

# Informative Sources for the Evaluation of the University Education Effectiveness in Italy

Stefano Campostrini, Simone Gerzeli

*Dept. of Applied Statistics and Economics "Libero Lenti", University of Pavia, Italy*

**Summary.** The evaluation of the effectiveness of a study programme refers to its outcomes, and may be measured with the level of satisfaction of the programme objectives. In an educational programme, we can recognize three macro objectives referred to students:

- i) the formation of specific competences;
- ii) general competences and individual cultural development;
- iii) capability in finding a suitable job.

The measurement of these components is based on the construction and analysis of several indicators from surveys on teaching assessment, or on placement, or on teachers and employers, and, too, on linkage between databases.

**Keywords:** Education effectiveness; Evaluation; University; Informative sources.

## 1. The evaluation of effectiveness

The evaluation of the effectiveness of education involves several elements of complexity, from the definition of effectiveness itself to the multiplicity of programmes that pursue educational objectives. We will not linger over the delicate question of the definition of effectiveness, accepting, as an operational definition "*the degree to which the educational objectives are achieved*".

Hence, the evaluation of effectiveness implies a clear identification of the objectives and of the expected results, as well as of their measurement. The complexity of an educational programme makes the definition of the objectives even more important: only a clear, specific, precise declination of the objectives allows us to define the concept of effectiveness to which the programme refers. We could say that the definition of the objectives also contains the definition of effectiveness.

Thus, if an initial definition of the objectives leads to a precise determination of the possible results, a subsequent effort must be undertaken to define effectiveness, by indicating *what it possible to measure is*. Often at the initial stage just proxy measures are used, measures close enough to the concepts expressed by the objectives.

In defining objectives, particularly in the social context, we often use concepts (for example, the “quality of teaching”) which are not directly measurable. However, each of these can be made operational by identifying the components of the concept itself, which make it easier to identify possible measures, which nevertheless are proxy ones.

In the evaluation process, inadequate conclusions may be drawn if the outcomes are undefined. This is why it is risky to pay attention to only one outcome indicator and to evaluate the effectiveness with even small variations of this indicator.

The multi-dimensional nature of the social world implies a multiplicity of indicators. The basic idea behind evidenced-based approaches refers, on the one hand, to the impossibility of precisely measuring the complex situation the programme is on about and, on the other, the importance of choosing evidence indicators in order to make sufficiently well informed decisions.

A possible guideline for an operative definition of effectiveness may help also in identifying the information needed for its evaluation: how to make explicit the central feature of the definition of the objectives specific to the university programme and how it may be measured. The process is typically circular: from an initial definition of objectives, we determine which of these can be made operational and measured, and this often leads to the redefinition of the objectives themselves.

Thus, going back to the definition of effectiveness as the “degree to which the objectives are achieved” it may be added<sup>1</sup> “*provided the objectives are clearly defined*”.

The theory thus indicates that it is difficult to adhere to a single definition of effectiveness whatever this may be, that is valid for every project and every context; but this is due to the very same definition of the objectives that the educational programme intends to set forth.

An important corollary of this issue is that no evaluation of effectiveness is possible if the programme itself has not stated what concept of effectiveness it refers to. Hence, each evaluative project should explicitly mention which concept of effectiveness is referred to, if it is a partial or overall measure of it, and to what extent the “proxy” indicators are valid, reliable and sensitive.

---

<sup>1</sup> This should also solve the problem for defining effectiveness as the “satisfaction of needs”. It is the definition of the objectives that should account for how much and in what way the programme needs are to be satisfied; this should not be dealt with through the search for their (ex post) effective satisfaction outside of the objectives set forth by the project.