Universität Basel

Rektorat

Guide to the
Formative Degree Program Evaluation
at the University of Basel

Please note: Only the original German language version of this document is authoritative. This English translation is only intended for assistance.

Universität Basel | Rektorat | Ressort Hochschulentwicklung | Qualitätsentwicklung
Simon Degen | 2019

1 Introduction

This guide is intended for members of the university who are directly involved in a Formative Degree Program Evaluation and/or interested in the procedure. It is designed to familiarize readers with the purpose, implementation, and benefits of a Formative Evaluation; to help them understand how an evaluation works; to facilitate participation in the procedure; and ultimately to ensure and increase the usefulness of the evaluation. The structure of the guide roughly follows the course of the evaluation process. A graphical overview of the process, including the most important milestones, can be found at the end of the document.

2 What Is a Formative Evaluation?

The University of Basel's Formative Degree Program Evaluation is an improvement-oriented evaluation[1]. Using academic methods, it provides the persons responsible for degree programs with additional information on the strengths, weaknesses, and need for action in their degree program. The Formative Degree Program Evaluation is intended to facilitate the step-by-step improvement and further development of degree programs and subjects[2]. To this end, it has been designed so that the persons responsible for degree programs and the faculties can determine the thematic priorities themselves and the procedure can be adapted to the needs of the subject area. Specifically, this means that a subject area evaluates its degree program with support from Quality Development; it does not mean that a subject area is being evaluated. Accordingly, ownership of the evaluation lies with the persons responsible for the degree program. It is possible to limit the evaluation to one or more individual aspects of a degree program (targeted evaluation) or to evaluate the quality of teaching in general (comprehensive evaluation). The content, effort, and design of a Formative Evaluation can therefore vary considerably.

Throughout the evaluation process, work is divided whenever possible in such a way that the advisory group's time resources (→ Chapter 4) are used sparingly and only for the necessary steps, which are usually specific to the subject area.

Example 1:
It has been observed that the dropout rate in a master's degree program has been very high for several years. To determine whether action is needed, the persons responsible for the degree program require additional information. As part of the targeted Formative Evaluation, comparative figures from other universities and cohort analyses are obtained and analyzed, and a survey of students who discontinued their studies is conducted.

Example 2:
A degree program has existed in unchanged form for many years, but several positions will be filled in the near future. A comprehensive Formative Evaluation is conducted to identify the strengths and weaknesses of the degree program and take them into account in the appointment procedures. Students, graduates, and lecturers are surveyed.

1 Most of the terminology and the approach used in this guide are based on the planning book by Lars Balzer and Wolfgang Beywl. See: Balzer, L. and W. Beywl, 2015: Evaluiert: Planungsbuch für Evaluationen im Bildungsbereich, Bern: hep-Verlag.

2 In this guide, "degree program" always also refers to degree subjects at the University of Basel.

3 Actors and Participants

Planning and conducting the Formative Evaluation, as well as providing methodological expertise, are the responsibility of the evaluation officer for degree programs in Quality Development. This person usually also carries out most of the work involved (e.g. preparing and moderating meetings, preparing questionnaires, and drafting the evaluation report). The evaluation officer should not be confused with an external reviewer; their role is more that of a service provider.

To ensure that a Formative Evaluation produces genuinely useful results, the participation of the people involved in the degree program is essential. For the duration of the evaluation, they form an advisory group. Its composition can be flexible; depending on the purpose and focus, it may consist of 3–12 people.

The advisory group is responsible for identifying the priorities (→ Chapter 5) and evaluation questions (→ Chapter 6), interpreting the results (→ Chapter 8), and determining the need for action (→ Chapter 9). For these tasks, the group usually meets two to four times for a one- to two-hour meeting and supports the ongoing procedure by email distribution list as needed.

As a representative of the faculty, the Dean of Studies is always involved in the Formative Evaluation. The extent of this involvement depends on the purpose of the evaluation and is at the Dean of Studies' discretion. In any case, the Dean of Studies participates in the kick-off meeting and the final discussion.

Depending on the evaluation question, further stakeholders in the degree program and their professional, academic, and social environment must be involved. These may include, for example, graduates, employers, or peers. Whether they are part of the advisory group or rather respondents in a data collection (→ Chapter 7) also depends on the purpose and evaluation question.

Example 3:
To make a degree program more attractive and visible to first-year students, an advisory group is formed consisting of a professor, students, and the degree program coordinator. To obtain useful information about first-year students and proposals for measures, representatives of two local secondary schools are invited to an advisory group meeting.

Example 4:
To evaluate the strengths and weaknesses of a degree program, an advisory group is formed with representatives of all groups. Care is taken to ensure that at least two students and professors from all three divisions are represented. The chair of the Teaching Committee assumes the chair. The advisory group consists of 14 people; not everyone can always attend the meetings, but they can be represented by colleagues.

4 Quality Aspects of Degree Programs and Subjects

Most readers of this guide presumably know what a degree program is. However, when asked about the quality of a degree program, it quickly becomes clear that this depends on many different factors. In every evaluation, it is necessary to look more closely at the object being evaluated in order to clarify how the degree program functions, with what aim, and under what conditions. Figure 1 provides an initial overview of the various quality aspects of a degree program. The analysis grid does not claim to be exhaustive, but it is intended to provide a basis for identifying important and relevant factors and mechanisms of the degree program. This step takes place at the beginning of the evaluation in a workshop with the members of the advisory group. During the workshop, all members of the advisory group have the opportunity to formulate the aspects, mechanisms, and evaluation questions (→ Chapter 6) that they consider most important for the evaluation.

Example 5:
The lecturers in a degree program increasingly observe difficulties among students in their first year of study. The advisory group analyzes that this may be due to the Matura reform and to more first-year students from abroad. Possible areas for action identified are adapting the curriculum, providing information to first-year students, and designing courses. Students point out that, from their perspective, the workload must not increase too much. The advisory group agrees to survey students about the design of the first year, the information available to them before beginning their studies, and their workload, and then to decide on measures.

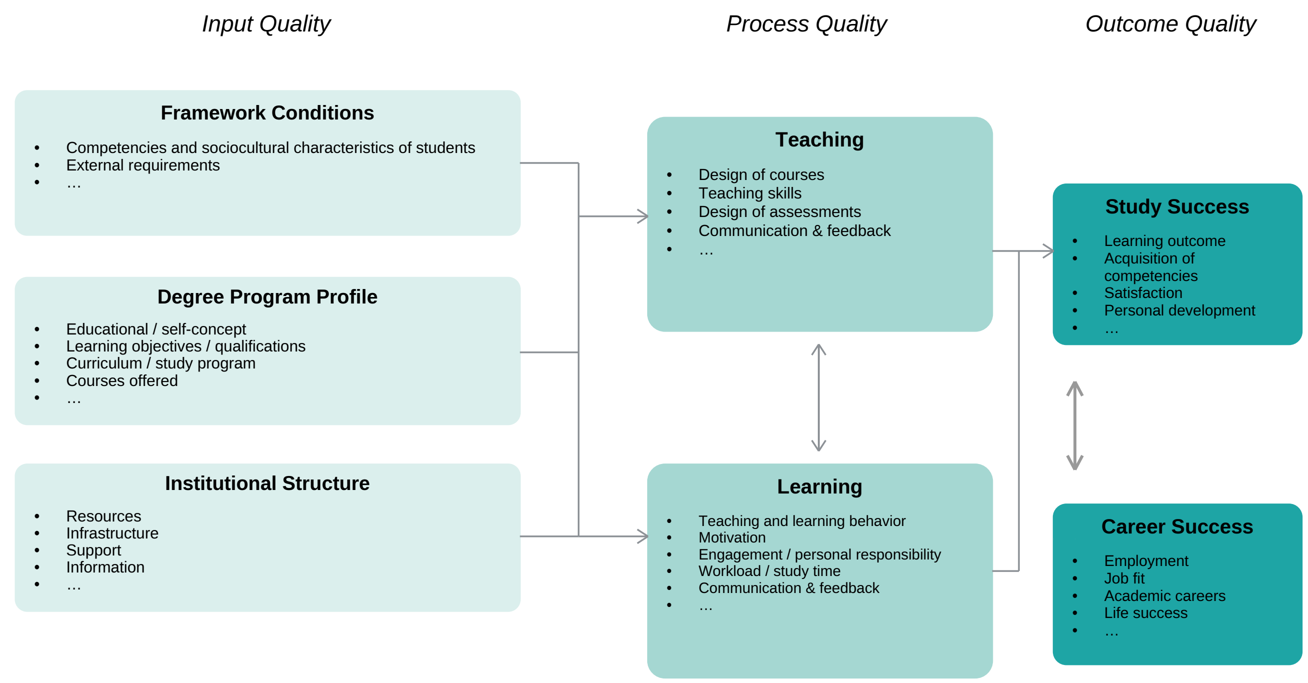


Fig. 1: Analysis grid of quality aspects of a degree program

5 Evaluation Questions and Criteria

Once the advisory group has determined which quality aspects the evaluation will focus on, the next step is to compile and select evaluation questions. Evaluation questions always refer to the quality aspect of the degree program being evaluated (they are not yet questionnaire items). They describe what data and information are needed in order to achieve the intended benefit of the evaluation. Prompts such as the following are helpful for developing evaluation questions: Where were there uncertainties when the degree program was designed? In which areas have critical situations occurred more frequently? Which critical aspects of the degree program do I have a ?theory? about, but need more information on? Often, keywords are also sufficient. In the workshop with the advisory group, these evaluation questions are collected together with the quality aspects mentioned above, discussed jointly, and prioritized.

Evaluative questions, i.e., questions that involve a value judgment, should, wherever possible, also include a criterion, i.e., an aspect or dimension against which the quality aspect is assessed (e.g., satisfaction, achievement of learning objectives, acquisition of competencies). Criteria ensure that the analysis and interpretation of the results (→ Chapter 8) can lead not only to new information but also to an assessment of the object. Descriptive questions are also possible; these ask about the characteristics of a situation, are intended to enable a detailed description of the object, and are not designed to evaluate it. With regard to analysis, it should also be noted that the questions should describe as concretely as possible what information is needed and why. It is easy to fall into the temptation of wanting to know everything that is in any way interesting. This quickly leads to an overambitious data-collection design and an unmanageable volume of results.

The German acronym f.ö.r.d.e.r.n. offers guidance for formulating evaluation questions:

- focused: It is clear which components of the object the question addresses.
- open-ended or gradated: The question does not ask whether a situation exists or not (which could be answered yes or no), but to what extent or in what form something can be established.
- realistic: The question refers to a situation that can be influenced by the object of the evaluation (within the given time).
- clear: The question is understandable; terms are defined where necessary.
- empirically answerable: It is possible to answer the question on the basis of data; the situations addressed can be operationalized.
- resource-appropriate: It is possible to answer the question with the available resources / within a reasonable period of time.
- useful: The question relates to the information interests of the addressees.

After the workshop, the evaluation officer usually formulates the evaluation questions and emails them to the members of the advisory group for clarification and finalization.

Example 6:
Six years ago, a new master’s degree program with a relatively well-defined occupational profile was introduced. One evaluation question is: “Do graduates of the degree program have the competencies required in their employment?” A criterion is clear here—the acquisition of competencies—and one gets an idea of how it can be operationalized: by surveying former students or employers.

Example 7:
The persons responsible for the degree program are unsure whether students are sufficiently familiar with the research priorities of the professorships. In the workshop it became clear that “familiarity” is not the appropriate criterion, and the advisory group agreed on two more concrete questions: “To what extent do students benefit from the lecturers’ research activities?” and “Which formats are particularly suitable for communicating research content?” The criteria to be assessed are therefore the benefit of research-related teaching for students and the suitability of a type of course for this purpose.

6 Data-Collection Design and Methods

Once the advisory group has agreed on a set of relevant and purposeful evaluation questions, a suitable data-collection design must be found. The data-collection design specifies which data are to be collected, how, from whom or from what, and when. Since the design must be configured so that the data obtained can be used to answer the evaluation questions, there is no single data-collection design for degree program evaluation. A wide range of academic methods can be used when making the selection. Chapter 4 already identified actors and stakeholders who may also be considered as groups to be surveyed. Of course, a design that includes surveys of various actors (multiperspectivity), the use of different methods (mixed methods), and different times of data collection (pre- and post-test) is advantageous. This leads to a more reliable and clearer interpretation of the results and also makes assessment easier. However, designs of this scope are always complex and often exceed the resources available for an evaluation. It must therefore be carefully weighed how much effort is required to answer an evaluation question and whether the use of the corresponding resources is possible or justified.

The final data-collection design is determined by the advisory group. The evaluation officer conducts the data collections and ensures the correct use of the methods. Depending on the specifics of the data collection, the evaluation officer relies on subject-specific support from members of the advisory group for individual steps (e.g. preparing the questionnaire). As a rule, the evaluation officer proposes the respective data collection and clarifies it with the advisory group.

Even with very careful preparation, it may well be necessary to modify the data-collection design during implementation, or for the advisory group to meet in order to evaluate interim results and adjust subsequent data collections.

Example 8:
To assess student satisfaction with advising in a bachelor's and master's degree program, the graduate survey conducted by the Federal Statistical Office is evaluated in addition to a survey of all students in the degree program. The survey provides information on the satisfaction of Basel students one year after completing their studies.

Example 9:
Six years ago, a new master's degree program with a relatively well-defined occupational profile was introduced. To answer the questions about the fields of work and competencies of employed graduates, an online survey of all graduates from the past three years and telephone interviews with employers are conducted. The data collections are supplemented by the expertise of two external peers from the same field.

7 Analysis

The recording, checking, and preparation of the data are usually carried out by the evaluation officer. The results of the data collections are then made available to the members of the advisory group in a transparent and clear format.

The advisory group then interprets and assesses the results. For the interpretation, it has proven effective for representatives of all participating groups to be present. The different perspectives often make it easier to make the results plausible and identify reasons.

The greatest challenge often lies in assessing the results. Since this is an improvement-oriented evaluation in which the degree program itself is not called into question and the results are not incorporated into rankings or benchmarks, but rather concrete needs for action are to be identified and options for improvement developed, the advisory group is responsible for providing a coherent assessment of the results: Where are the strengths and weaknesses of (an aspect of) the degree program? Are the persons responsible satisfied with the result? Which results indicate a need for action? It is helpful to consider these questions when developing the data-collection instruments and, where available, to use similar data collections for comparison. Assessing the results is a central aspect of the evaluation; only then can measures resulting from the evaluation be derived.

Example 10:
The key figures of a degree program show a high dropout rate. The results of a survey of students who discontinued their studies show that the large amount of material in the first year is the reason for the frequent discontinuations. In the advisory group's discussion, it becomes clear that reducing the requirements in this demanding degree program is not an option. Students and the degree program coordination point out that making the curriculum more flexible in the first year of study could also be an option.

8 Reporting and Benefits

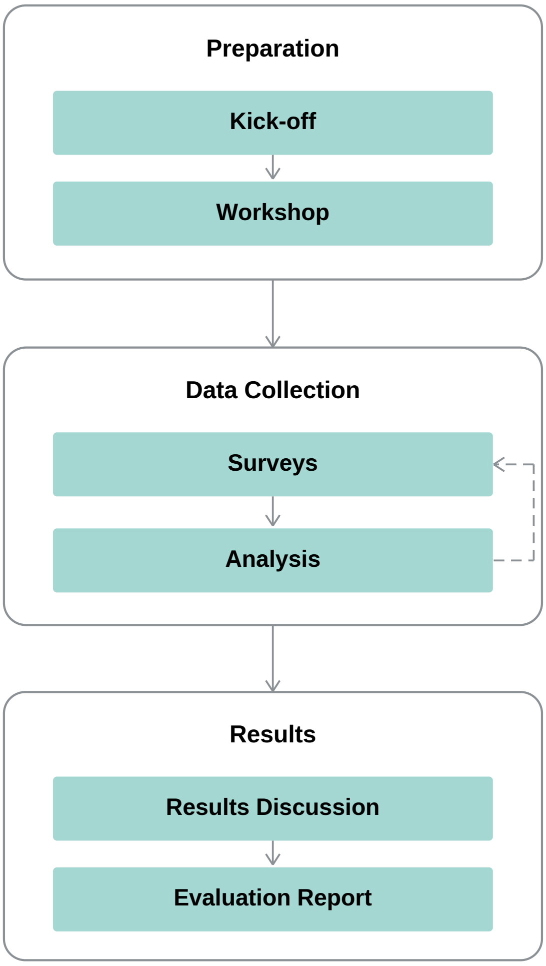
At the end of the evaluation, the evaluation officer drafts a preliminary evaluation report. This report provisionally summarizes the individual steps in the procedure, the results, and their interpretation and assessment in relation to the relevant aspects and questions of the Formative Evaluation. Where possible, the evaluation officer also proposes recommendations for improving individual aspects. Two weeks before the final meeting, the draft is sent to the members of the advisory group. At a final meeting of the advisory group, including the faculty's Dean of Studies, the individual chapters of the report are jointly reviewed and adjusted. The report should also formulate realistic and concrete options for action wherever possible, in order to keep the threshold between identifying an improvement and implementing it as low as possible. As an alternative to a prose report, a presentation with bullet points may also be used for reporting.

After the evaluation officer has incorporated the changes in line with the advisory group's views, the report is made available to the members (including the Dean of Studies). The evaluation report then becomes the property of the persons responsible for the degree program (teaching committee, curriculum committee, or similar body). It serves as a basis for future development of the degree program (→ Chapter 2). The persons responsible for the degree program decide whether the report or parts of it are published. They are responsible for implementing the options for action and recommendations contained in the report.

Example 11:
To align individual standards and teaching criteria in oral assessments within a degree program, lecturers propose co-teaching as a good-practice method. This is intended to prevent unfair grading and to impart assessment skills to younger lecturers. The initiative is presented to the Teaching Committee and is initially trialed with new lecturers.

Example 12:
Although the courses offered in a degree program include a module with career-oriented and practice-based content, it is not in high demand. At the same time, surveys of students and graduates revealed a desire for precisely this content. The advisory group suspects that the low enrollment is due to the fact that participation is not mandatory, and examines the integration of this module as part of the upcoming curriculum revision.

9 Process and Milestones of a Formative Degree Program Evaluation



- Clarification of the purpose of the evaluation
- Formation of an advisory group
- Development of evaluation questions

- Creation of a data-collection design
- Conducting the survey(s)
- Interpretation and evaluation of the results

- Identification of the need for action and options for action
- Preparation of the evaluation report

Fig. 2: Typical process of a Formative Degree Program Evaluation.