Evaluation of quality aspects in vocational training programmes

Introduction

This article is based on the results of a study commissioned by CEDEFOP carried out in five European countries (Belgium, Germany, France, Greece and Portugal) which analyzed evaluation studies of vocational training programmes. The central question was the importance, methods and practices of examining quality in vocational training programmes. The evaluation studies that were analyzed were primarily concerned with programmes for unemployed people and, to a lesser degree, for the further training of employed workers. Most of the programmes were (co)-financed by public funds.

Increasing significance of vocational training programme evaluations?

Initial results showed that in all the countries covered by the analysis there was a clear trend towards an increased number of evaluation studies on vocational training programmes. This was due not least to the impetus provided by European programmes. Increasingly, evaluation appears to be becoming an integral part of newly implemented programmes. Thus in Portugal for example the evaluation of state-funded further training measures has become an obligatory requirement. This is however carried out from a primarily administrative point of view, with the main emphasis on the examination of financial and material indicators and hardly any competent evaluation of the vocational qualifications acquired and their usefulness on the labour market.

In the context of our meta-analysis a number of studies - particularly from Portugal and Greece - were only partially open to more detailed methodological analysis, as the methods used were regarded as private know-how and hence were not published. Generally speaking it should also be noted that some studies, particularly those with critical or controversial results, were often deemed inappropriate or unsuitable for publication.

From a quantitative point of view the significance of evaluations of vocational training programmes has undoubtedly increased, although they do not always fulfill their intended function. The qualitative significance of such evaluations is characterized by their being an instrument for the appraisal of specific objectives, the demonstration of relations of cause and effect and hence for the optimisation of procedures, processes or products. In Europe there exists little in the way of a culture of transparent communication and open debate about the methods and results of the evaluation of vocational training programmes. The process of unrestricted examination and use of results of evaluations for the further development of programme practice can be said to function only to a limited extent. Critical discourse between scientists and evaluators on the one hand and the politicians and administrators responsible for the programmes on the other still needs to be developed further. There needs to be greater convergence between the debates on training policy and labour market policy, as well as greater effort on both sides in coordinating coherent research approaches which take both process-oriented and product-oriented indicators of quality into account.
Vocational training programme evaluations and their methods

If we follow Scriven’s (1994) definition, the evaluation of vocational training programmes can be regarded as a procedure intended to determine the merit, worth or value of these programmes. In theory this definition is uncontroversial (Cronbach, 1980; Guba, Lincoln, 1990; Patton, 1989). Yet according both to the dominant school of thought and from an empirical point of view there is a general consensus that the adherence to certain standards and the achievement of certain pre-established objectives, results and outcomes following the implementation of a programme, are to be used as criteria for an assessment of the merits, worth or values of that programme (Fernández-Ballesteros et al, 1998).

Methodologically speaking the analyzed evaluation studies displayed a high degree of variance, and are a long way from using comparable methods. This is due on the one hand to the subject under examination and the large number of variables influencing the course and results of vocational training programmes. On the other hand it is also due to the fact that we are only now starting to see the emergence of a generally accepted, uniform set of methodological tools for the evaluation of vocational training programmes.

At first glance we can differentiate between two distinct, even opposed types of vocational training programme evaluation. The first type, with its roots in the university tradition (...) sees itself as applied social science, coupled with high ambitions regarding adherence to scientific standards in proving relations of cause and effect. (...) The second type of evaluation has its roots in management and the enactment of programmes, with its main emphasis on the formative function accompanying the programme. Evaluation (...) is (...) directed less towards generally valid results than to direct practical improvements to the programme.

Moreover the question as to why certain evaluation methods are used in specific instances depends on the programme objectives, the evaluation objectives, cost considerations, the relevance of certain questions and thus ultimately on conditions specific to the individual countries. In order to systematically classify the wide variety of methodological approaches in the vocational training programme evaluation studies analyzed, we took recourse to Stufflebeam and Skinfield’s CIPP model (1988). Using this model we were able to differentiate between product-oriented, evaluations, process-oriented and context-oriented.

Product-oriented evaluations are designed to assess the difference between objectives and the results or products actually achieved by a programme. The difference between the intended objectives and the actual achievements is established by means of objective/achievement comparisons. In these evaluations a high degree of goal attainment is synonymous with a high measure of quality. Ideally, the objectives are operationalized from a quantitative point of view before the programme begins, thus making it possible to measure precisely the degree of objective attainment afterwards. Operationalized objectives of this type can consist of the number of trainees from specific target groups (e.g. the respective percentages of men and women) which the vocational training programme intends to reach, or can describe the skills and formal qualifications to be attained by trainees in the course of a programme, or they can anticipate the employment rates which trainees are to achieve on completion of the programme. Accordingly with regard to vocational training programme products it is possible to differentiate between output (number and type of persons reached by the programme), results (number and type of qualifications acquired by the trainees) and outcome (the programme’s direct employment effects).

Process-oriented evaluations are concerned with the enactment of the programme itself, with the procedures, modes, agreements, conflicts, negotia-
tions, arrangements and relationships occurring during the training and between the actors and agencies involved. Hence process-oriented evaluations deal with the organisation and procedures of the programme. They traditionally tend to be more formative in design, which makes it difficult to compare their methods and results. Yet with the increasing introduction of quality criteria such as the ISO standard, the methods of process evaluation will presumably also be placed on a more unified footing, at least to the extent that adherence to specific organisational and procedural standards acts as a guarantee of the quality of a training programme.

Context-evaluations relate to the framework conditions within which vocational training programmes take place. This refers as much to economic, legal and social aspects on the societal macro-level as to institutional and organisational aspects on the meso and micro-levels of the promoter organisation. More or less extensive analyses on the context of vocational training programmes are almost inevitably a necessary component of every evaluation, whether process or product-oriented. There are however also context-evaluations which are independent of product and process. An example could be a prospective analysis of the regional development of labour force requirements or the need for specific vocational qualifications in certain branches and sectors of the economy (agriculture, shipbuilding, textiles, etc.). An analyses to determine the qualification requirements and training needs of specific target groups such as disadvantaged youth or migrants also belong to this type of evaluation study.

Results of the analysis of vocational training programme evaluations

The analysis of vocational training programme evaluation studies in five European countries clearly illustrated that there is a lack of relevant research in relation to the overall vocational training programme cycle. Hardly any studies are available which consider the context, processes and products of vocational training programmes in relation to each other. Many studies focus on single elements of this cycle: some, for example, focus on training needs, whilst others are concerned with the organisation of vocational training measures, with a third group dealing with the integration of trainees into employment. Yet only a few of them covered the whole programme cycle with its different stages as a whole.

The context-evaluations examined within the framework of the present study demonstrate that only rarely is it possible to successfully consider “objective” training requirements, as established for specific sectors or regions together with the subjective training needs of the potential trainees. As a result of context evaluations at macro-level training requirements are often defined exclusively by (future) labour market demand. These economically-oriented evaluations often remain relatively theoretical, they fail to provide enough detail to allow conclusions to be drawn for the perspectives and design of vocational training programmes (Fierens et al, 1993). By contrast, context evaluations which take an interest in the social preconditions and the subjective training of specific target groups more often neglect the objective trends on the labour market. As a result the vocational training programmes are then analysed primarily from the point of view of their adequacy for specific target groups (Dulbea, 1994).

As far as process-oriented approaches are concerned, there are hardly any variables, whether influenced by the type of the promoter organisation, the composition of the participants, dependent on the process of the training courses, or the qualifications of the training personnel, which have not been examined in the vocational training programmes-evaluations (Aubégny, 1989; Figari, 1994). However, many of these important process-variables have not been analysed in a systematic way, which has a negative influence on the reliability and general validity of studies of this kind. In process-oriented evaluations there is a certain trend towards the inclusion of the participants’ own subjective perspectives in the evaluation of the process and this indeed can provide important pointers towards qualitative modifications of voca-
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Product-oriented evaluations are to be found primarily in the field of research into the effects of labour market policies. Traditionally their main question is whether the implemented policies fulfill their purpose. The Anglo-American and Scandinavian approaches in particular are distinguished by the fact that they work with elaborate methodological standards studies (cf Riddel, 1991; Björklund, 1991). Most evaluations of this type carry out a counter-factual assessment of the programme impacts: it is not deemed sufficient to know whether participation in a programme led to positive employment effects for the trainees; research is also carried out into whether such effects would also have occurred without the programme. With the aid of experimental or quasi-experimental designs the researchers test what the outcome would have been for the programme participants if the trainees had not participated in the programme, thus investigating the counter-factual, as compared to the observed, outcome. To this end the employment situation for a control or comparable group of non-participants is observed over the period under examination (Calmfors, 1994). The particular strength of these approaches to the evaluation of labour market policies is that they lead to not necessarily perfect but nevertheless relatively precise estimates of the actual effects and impacts of the examined programmes.

With regard to the CIPP-model the dynamic relationship between process and product has yet to be adequately researched. In product-orientated labour market policy evaluations it is not only the situative conditions of the training process which have remained ignored in their effects on the employment situation. The participants’ own subjective assessments are also often not taken into consideration in the evaluation of the job placement rates. This is in spite of the fact that they are becoming increasingly significant in training process research and quality management and have already proven their worth.

An exception to this rule are the evaluations of the in-house further education programmes of large companies which make systematic efforts, both in the design of the training programme and in the evaluation of the results, to consider not only the objective requirements of the company’s work processes, but also the

Evaluations of training programmes and labour market policy - a structural gap

As an overall finding of our analysis it must be stated that the fields of vocational training research and labour market policy research remain distinctly isolated from each other, something which has to do with the fact that both favour different evaluation approaches. The former is primarily oriented towards the evaluation of the training process and its internal quality criteria, whereas products such as the employment rate of the trainees are ignored if not intentionally rejected as indicators of quality. Training research is primarily interested in the process, yet attaches almost no significance to the product. By contrast, labour market policy research affords pride of place to integration into employment. In terms of labour market policy discourse, the documentation of the employment situation of participants following a vocational training programme is both a common practice and an uncontested criterion for evaluating the outcome of vocational training programmes. For labour market policy research the employment rate is the dominant indicator of quality (cf. for a summary, OECD, 1991). This indicator is so dominant that the learning achievements of the trainees are sometimes ignored in the context of labour market policy research, although they represent a further, clearly product-oriented quality indicator. Research into the (quality of the) training process is largely excluded from labour market policy ex-post evaluations. Labour market policy evaluation tends to say which type of training programmes worked and which did not, but not usually why (Fay, 1996).

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subjective interests and experiences of the employees in relation to each other. In addition, these studies are also remarkable in that they are highly interested in the question of the transfer and usefulness of the qualifications achieved for the work processes in the company and introduce a quality indicator into the evaluation of the training measures which is designed to examine the achievement of specific objectives beyond the training process itself (Götz 1993). Unfortunately the insights gained by transfer research receive far too little attention both in the field of training process research and in the labour market policy debate.

Process-orientated evaluations are focused on the internal quality dimension of vocational training, which can be analysed against different criteria (Dupouey, 1991). The current debate on questions of quality in vocational training has led to a real surge in evaluation methods and criteria for the training process (Van den Berghe, 1996). Increasingly, promoters are evaluating their own programmes on the basis of published checklists and criteria. It has also become common practice at the end of a training measure to ask the trainees for an assessment of the course, the trainer, the teaching materials, didactic methods and equipment by means of written questionnaires. Whilst assessments of this kind can provide the promoter with useful hints for the improvement of training provision, from the point of view of scientific comparison, they do not represent reliable criteria for the evaluation of programme quality. Although there are still only a few generally recognized quality indicators in existence, the recent debate on questions of quality and TQM approaches has led to a discernible trend in Europe towards the establishment of specific and adequate quality indicators for the education and training system (loc. cit.). Such criteria could consist of a set of pre-formulated standards concerning the training process (such as the ISO norms). They could include the demands of different target groups as well as the demands of business enterprises. They could also include indicators of the subjective satisfaction of the trainees, as well as indicators examining the trainees’ subsequent employment. As a result the quality indicators define the procedures to be followed and, following the logic of this evaluation approach, these quality elements also contribute towards attainment of objectives.

Whatever indicators are used, the linking of training quality with subsequent employment will be a central question. An evaluation of vocational training programmes which is not interested in the placement rates of the trainees will be simply unsatisfactory. Otherwise it would be possible to characterize the quality of a programme as excellent even if just one single trainee had afterwards found a job.

Information on the whereabouts of former programme-participants increasingly has to include qualitative employment criteria in relation to the personal variables of the participants. The advantage of the employment rate as an indicator of quality is that it is both measurable and general enough so that it can be used to measure very different training policies. However, the placement rate is sometimes attributed mechanically to the training programme, even though there might be no causal link at all between the completed training course and the subsequent job. It is the specific weakness of product-oriented labour market research, that its main indicator for quality, the placement rate, cannot help us discern which variables might have an influence on access to employment and to what extent this might be so.

A high job placement rate is not in itself an indicator of quality, any more than a low placement rate. The famous statement by Tanguy (1986) which considers the relationship between vocational training and employment to be “introuvable” has proven to be too superficial. The relationship between training and employment is not necessarily causal in the individual case. This is because it is not a question of a simple relation of cause and effect, but rather, as in every supply and demand relationship, of a very complex interrelationship of a large number of variables. This interrelationship has also empirically been shown to be distinctly “trouvable” in many studies (cf. for an overview: Reutersward, 1995).

Thus it is, for instance common practice in labour market-oriented evaluation research to compare the results of different

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training courses with the employment indicator to build up a hierarchy between more and less effective training measures. Tanas et al (1995) was, for example, able to show that a change in the subject and content of a training course led to changes in effects with regard to the rate of employment in the following cohorts of trainees. In addition the reviewed evaluation studies also undertook comparisons between the employment rates of various target groups in relation to the general trends in the labour market. In the context of such comparative analyses it was possible to demonstrate the disadvantage faced by women in integration into employment after leaving vocational training programmes, for example (cf. Seyfried, Bühler, 1995). To this extent placement rates can be used as indicators pointing to necessary adjustments to policies and the design of programmes, to the needs of certain target groups as well as to developments in the labour markets.

In spite of such useful conclusions which can be drawn from placement data, certain weaknesses remain with regard to the problem of causality. Placement rates in particular do not depend solely on the design and quality of the vocational training programmes, but are also influenced by a wide range of other variables located outside of the training and education sector (Blaschke et al, 1992). If, for example, the macro-economic situation is characterized by a demand for labour which is far too low, then our expectations of vocational training programmes placement rates will be limited from the very start. In this kind of situation successful integration into employment does not primarily depend on the quality of the training but is decisively influenced by general developments and the situation in individual economic sectors. These weaknesses concerning the causality problem mean that it is completely unsatisfactory to use the placement rate as the sole indicator for effectiveness or for concluding that different training measures were more, or less, successful.

Conclusions

Although the findings of the reviewed evaluation studies stress the importance of process-oriented evaluations, the existence of quality criteria in the training process cannot be seen as an expression of quality in itself. The greater the emphasis placed on the examination of the quality aspects of vocational training programmes, the less process-oriented and product-oriented evaluations should be seen as alternatives but as necessarily complementary approaches. A coherent approach to vocational training programmes evaluation must overcome the diagnosed gaps between “process” and “product”. For the future there needs to be greater convergence between the debates on training policy and labour market policy, as well as greater effort on both sides in coordinating coherent research approaches which take both process-oriented and product-oriented indicators of quality into account.
References


