<td>One</td>
<td>Short (one page)</td>
</tr>
<tr>
<td>Costa Rica (CONARE)</td>
<td>One year after</td>
<td>One</td>
<td>Medium (10 pages)</td>
</tr>
<tr>
<td>Europe</td>
<td>One to ten years after</td>
<td>One or different</td>
<td>Medium to long (10-20 pages)</td>
</tr>
</tbody>
</table>
Scope of Graduate Tracer Studies and Target Population

A. Country
   - Country A

B. Institution
   - University A
   - University B

C. Subject
   - Subject A
   - Subject B
   - Subject A

D. Type of degree
   - BA
   - MA
Objectives of Institutional Graduate Surveys in Germany

- Multi-functional surveys with broad focus
  - Employment, labour market signals, professional success
  - Competences and work
  - Retrospective rating/evaluation of study
  - Curricular development
  - Continuing education (marketing)
  - Networking, alumni databank
  - Evaluation – quality assurance – accreditation

- Multi-institutional surveys
  - Benchmarking
  - Comparison with relevant others – not with the average
Multifunctional survey – the Netherlands

- Quality assurance (and increasingly accreditation)
- Alumni-tracking
- National monitoring of transition from higher education to work
- Study choice information for school-leavers (both at national and institution level)
- Input for labour market forecasting
- Scientific and policy analyses

Source: Jim Allen (ROA, University of Maastricht, Netherlands), Kassel 2008
Multifunctional survey - Switzerland

- information for political authorities (education/employment sectors)
- benchmarking (System of indicators of Swiss higher education institutes)
- evaluation and information tool for higher education institutes
- information for career/study counselling services

Source: Andrea Witmer (Swiss Federal Statistical Office), Kassel 2008
## Graduate Survey Systems in Europe (1) (2009)

<table>
<thead>
<tr>
<th>Country</th>
<th>Regular national surveys</th>
<th>Institutional surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany, France, Italy</td>
<td>Yes</td>
<td>Frequent</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Yes</td>
<td>Seldom</td>
</tr>
<tr>
<td>Netherlands, Norway, Switzerland</td>
<td>Yes</td>
<td>Seldom</td>
</tr>
<tr>
<td>Greece, Spain, Portugal, Austria</td>
<td>No</td>
<td>Seldom</td>
</tr>
<tr>
<td>Finland, Sweden</td>
<td>No</td>
<td>Frequent</td>
</tr>
<tr>
<td>Poland, (Hungary), Estonia, Romania, Czech Republic, etc.</td>
<td>No</td>
<td>Seldom</td>
</tr>
</tbody>
</table>
## Graduate Survey Systems in Europe (2)

<table>
<thead>
<tr>
<th>Country</th>
<th>Panel</th>
<th>Multifunctional survey</th>
<th>University specific questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>France</td>
<td>No</td>
<td>(Yes)</td>
<td>No</td>
</tr>
<tr>
<td>Italy</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Netherlands</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Norway</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Yes</td>
<td>Yes</td>
<td>(Yes)</td>
</tr>
</tbody>
</table>
4. The New GRADNET Approach: Network of Graduate Surveys

Schomburg: Concept and Methodology of Tracer Studies
The Tracer Study Revolution in Germany

- Until 2007: only a few institutions of HE conducted regular tracer studies
- 2008/2009 almost all relevant institutions of HE are partners in different regional or national systems of regular tracer studies
- Coverage: about 80% of all graduates in Germany
Kind of Graduate Surveys in Germany until 2007

- International Surveys: INCHER-Kassel (CHEERS and REFLEX)
- Regular nationwide surveys: HIS (Higher Education Information Centre)
- Ranking of HE institutions, selected fields of study: CHE (Centre for Higher Education Development)
- Regional surveys: Bavaria
- Regular surveys of single institutions: seldom
  - TU Dresden, Uni Rostock
  - FH Wiesbaden, FH Aachen
- Ad hoc surveys of single faculties/institutions: frequent
The Nationwide HIS Surveys

- Only first degree
- Panel design
  - First wave: about 12 months after graduation
  - Second wave: about 5 years after graduation
- Sample: About 12,000 graduates in first wave
- Paper questionnaire
- No comparisons between single HE institutions
The Classical Approach: die University Delivers Data (e.g. Addresses)
2010: About 60 institutions of HE in Germany are cooperating in conducting regular graduate tracer studies
Key Aspects of Cooperation

- Universities and INCHER-Kassel are developing the core questionnaire together.
- Every university has an own questionnaire – INCHER gives advice.
- Central data processing – joint database.
- Every university gets customized table reports (about 500 pages).
- Benchmarking according the needs of the universities.
Organisation of GRADNET at University Level

- INCHER Team
- University Project-coordinator
- University leader
- Project Coordinator Faculty
- Task force
- Task force
- Task force Career, Alumni, ...
The German Graduate Survey Network Project

Project-coordinators from 35 universities and fachhochschulen during a workshop in Kassel; Sept. 2008
The Bridge Concept – HE Research and Application

- alumni work, attachment to institution
- student marketing, information
- external quality management (accreditation)
- internal quality development
- information and consulting
- institution/department graduate surveys
- study reforms evaluation
- topics of educational economics
- analyses on "study and work"
- further sociological topics: gender, working conditions etc.
GRADNET: Network of Graduate Surveys

- Established 2006 by INCHER-Kassel
- 2008: about 250 members
- German language
- Individual membership (email list)
- Two conferences per year
- Professionalisation of tracer study researchers
- Core group
- Initiative for the RESEARCH PROJECT „Study Conditions and Professional Success“
Background: New Challenges

- Growing competition of HE institutions
- Growing international competition
- New study structure (Bologna process)
- „Employability“
- Evaluation and Accreditation („Accountability“; “outcome assessment”)
- Growing service demand from students
- New HE management philosophy – quality management
(Future) Design of Graduate Surveys

Exit Survey → Graduate Survey I → Graduate Survey II

1-2 years  4-5 years

Time After Graduation
New Survey System in Germany: the GRADNET SURVEYS (INCHER)

<table>
<thead>
<tr>
<th>Year of graduation</th>
<th>Year of Graduate Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>1.5 years after graduation (done)</td>
</tr>
<tr>
<td>(9 HE institutions, 15,000 graduates)</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>1.5 years after graduation (done)</td>
</tr>
<tr>
<td>(48 HE institutions; 80,000 graduates)</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>1.5 years after graduation (running)</td>
</tr>
<tr>
<td>(46 HE institutions; 75,000 graduates)</td>
<td></td>
</tr>
</tbody>
</table>
The GRADNET HE Institutions (Jan. 2010)

1. Albert-Ludwigs-Universität Freiburg
2. Bauhaus-Universität Weimar
3. Bergische Universität Wuppertal
4. Beuth Hochschule für Technik Berlin*
5. Brandenburgische Technische Universität Cottbus
6. Christian-Albrechts-Universität zu Kiel*
7. Eberhard Karls Universität Tübingen
8. Fachhochschule Aachen
9. Fachhochschule Braunschweig/ Wolfenbüttel
10. Fachhochschule Dortmund
11. Fachhochschule Erfurt
12. Fachhochschule Frankfurt am Main
13. Fachhochschule für Ökonomie und Management Essen
14. Fachhochschule für Wirtschaft und Recht Berlin
15. Freie Universität Berlin
16. Fachhochschule Wiesbaden
17. Georg-August-Universität Göttingen
18. Heinrich-Heine-Universität Düsseldorf
19. Hochschule Anhalt
20. Hochschule Bremerhaven
21. Hochschule Fulda
22. Hochschule für Bildende Künste Braunschweig
23. Hochschule Offenburg
24. Hochschule Vechta
25. Humboldt-Universität zu Berlin
26. Johann Wolfgang Goethe-Universität Frankfurt am Main
27. Justus-Liebig-Universität Gießen
28. Leibniz Universität Hannover
29. Martin-Luther-Universität Halle-Wittenberg
30. Merz Akademie für Gestaltung Stuttgart
31. Philipps-Universität Marburg
32. Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen
33. Ruhr-Universität Bochum
34. Ruprecht-Karls-Universität Heidelberg
35. Technische Universität Berlin*
36. Technische Universität Darmstadt
37. Technische Universität Dortmund
38. Technische Universität Ilmenau
39. Universität Bremen
40. Universität der Künste Berlin
41. Universität Hamburg
42. Universität Karlsruhe (TH)
43. Universität Kassel
44. Universität Konstanz
45. Universität Osnabrück
46. Universität Paderborn
47. Universität Rostock
48. Universität Siegen
49. Universität Stuttgart*
50. Universität Ulm
51. Universität zu Köln
52. Westfälische Wilhelms-Universität Münster

* Did not participate in the 2009 survey
## Design and Conduction of the GRADNET Surveys 2008-2010

<table>
<thead>
<tr>
<th>Cohort of graduates (year of graduation)</th>
<th>Pilot 2008</th>
<th>Survey 2009</th>
<th>Survey 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participating institutions of higher education</td>
<td>2006</td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Used addresses</td>
<td>15,200</td>
<td>86,800</td>
<td>76,000</td>
</tr>
<tr>
<td>Valid addresses</td>
<td>12,800</td>
<td>75,000</td>
<td>70,000</td>
</tr>
<tr>
<td>Responses</td>
<td>6,300</td>
<td>37,500</td>
<td>33,000</td>
</tr>
</tbody>
</table>
| Response rate                            | 49%        | 50%         | 50%         |-
Response Rate of the Survey 2009, by Higher Education Institution (%)

Quelle: INCHER, KOAB Absolventenbefragung 2009; Jg. 2007
Cooperation for development

- Every university has an individual questionnaire (2009: 160 surveys were administrated at the same time by INCHER-Kassel)
- Every university has a project coordinator
- At least 6 training workshops per survey
- Every university received the cleaned data and ready to print table reports of about 500 pages
- Many universities published the results in the internet
- A lot of internal and external dissemination activities
- 2009 survey: dataset with 36,000 graduates
Implementation of the German Network Approach

- Address database of the HE institution
- Update of addresses by HE institution
- Four contacts/send outs
- Contacts by letters and/or email
- Combination of paper and online questionnaire
- Response rate should be about 50%
Selected Results of the German GRADNET Survey 2009 (participants: 36,000 graduates)

1. Successful cooperation for development among 50 HE institutions in Germany
2. Graduates of the year 2007: optimal labour market conditions in Germany – a success story
3. Negative scenarios do not find empirical support – no trend towards a „Generation Trainees“
4. Differences by field of study are less important
5. Remarkable good employment conditions for Bachelor graduates
6. Growing relevance of soft skills
7. Reputation of the HE institution seems to be not important
8. BA graduates have not less international experiences
9. Transition to first job depends on own initiatives
10. Master – the winners of the Bologna process
5. Conclusion
Schomburg: Concept and Methodology of Tracer Studies

Status of Research on Causal Relevance of Higher Education

- How college affects students? (Pascarella/Terrenzini, most comprehensive synthesis report, 2005)
  - Little evidence
  - Little net effects of programme quality

- Still in search of usable knowledge (Peter Ewell, National Center for Higher Education Management Systems (NCHEMS))
Many Open Questions

- How to measure study conditions and study provisions
  - Does program quality matters for employment outcomes?
- Which student characteristics must be controlled?
- What are the best indicators of employment outcome and professional success?
- How to conduct surveys efficiently with high quality? What are the standards for quality?
- How should the data be analyzed to gain usable knowledge?
Outlook

- The success of cooperation should be established on an international level
  (European Higher Education Area - The Bologna Process – 46 countries)

- (International) exchange of concepts and experiences
  INCHER cooperates with Indonesia, Oman, Romania, and many other countries

- (International) cooperation between universities → International data base

- International network

- International projects
Further information

- http://www.uni-kassel.de/incher/absolvent
  - The German Graduate Survey Network
- http://www.his.de
  - The HIS Graduate Surveys
- http://www.ihf.bayern.de
  - The Bavarian Graduate Panel Survey
THANK YOU