INTRODUCTION

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Most observers agree that continuing education and job training* have gone up on the priority scale of decision-makers in international agencies and national governments, firms and labor unions, particularly since the mid-1980s. Economic objectives are at the centre of this growing interest, even though political and social factors are also implicated (cf. Benton & Noyelle, 1992). A consensus has now emerged about the importance of continuing education as a means of enhancing the qualifications and skills of the labor force. This consensus rests on an appreciation of, firstly, the role of continuing education in the skills formation process and, secondly, the role of the human factor in achieving objectives such as economic growth and national competitiveness on international trade markets, the structural adjustment of labor markets, the transformation of occupations and work patterns, and the development of leisure.

Data indicate that expenditure on continuing education has tended to increase in many highly industrialized countries during the 1980s, possibly as a consequence of a growing appreciation of the economic and social benefits of an investment in the adult learner (cf. Boot, 1990; Tuijnman, in press). As the investment increases, so do anxieties about the circumstances under which the returns will be optimal. However, our knowledge of the factors determining costs and returns is very limited (cf. Clement et al., 1991). These factors are at the forefront of a discussion at present about whether there is under- or overinvestment in general training, and how inefficient provision can be explained. The lack of understanding of returns — whether in the form of increased productivity or diminished long term unemployment, increased mobility or augmented individual earnings — is also at the core of a debate on how the responsibility for training provision ought to be divided among the main actors, i.e., public authorities and firms, labor unions and individuals. In many industrialized countries this debate is mainly

*As Jarl Bengtsson and Gregory Wurzburg note in the next chapter, continuing education is "nothing new". It goes under a variety of labels such as post-initial education, further education and training, recurrent education, lifelong education, etc. Even though there are some minor differences between these notions, they have in common that they focus on the education and training of adults. Unless otherwise noted, continuing education is used in this monograph as denoting all educational and training activities engaged in throughout their working lives by people considered adult by the norms of their society. The focus is on organized and post-initial educational activities with a vocational emphasis. The term continuing education is used in this monograph to refer to categories such as formal company training, informal on-the-job training, post-initial university or vocational school-based training and formal job-related adult education. Education and training activities both for the current job and for a different job are included.
concerned with the definition of the minimum level and the limits to which government responsibility for provision and intervention in the training market extend.

An understanding, firstly, of the diverse nature of the interests of the various actors and how they can be served, secondly, of the functioning of continuing education markets in relation to public policy and not least the goals sought by employers and, thirdly, the economic returns in relation to the costs, is crucial for the development of effective continuing education. The clarification of returns is called for because an agreement about the role of the actors in the financing and organization of continuing education depends on our knowledge of who benefits, and at what cost.

Conceptual and Methodological Issues

Research on the effects of initial education on outcome variables such as cognitive competencies and adult skills, job status and personal income, health and life satisfaction or, at a different analytical level, economic growth or the efficiency of labor utilization, is beset by great difficulties (cf. Härnvist, 1989). However, it seems likely that this may be even more true of research studies into the substantive outcomes of post-initial education. While more precise estimation of the benefits of continuing education for a society and its people is a critical issue, it is also a highly complex endeavor. There are both conceptual and methodological reasons for this.

Continuing education is an elusive idea rather than a well defined concept. It thus evades adequate operationalization and direct measurement. A related difficulty is that most voluntary programs of continuing education cater for widely heterogeneous audiences and, hence, are generally characterized by a multitude of goals, organizational structures, curricula, pedagogical practices and, not least important, different qualifications and certifications — in so far as these are relevant to the training activity.

The collection of the data needed in order to measure a continuing education activity and its possible impacts constitutes another large looming problem. A further complication is posed by the factors influencing people to participate in continuing education. For example, the use in effectiveness research of the enrolment status of program participants as the sampling criterion casts doubt on the validity of the collected data and, hence, on the usefulness of the research findings. Of the few studies carried out previously in this field, most are likely to have suffered from variable sampling error and specification error resulting from selection bias (Heckman, 1979) since only participants are commonly investigated. The use of nonexperimental methods in effectiveness research has also been questioned, mainly because they make replication difficult (cf. Ashenfelter, 1989).

The criticism that effectiveness research may be misleading is serious because the effects cannot be appropriately identified if a short time perspective is used which, due to data limitations, is often the case. Yet another point of some concern is that, in recent years, research workers have paid increased attention to the issue of distinctive cohort experience in the context of social, economic and demographic change, and have attempted to separate out age, cohort and period effects in studies on the development and utilization of human resources (Bowman, 1987). The findings of this expanding body of research are inconclusive. Yet the importance of experience unique to a particular cohort is increasingly being recognized. The heterogeneity of the populations studied
and the variety of statistical methods employed in this field of research are additional factors making it tricky to generalize across research studies.

That our knowledge of the potentially beneficial outcomes of continuing education is limited does not come as a surprise, given that only a few of the problems faced in effectiveness research on continuing education are mentioned above. It is an understatement that the important hypothesis about the economic worth of massive investment in continuing education has so far not been validated in a multinational, comparative context.

Even though the studies in this volume report on research carried out in Colombia, Norway and Sweden, the Netherlands and the United States, a claim that these would present an international context for validation is not being made. On the other hand, the studies presented here bypass some of the other limitations mentioned. Most studies employ an operational definition of continuing education that facilitates the inclusion of both main categories of activity, formal adult education and job training. Antecedent and context variables are specified in most models. Selection bias is not a problem because the populations surveyed are representative of both the participants and nonparticipants. An attempt is made to facilitate replication. This applies particularly to the studies in Chapters 6 and 7. Finally, some studies use a long time span for identifying the effects of continuing education.

Purpose

The purpose of this monograph is to present a state of the art review of research studies into the economic and labor market effects of continuing education. "State of the art" in the — limited — context of this volume means that:

1. The cardinal policy issues characterizing continuing education at present are introduced and some of the main questions for effectiveness research in this field formulated.
2. Comprehensive reviews are given of important previous investigations on the antecedents and outcomes of continuing education.
3. Examples of innovative research studies are presented.

The emphasis is not only on the substantive results of research. The methods used in obtaining the findings are equally important at the present stage in the development of this branch of effectiveness research. Economists, sociologists and educationalists are involved in the development of this field. They tend to ask different questions, use different methods and have divergent views on which results are considered important. A multidisciplinary approach is adopted in this monograph, so that advantage can be taken of the rich conceptual and methodological diversity characterizing effectiveness research.

Elaboration

Jarl Bengtsson and Gregory Wurzburg explain in Chapter 1 why there is a new interest in continuing education in the industrialized countries, and how it differs from a variety of
ideas proposed since the late 1960s. The main point is that continuing education matters more because the stakes are higher — especially the economic stakes. Four issues in the improvement of continuing education are identified and three main questions for future research framed: What are the determinants of the supply of and the demand for continuing education? How can internal and external labor markets be better linked? Which factors influence adult learning in the skill formation process? Research on these kinds of issue could form the focus of another monograph. The critical but basic question as to the usefulness of current effectiveness research in continuing education is also raised. This question is considered in the conclusion below.

As pointed out above, the antecedent factors influencing the decision to invest and participate in continuing education must be taken into account in effectiveness research. In Chapter 2, Willem Houtkoop and Max van der Kamp give an overview of previous investigations on the determinants of participation in and provision for continuing education. The hypotheses used to guide the analyses of data in previous research are also examined.

A review of studies with a focus on the economic and labor market effects of continuing education programs is offered by Christopher Dougherty in Chapter 3. A distinction is made firstly, between micro- and macroscopic evaluation and, secondly, between continuing education financed through the national public budget, employers and employees. The focus is on research studies investigating the economic returns to training. The author concludes that the quality of general education exerts a key influence on continuing education and determines a part of its effectiveness.

In Chapter 4, Arne L. Kalleberg employs a new Norwegian data set to examine the major antecedents of continuing education and the effects on individuals' earnings. Of interest from a methodological viewpoint is that organizational and individual-level variables are specified in one model. This indicates the advantage of the design used in Norway for the collection of training statistics, which makes it possible to link individual-level data to information collected through a separate employer-based survey.

George Psacharopoulos and Eduardo Velez examine the economic payoff to continuing education in Colombia in Chapter 5, using data from a sample of 4,000 workers in Bogota. Their results indicate that there is an interaction effect between initial and post-initial education, on the one hand, and earnings on the other, since the economic payoff to training is higher the higher the level of initial education. This finding underlines the value of Dougherty's conclusion, that policymakers ought to be more concerned with the quality of general education and less with the acquisition of specific vocational qualifications.

A longitudinal data set is examined by Albert Tuijnman in Chapter 6. The results document the importance of continuing education for the life careers of a group of Swedish men. That a long time perspective may be needed in research into the individual outcomes of continuing education has been frequently noted. The principal merit of the study reported in Chapter 6 is that it employs a data set in which men are followed up from 10 to 56 years of age. The author concludes that continuing education does not influence personal earnings variation directly but indirectly. While the effect of initial education as a determinant of earnings increases up to age 40 and then decreases, the influence of continuing education increases from 30 to 56 years of age.

In Chapter 7, Sylvia van Leeuwen and Jaap Dronkers address a number of policy-relevant questions involving both economic and social functions of continuing education. An interesting finding is that men who received a poor education initially tend to attain a
higher increase in their educational level than well-educated men. Among the innovative aspects of the study are, firstly, its longitudinal design, secondly, the measurement of continuing education and, thirdly, the models employed to test empirically the formulated hypotheses. The study confirms Tuijnman's finding that continuing education exerts a positive indirect effect on income mediated via job level, whereas the direct effect tends to be negative.

Effectiveness Research: Disenchantment?

The critical question is raised in Chapter 1 whether the research undertaken so far in this branch of effectiveness research is useful to decision-making, for example, decisions about where to invest, how to provide incentives and where to educate and train workers. The doubts expressed by Jarl Bengisson and Gregory Wurzburg are not incidental. They reflect the concerns of administrators and employers, some of whom have asserted that the results so far obtained have had little relevance, if any, to policy and practice.

That it is disturbing that the effects observed in a given educational setting and for a given population of participants are, as a rule, not generalizable to other settings and other populations is acknowledged. But “relevance” is nevertheless a concept open to varying interpretation. Effectiveness research may have something informative to say about the policy questions decision-makers are faced with, but cannot provide any definite answers — these are and will remain the prerogative of the politician. Criticisms with respect to “usefulness” are, moreover, not unique to this area of specialization. Feelings of frustration and disenchantment with what social science research has achieved are general phenomena, predating our concerns at present, as Gage (1991) makes clear in *The Obviousness of Social and Educational Research*. Shavelson (1988) sums up the position as follows:

Two faulty assumptions underlie most perceptions of the relation between educational research and policy and practice. . . . The first holds that education research should directly and immediately apply to a particular issue . . . . The second faulty assumption holds that . . . education research can lead to practices that will make society happy, wise, and well educated (op. cit., p. 5).

If the role of social and educational research is to challenge conventional conceptions and illuminate policy options, then one may appropriately reflect on the ways in which this volume makes a contribution. The following are a selection of cardinal findings cutting across at least two but often more of the research papers:

(1) Both initial and continuing education are important predictors of people’s life chances, assessed in terms of job status and individual earnings. However, these effects derive, at least in part, from differences in the social and economic capital of the home and differences in cognitive ability. Disparities between social groups have a tendency to continue up the educational ladder, from primary to secondary to post-school levels of education. Education gained in youth influences occupation and the opportunity of receiving additional educational experience later in life.

(2) Both a high level of initial education and participation in continuing education are associated with above-average employment conditions, above-average earnings, and a less than average unemployment incidence.
(3) The relationship between continuing education and earnings is significant and positive — if measures of the occupational career are not in the equation.

(4) The relationship between continuing education and earnings is either negative or not significant if job level is held constant. A negative direction may indicate that the individual contributes to the costs of training, probably in terms of earnings foregone or opportunity costs.

(5) The indirect effect of continuing education on earnings mediated by job level is significant and positive. The economic payoff to the individual thus depends on whether the activity confers instrumental qualifications leading to a job with higher pay.

(6) An interaction effect complicates the relationship between continuing education and earnings, as the economic return to the former depends in part on the level of formal education initially attained.

(7) Initial education, continuing adult education, cognitive ability and work experience do not account for all of the variation in earnings differentials between men and women.

(8) Because continuing education rests on a basis acquired by means of initial education, it seems that shortcomings in basic education can only be compensated later in life to a limited extent by means of continuing education.

(9) Continuing education is a factor of importance in the cumulation of advantages and disadvantages over the life span. Moreover, it tends to reinforce the role of initial education as a principal determinant of people's life chances, career and social status.

(10) The results arrived at in this volume indicate that the mandate of the school in imparting knowledge and skills for a vocation and citizenship tends to diminish relative to the increasing influence of continuing adult education.

**Some Policy Implications**

Continuing education implies that both schooling and training tend to be extended to cover an increasing part of the life span of the individual. This has a number of implications, not least for school education. Firstly, the school cannot any longer hope to provide young people with the knowledge and skills needed for the rest of their lives. As knowledge in highly industrialized countries tends to become rapidly obsolete, the goals of schooling are increasingly defined in relation to preparing not only for working life but also for educational and cultural life. Secondly, as schools are sharing their educative responsibility with other agents and institutions, the socialization function of schools changes as well. The implication is that ways must be sought to encourage greater participation and meaningfulness in education, for example, by conferring adult responsibilities on young people in the larger social context.

That school education is a major determinant of the social and economic positions people occupy in a society are well documented findings. That initial education exerts a clearly decisive influence on occupational and educational careers in a lifelong perspective however, is less obvious. This draws into attention the issue of equity. The increased provision of continuing education does not lessen but tends to reinforce the important
role of initial education as a determinant of life career. Hence it is imperative to pursue a strategy of providing equality of educational opportunity in school education. More people would be prepared for lifelong education and self-directed learning if a policy to reduce wastage in secondary school and promote a higher level of initial education for all is successful. Continuing education also implies that special attention ought to be given to children "at risk", who run the risk of missing out on their initial schooling.

There are good reasons to assume that, to a certain extent, what is beneficial for the career development of the individual is also good for the development of the nation (cf. Bishop, 1991; Husén and Tuijnman, 1991). If the findings of research studies are generally valid, then they must be held to have far-reaching consequences for the organization of educational systems. The cardinal implication is that schools should not seek to provide a narrow vocational preparation. Both children and society may be better served if the content of initial education is broad and general rather than narrowly focused on the specific vocational skills in high demand on the labor market at a given moment, and that specialization in secondary education ought to take place as late as possible. That the emphasis of second-level schooling ought to be on general cognitive skills and "learning to learn" would seem obvious; yet, as a consequence of "economism" in education, there is a new drive for "vocationalism" in the United Kingdom and the United States (e.g., see Wirt, 1991). The responsibility for deploying and managing resources for the acquisition of specific vocational skills may rest with those who can do it better and at a lower cost, namely, the employment sector.

References


