DEHEMS project

Theoretical papers – Exkurs: Content of a Graduate Survey Questionnaire

Work Package 5
Country: Germany
The following chapter shall give an overview about the typical content of a graduate survey questionnaire in order illustrate the presented model of Analysis in Higher Education in chapter XX. The REFLEX questionnaire (which can be found in the appendix) serves as an example for a possible selection of questions and their order. In the REFLEX questionnaire are some questions which are recommended to be included in each graduate survey (core questions) whereas others could be defined as optional, which are not necessary for each survey but rather depending on the individual research focus. Taking a concrete questionnaire as an example enables to read exemplary formulation of questions and gives an impression of the format and structure of such a questionnaire.

Questions about the study programme

The first part of the REFLEX questionnaire deals with the study program of the addressed graduate. It collects data about the name of the study programme, its duration and degree type as well as preceding study programmes. These are necessary "core" variables for a later differentiation of the results by study field and university and are used as independent variables for e.g. the analysis of career success. The question about the study programme has a prominent role. It is one of the most important questions for later analysis and should therefore be collected with great care. In contrast to the open formulation in the REFLEX questionnaire a closed question formulation, offering a list of study programmes, avoids spelling mistakes and later coding-processes. The disadvantage is that one needs a list in which each student can recognize its study programme which is manageable on university-level but hardly realizable on a national level.

Another core question is about the average exam grade. This is a very important output variable and does not only serve as independent but also as dependent variable. One classical research question would be which factors do influence study success measured by final examination grade.

The following questions in the part about the study programme are describing the input (study conditions and provisions) as well as the process variables (Teaching and learning). They are important variables but - depending on the research focus of the study - could also be shortened or omitted. The questions operationalising the process variable are those questions dealing with study behavior and extra-curricular activities (A4, A8, A10). Questions collecting data to describe the input are questions about the study programme itself like teaching and learning modes (A7) or vocational/academic orientation of the programme (A6).

Other educational and related experiences

In this part the main educational input variables are collected. The prior school experience and final mark are important explanatory (independent) variables for the transfer to the labour market and later professional success. A possible research in this regard is for example, if an over-average examination mark has an influence on the final graduation mark at university or indirectly on the professional success.

In most European countries student lives are not only reduced to the university experience itself but rather also characterized by family, voluntary work, hobbies and a student job. That is why a couple of questions in this part are dealing with the topic of non study-related work experiences as they have a major influence on the study behavior. Additionally, they may have an influence on the transfer to the labour market as many employers to value extra-curricular activities and competences gained by them. One typical assumption is - for example - that students having a part-time job are less successful in their studies as their study time is reduced.
Finally, this part collects data about additional study experiences and/or gained qualifications (PhD included) before or after the study programme concerned. These are important explanatory variables for the analysis: A previous study experience is on the one hand another variable describing the individual background of a student (input) and has on the other hand an influence on the teaching and study behavior during study (process). It is assumed, that students with study experience have a different motivation and a different study behavior. Furthermore, they can compare their latest study experience with the former one. Something a first-time student cannot do. A later study experience or additional gained qualifications is another output variable influencing the outcomes on the labour market.

In the context of the Bologna discussion, the transfer of Bachelor graduates to master programmes delivers information about the mobility of students between subjects and institutions. Furthermore, it is a measure for the students (and employers) trust in the employability of the Bachelor programmes. Also, the PhD quota plays a specific role in this context. First of all, it gives an impression about the percentage of students staying in science. Furthermore, it shows subject specific differences in the labour market transfer. In some subjects a PhD already is seen as an obligatory third cycle and accordingly expected by the employers.

**Transition from study to work**

This part is quite short in the REFLEX questionnaire and does mainly contain so-called core questions describing the job-search process of the graduates. A so called filter question (Have you ever had paid work since graduation….) already sorts out those graduates who have either never looked for work or have never worked. The others were asked about details of their job search: Start of first employment, start of job search, length of job search and successful methods/channels of job search.

The start and successful methods of job search are helpful information for the career center and student counseling of the university. This information helps not only to improve the counseling activities but also the timing of the institutional career activities. The begin of the job search can be used to analyse in how far an early start (before graduation) improve the chance of a successful and short job search.

Additional question in this context (not included in the Reflex questionnaire) could be a question about the number of employers contacted and the number of received interview invitations. Both are indicators for the labour market situation and the effort and motivation of the graduate.

**First job after graduation**

The part about the first job after graduation tries to describe the characteristics of the first job in so much detail as possible. Referring to the presented model, the here collected variables are helping to describe the outcome of a university study. Most questions in this part are so-called core question. They should be collected in order to have a full picture of the job-characteristics for the analysis and in particular to analyze the different aspects of professional success. In the analysis these variables are mainly dependent variables - which factors are influencing professional success - but they can be also used as independent variables for example to compare different job situations; e.g. a comparison of the working conditions in the public and privat sector.

Questions in this part cover the following aspects:

- Occupation or job title
- Main task or activities on the job
- Economic sector of employment
- Kind of employment: Self-employed or employed
• Type of contract (unlimited, fixed-term)
• Number of regular/contract hours
• Gross monthly earnings
• Initial training period (obligatory)

Besides of these "objective" questions, graduates are also asked to assess the adequacy/appropriateness of their job in regard to the level of their degree (vertical adequacy) and their studied field (horizontal adequacy). They are also asked to what extent they were utilizing their knowledge and skills and if their work demanded more knowledge and skills than they could offer. These "adequancy" variables refer to one of the main discussion of the mass higher education process: Do higher education graduates still find adequate work? For the higher education management, the answers can be used to analyse the in-adequate employments by study behavior, study success and job search strategies.

**Employment history and current situation**

The part about employment history and current situation collects data about the time period between first and current job. Detailed characteristics are only asked for the first and the current job, so this part more or less covers the time in-between as well as general questions about the working and life situation. One core question in this part is how many employers the graduates had since graduation. This is necessary information for analyzing job mobility of higher education graduates. Furthermore, it is asked if the graduates were unemployed and if yes how long.

Optional questions are covering the aspect of further education or other training (isn’t’t E4 a European labour market survey question?), currently job search activities and the role of social networks.

**Current employment**

The part of current employment repeat the questions already asked about the first employment. This enables to analyze the differences and the question of upward-mobility. Questions in this part cover the following aspects:

• Occupation or job title
• Main task or activities on the job
• Kind of employment: Self-employed or employed
• Type of contract (unlimited, fixed-term)
• Number of regular/contract hours (more differentiated surveyed than for the first job)
• Gross monthly earnings (more differentiated surveyed than for the first job)

Also the questions about horizontal and vertical job adequacy are repeated for comparative purpose. Collecting such information for the current job is particularly important for those subjects in which the transfer to the labor market is less smoothly than in strongly professional oriented subjects. A useful additional question in this area could be to ask for possible reasons for job-inadequacy. Often an inadequate job was a voluntary decision due to other obligations like family work or interests in other fields than the own. Asking for reasons therefore often relativise statements about general job-inadequacy.

Finally, a few additional (mostly optional) questions are added due to the research focus of the REFLEX project. In the case of self-employed graduates it is asked on how many clients they are depended. All graduates are asked about their participation in work-related advanced training. A very rich question for the international comparison was the question about estimated time to become an expert in the
respective field of study. This is definitely not a core question for the purpose of higher education management, but it delivered fascinating similar results across national differences in higher education systems.

**Work organization**

The part about work organizations covers many questions about the organization in which the graduate is current employed and the job itself. Several questions of these are not core questions but are rather based on the research focus of the REFLEX project. In the following only those questions are discussed which should be included in most graduate surveys.

Firstly, this part contains questions which belong to the description of the current job and could have also asked in that previous chapter, like: economic sector and private or public sector. An important question in this regard is the question for the place of work. This delivers very valuable information about regional and international mobility of graduates and is one of the core questions of a graduate survey. For the Higher Education Management, this information shows if they educate graduates for the regional, national or international labour market. In particular, this is a relevant question for small Higher education institutions outside of urban areas. Another interesting information is the size of employed organization (G14) in order to judge about the attractiveness of one's graduates and the job characteristics of the graduates. Big international companies have different demands for competences (e.g. international competences) than small or medium-sized firms.

**Competencies**

The self-assessed competences are one of the main parts in most graduate surveys as this question collects the subjective output at the end of one’s study programme which is then offered to the labour market. Typically, two questions are asked. One question collects the self-assessed competences at the end of the study programme and a second question asks for the required level of the same competences at work. A comparison of answers to both questions enables to analyse areas in which students are over- and under-prepared for work which are valuable results for the development and evaluation of study programmes. The self-assessed competences are a feedback of the graduates which can be used as a basic to adjust originally defined occupational fields and competences of one study field. They can also be used to develop new courses for key competences or create a new study specialization.

The REFLEX questionnaire departs from this traditional form competence question. Instead of asking about competences at the time of graduation, it asks for own competences at the time of the survey. As the competences at time of the survey can be strongly influenced by the first working experiences and other life-circumstances, the influence of the study programme and the university diminishes which is why the traditional form of question formulation is recommended. Another respectively additional question could be to ask in what extent the university has contributed to the current competency level. In some graduate surveys all three questions (level of competencies at time of graduation, extent of university contribution and required level at work) are included in the survey.

**Evaluation of study program**

This part covers question in which the graduate is asked to retrospectively assess the study conditions and provisions (input variables). The answers to these questions deliver important information for the quality assurance and management of higher education institutions. It is postulated that nobody can judge better about these factors than graduates who went through the whole study programme. If an
university conducts an individual graduate survey, the question in this part should be carefully adapted and complemented by institution specifics. Individual adapted questions have the advantage that graduates recognize familiar terms and also the higher education management can use the results more effectively if the questions are matching the institutional situation. Valuable analysis in this regard are differences in regard to gender, subject, age or location of campus.

In this part also at least one question belongs about student satisfaction. This is normally operationalised by asking if one would study again, if he or she would study the same subject and if he or she would choose the same university. This satisfaction variable is an interesting indicator for the quality management, the student marketing as well as the Alumni Officer.

Further questions belonging to this concept are those covering the area of "drop-out" rate. The question of drop-out is not covered by the REFLEX study but is included in most national and institutional graduate surveys. Normally, two questions are asked. First a filter question, filtering out those question who have never thought about drop out. A second question is than offering a list of common drop-out reasons as well as an open field to enter individual - not listed - reasons. Again, the answers to these questions help to improve the student services, the student counseling and to improve the overall quality management. In an institutional research oriented graduate survey with the intention of quality improvement, these questions should therefore be included.

**Values and orientations**

This part about values and orientations collects data about the job orientation and in how far the graduates were able to find jobs in which they find their job orientations fulfilled. This question is very relevant if besides of objective and "hard" factors of professional success like income also soft and subjective factors shall be analyzed. In particular, job satisfaction can be analyzed in detailed if information about job orientation is collected.

Higher education management should not only discuss and compare the objective factors of professional success or the job adequacy but also consider individual job satisfaction as well as job orientation as these factors can relativize positively or negatively the objective measurable professional success. In particular, small subjects or institutions for fine arts are more interested in these "soft" factors than factors like income or type of contract which are hardly suitable for their graduates.

**Socio-biographic data "About yourself"**

Many questionnaires of graduate surveys collect socio-biographic data at the end of the questionnaire as this is relatively easy to answer for the respondents. Core questions are those, which are valuable and interesting break and independent variables, like questions about:

- Gender
- Year of birth (Age)
- Nationality or ethnical background (country of birth of)
- Family background (children, age of children)

For the analysis of social discrimination and social selection through higher education, one important question is about the educational background of ones parents (K11). The REFLEX questionnaire also asks about the educational background of ones partner, which is very interesting for sociological studies.

Questions about international mobility should also be included in a graduate survey. The REFLEX survey does this only to a minor degree and at a not very prominent place in the questionnaire. Most
graduate surveys use more questions for this topic. They are not only asking if somebody was abroad, but they are also asking for the detailed purpose, the country of destination and - if applicable - about the support programme like ERASMUS. Another relevant question for the analysis of international mobility is the question if somebody did apply for a job abroad or worked abroad for a limited time. The results to these questions are not only very relevant for the international office but also for the strategic development of the university.

**Topics not included in the REFLEX questionnaire.**

The research focus of the REFLEX survey was an international comparison of graduates in regard to the new demands of professionalism and flexibility. That is why some question areas are missing, which are typically included in an institutional graduate survey.

One of these topics, are alumni relations. In this part the graduates are asked if they are interested in a further contact to the university and if yes, in what form: like club, open yearly meetings, newsletter. This question should be always adapted to the institutional specifics if such offers already exist. This question can be used to analyze student retention and serves as a data base for the alumni office. Some university already asks at this point if they may contact the graduates for the purpose of alumni work or if they make send an alumni newsletter. Another area of interest for higher education management today is the question of further learning. Many universities ask their graduates if they are or if they would be interested in some kind of further learning, mostly part-time master courses.

Secondly, it is recommended to add some open questions at the end of the questionnaire in which the graduates can give general comments to the questionnaire itself and in particular about their study programme. An example would be: What was best/worst about your study programme? What would you improve/change? What did you miss in this questionnaire? These questions can deliver very valuable input for the quality management of the university and can also be used to improve the questionnaire for the next graduate survey.

**Summary/Conclusion**

...will follow