

TRACER STUDIES

EVALUATING THE IMPACT OF TRAINING PROGRAMMES



Education and training systems have a key role to play in ensuring that opportunities are provided for all individuals to develop their skills continually in a lifelong learning perspective, enabling them to adapt to rapidly changing labour market requirements and conditions. Training and labour market policy makers decide on the configuration of education and training systems, employment policies and investments. Training institutions decide on the type and content of the training courses to be delivered. Individuals and their families decide on their own education and training, while employers take decisions on how to enhance the skills of their workers.

Tracer studies provide information that is valuable for all these actors; and this helps to inspire education, training and employment policies, curricula of education and training courses, guidance to help individuals decide on their education or training paths, and clearer judgements about (re)-skilling the labour force.

Tracer studies can be defined as retrospective analyses of graduates through a standardised survey, which takes place some time after graduation (normally between 6 months and 3 years). Tracer studies are also known as graduate surveys, alumni surveys, or graduate tracking. Normally, the target population is a homogenous group of students / trainees who finished their studies at the same time (generation or graduation cohort). Tracer studies are common in higher education, but are becoming more and more popular



Contents

- // TRACER STUDIES AND WHAT THEY ARE FOR
- // TYPES OF TRACER STUDY
- // TRACER STUDY IMPLEMENTATION
- // CHALLENGES AND SUCCESS FACTORS
- // EXAMPLES

in vocational education. The general objective is to evaluate medium to long-term impact of education programmes. More concrete objectives include improving the education and training content and study conditions, improving the transition of graduates from education to the labour market, and to better matching the supply of skills with the demand for them. Tracer study questionnaire topics can vary considerably, but often include questions on study progress, the transition to work, work entrance, career, use of learned competencies, current occupation and bonds to the

education institution.

Tracer studies should be distinguished from School to Work Transition Surveys (SWTS), which do not exclusively survey graduates who have finalised a training / education programme, or who are from a homogeneous cohort or generation. In the case of school to work transition surveys the target population is broader as it covers a sample of youth under a certain age (normally between 15 and 29 years)¹.

Tracer studies can be a very valuable tool that contributes to the labour market information system, particularly when certain criteria are followed. Tracer studies have to be done systematically (repeated yearly or every two years) since ad hoc studies, normally done as a follow up to a concrete project, tend to give only a partial picture and may be affected by the context when it took place.

The questionnaire should have a core part that is repeated at different points in time to allow comparison and better understanding of the situation. Tracer studies that fulfil these two conditions (systematic and consistent) can be powerful labour market information tools to be used for policymaking.

TYPES OF TRACER STUDY

There are different types of national tracer study², ranging from very centralized to very decentralized. The more traditional types are based on a centralised approach. In this case an institute (private or public) or a department within a ministry, conducts the survey according to the needs of a ministry (Ministry of Education and Training or Ministry of Employment). In centralised tracer studies, the role of individual institutions can be minimized to provide the addresses of the graduates of one cohort. In some cases, they might also send invitation letters to their former students to encourage their participation. The main objective of this type of tracer study is to inform ministries and other central bodies about the labour market success of the graduates. They normally use the same questionnaire for all institutions, and since the focus is at the central level rather than individual education and training institutions, reports are normally done at national level. They can be a valid instrument for analysing skills mismatch at national level, in combination with information from other sources.

A different type of tracer study has a more decentralised nature and aims for more input from education institutions. The origin of some of these studies is based on the network approach: cooperation between different providers which had previously conducted their own tracer studies and which have joined their efforts (this has been common between higher education institutions).

Another type of decentralised tracer study is not based on a network approach but on the decision to create a system of tracer studies. Although tracer studies are normally planned at central level, they are decentralised because education institutions have an important role in their implementation. For this reason, there is a significant focus on building the capabilities of these institutions on the use of evidence. In decentralised tracer studies, the focus on getting feedback for improving the study / training programme or on understanding the relationships between education and work is higher than in centralised ones. This feedback for curriculum development is often the most important aspect of institutional tracer studies.

Analysis at the level of each institution becomes a very important way of transforming feedback on the study programme into improvements in the study conditions and content. Nonetheless, information on job search, employment conditions and use of competences at work are also gathered. Tracer studies can also be used to analyse mismatch at national level, and to improve education / training and employment policies even when they are decentralised.

¹ Some transition surveys are implemented to all youth under a certain age (i.e. the recent ILO School to Work Transition Surveys), or only to those youth under a certain age that are no longer in education or training (i.e. ETF School to Work Transition Surveys in Syria, or Serbia). In both cases the target are youth (between 15 and 29 years old), and they are part of various generations or cohorts. The focus, as well as the objectives of transitions surveys are broader. Rather than understanding what happens with a concrete cohort when they finalise an education programme, the objective is to shed light on what happens with youth in one country in an age where they are supposed to enter the labour market.

² Tracer studies done to a concrete education or training institution are not include, since the objective of this training is to put forward tools that might contribute to the creation of a labour market information system.



Tracer studies can give very important information³ about skills matching through the combination of objective and subjective data from the graduates. Apart from being able to measure the employability of graduates, and obtain feedback to improve the study programme, tracer studies allow aspects of horizontal matching (relevance of field of study for the tasks done in the job) and vertical matching (appropriate position regarding the level of formal qualification) to be measured. Also, they can help to answer questions such as:

- a. What happens to graduates after leaving the education institution?
- b. Were they able to get paid employment in an acceptable time?
- c. Do they use the skills and competences they have acquired in their education/training? If not why?
- d. What are the skills and competences required by the labour market?

Tracer studies are flexible tools that allow the combination of a core questionnaire, where key elements are systematically asked, with ad hoc modules that allow information on aspects that are important at one point in time, or that are important for concrete institutions (or fields of study) to be gathered. The table shows some of the modules with the minimum number of questions that could shape a tracer study.

The final decision on the modules to be included, and on the length of the questionnaire, depends on the objectives established and the different stakeholders involved in the design. Tracer studies are tools that can serve different stakeholders, and as many as possible (education / training institutions, employers, ministries, researchers) should be actively involved in the design of the different phases, including the questionnaire.

TABLE 1: MODULES AND NUMBER OF QUESTIONS OF A TRACER STUDY QUESTIONNAIRE

Module number and title	Minimum Questions
A. The course of studies at the TVET institution	2
B. Internship and work experiences during course of studies at the TVET institution	2
C. Evaluation of study conditions and study provisions at the TVET institution	2
D. Satisfaction with study	3
E. After graduation from the TVET institution	5
F. Employment and work	12
G. Work requirements	1
H. Relationship between study and employment	6
I. Work orientation and job satisfaction	3
J. Vocational education/training before your study at the TVET institution	3
K. Further vet or higher education after the study at the TVET institution	2
L. Further vocational/professional training	2
M. Demographic information	2
N. Migration and regional mobility	2
O. Your comments and recommendations	3
Total	50

³ By objective data we refer to answers about topics where the judgement of the graduates does not apply, for instance whether they are working, how long it took them to find a job, or their salaries. By subjective data we refer to judgements and evaluations, for instance about the study conditions, about the use of their competences on their current job, or about their job satisfaction.



TRACER STUDY IMPLEMENTATION

There are three basic steps in carrying out a tracer study: conceptualisation, collection of data and its analysis. Each phase is of equal importance to reach the final objectives. It is mainly during the first phase that the individual aspects of implementation are decided. The collection phase is crucial for gathering reliable information. The analysis and dissemination are key to converting the tracer studies into an information tool.

1. Phase 1: concept and instrument development; preparation of data collection. At an early stage the key objectives, the target population (all students / a sample of students), the time after graduation when graduates will be reached⁴ should be decided, and the questionnaire should be prepared and tested.
2. Phase 2: data collection. In this phase the survey team needs to have the instruments for implementation (necessary tools, training), and the survey has to ensure high participation (good contact database, reminders). There are different data collection methods, and a decision on the most appropriate will influence the costs and the number of responses gathered. Personal interviews with each graduate can be used, although they have a high cost. A mail survey is effective, and sometimes telephone surveys can alone, or as a complementary measure, work as well. An online survey can be efficient in reaching graduates and often has lower costs.

3. Phase 3: data analysis and dissemination. There are some technical aspects for proper coding and data storage, as well as data analysis and interpretation. One (or more) report(s) will summarise implementation and analysis. Dissemination of the results and the link with other labour market information tools is a necessary step that will ensure that the results of the study will reach all the users. Proper attention to this phase is essential to ensure the effectiveness of the study as a labour market information tool.

The different decisions on the implementation of a tracer study affect its final cost, which might range from very cheap (i.e. an online tool, without investment in new staff / material) to very expensive, if investments in staff, computers, web pages for result dissemination, phone calls to reach students, or printed and mailed questionnaires are needed.

One element that conditions the final success of a tracer study is the response rate. A higher response rate is normally associated with higher reliability. The higher the number of graduates that answer the questionnaire the more possible it becomes to generalise the results. It is difficult, nonetheless, to set a specific number, since there are many factors that affect reliability. The design of the tracer study or the funds available will influence the response rate.

⁴ One of the key elements is when graduates are going to be contacted. It is recommended between 1 and 2 years after graduation. This allows former students to have gone through some job search, to have likely obtained a stable job, and to be able to judge the extent to which their skills and competences are used, and are adequate to their job. A shorter period, particularly in those context where youth have more difficulties in finding a job, might not give information on work related aspects.



CHALLENGES AND SUCCESS FACTORS

There are some challenges that will be faced in the implementation of successful tracer studies that are common to all surveys, and others that are specific to tracer studies. In any survey it is very important to reach the target group, design a good questionnaire with a reasonable length, and define the adequate methods to collect the data. Tracer studies have specific challenges linked to the institutional setting, or the capacity of the different actors involved (particularly the education or training institutions in decentralised tracer studies).

Success factors include:

- Having clear objectives establishing the reasons for doing the tracer study and defining the population to be tracked.
- Designing a well structured questionnaire, of good quality and proper length. There should be a core group of questions that are repeated consistently over time to allow different generations to be compared (and properly control the contextual elements that might affect graduates). The questionnaire needs to balance the content (depth of the information to be collected) and the length; too short a questionnaire might not give the appropriate answers to the questions; questionnaires that are too long might disincentivise respondents.
- Establishing the appropriate institutional setting able to implement, analyse and disseminate the

results. In order to be sustainable, tracer studies have to define roles and responsibilities of different actors, and must ensure that they have the proper capacities to develop their roles and responsibilities.

- Reaching the target group and getting a good response rate. The higher the rate of responses, the more reliable the results are able to reflect the real situation, perceptions and evaluations of graduates.
- Interpreting the results appropriately, and with the right level and depth of analysis. This is a drawback in many tracer studies, and a very important challenge for any of them. Tracer studies should answer the questions of different stakeholders; make the results understandable for the right audience; and make as much as possible out of the data collected⁵.
- Developing a good methodology report. Detailed documentation of survey procedures (target group, explanation of the different elements of the implementation phase such as the method chosen to gather students, the response rate, the timing of the implementation...) is very important. This helps in the implementation of the tracer studies in a similar way at different points in time (crucial for comparability of the results), and in a correct interpretation of the results.



⁵ In some cases the involvement of research institutions help in this phase. TS are very reach in data, particularly if they are repeated in a regular basis, and researchers might be interested in using this data to shed light on research questions that might be of interest for the scientific community, as well as for the policy-makers, the education institutions and the future students. A combination of more descriptive and analytical reports and scientific reports is the ideal situation.



EXAMPLES

Kyrgyzstan started to collaborate with the ETF in 2013 to conduct a tracer study on vocational education and training institutions. The approach is decentralised, with the vocational schools and colleges in charge of sending the invitations, but also carrying out the data collection and some analysis through an online platform (QTAFI). Each school only has access to its own data, while the central body has access to all data and is in charge of preparing a report for all institutions. The tracer study is conceived by a panel, and the same population is contacted in two phases. The first phase (exit survey), takes place at the very end of the academic year, when the target group are final year students. This questionnaire focuses on the teaching and learning process and conditions, final year practice, possible work experience gained during studies and plans for the future. The second phase (employment survey) takes place around 9-11 months after graduation. In this phase, the school/college contacts the same population (graduates who finished their studies in the previous academic year). The questionnaire used for the employment survey covers issues such as job seeking, the current employment situation (including quality of employment), the use of skills and participation in further education and/or training. The reason for splitting the questionnaire into two phases is to increase the response rate. The tracer is repeated yearly.

The former Yugoslav Republic of Macedonia is conducting a tracer study as part of a skills observatory in the country (conducted for the first time in 2016). The tracer study will provide feedback for improving VET and higher education. A broad range of employment and work as well as prior learning experiences are included in the questionnaire. The tracer study focuses only on one group of pupils/graduates who have finished their education from TVET and High Education institutions in 2014/15. It is implemented with the support of the ETF, and the approach is centralised. The education institutions are in charge of collecting the addresses of the graduates, sending an invitation to each graduate and disseminating the results. The central body is in charge of gathering the information (through an online platform, QTAFI, complemented with telephone interviews), analysing the results and creating the national report (<http://www.graduates-survey.mk/en/about-the-tracer-study>). The exercise will be repeated yearly.

In Germany, the KOAB, a network of higher education institutions, has developed a tracer study over the last ten years (<http://www.uni-kassel.de/einrichtungen/en/incher/research/research-area-students-and-graduates/koab-the-german-tracer-studies-co-operation-project.html>). The approach of this tracer study is centralised, being the institutions in charge of the contact details of the graduates to the coordination body, and sending invitations to the graduates. The coordination body (a research institute) is in charge of gathering the information, creating separate reports for each institution, and a joint report for all institutions, as well as research papers on different topics based on the analysis of the data gathered. The study is designed as a panel study, that is, graduates are contacted more than once: 1.5 and 4.5 years after graduation. This gives information about graduates at the stage of their initial entry into the labour market and again when they have gained some experience. The target population is composed of all graduates from the same cohort.

In the Netherlands, the Research Centre for Education and the Labour Market (ROA) is the coordination body for the implementation of centralised 'School Leavers Survey' since early nineties. The school leavers survey include all the graduates of the upper secondary education, upper secondary vocational education and higher education, who are approached in 1.5 years after graduation. The surveys among different groups of school-leavers have been strongly standardized and serve as a monitoring instrument for the transition from school to work, covering almost the full breadth of the Dutch education system. The data generated by the school leaver surveys are made available for scientific research purposes and disseminated by DANS (Data Archiving and Networked Services), an institute of the Royal Netherlands Academy of Arts and Sciences (KNAW).





REFERENCE READING

ETF-Cedefop-ILO (2016), Carrying out tracer studies - Guide to anticipating and matching skills and jobs Vol. 6, available at: http://www.etf.europa.eu/web.nsf/pages/Vol._6_Tracer_studies

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