Vocational Training in the Crafts Sector –
an Outline of the Problems on the Example of Saxony

Comment on Wolfgang Dürig and Markus Scheuer

By Hans Heijke, Maastricht

In my reaction to the paper by Wolfgang Dürig and Markus Scheuer, I shall refrain from discussing the many interesting details that it contains. Instead, I shall try to place the topic of this paper in a wider framework, which offers the possibility of highlighting several fundamental issues that I can relate to the paper.

International comparative studies have shown that having a well developed Intermediate Vocational Training System constitutes a strategic factor for economic development (cf. Ryan, 1991). A clear example is Great Britain, whose weak Intermediate Vocational Education system has resulted in very small proportions of skilled workers with an intermediate-level education in many production and service companies, compared with similar companies in Germany and France. Several case studies have shown that this has a very negative influence on productivity in these companies (e.g. Steedham and Wagner, 1987; Mason, van Ark and Wagner, 1994). There were more frequent delays in the production process as a result of inadequate procedures and/or insufficient preventive maintenance. In addition, this underrepresentation of workers with an intermediate education often appeared to result in lower quality goods or services.

In general, it can be said that a particular education influences productivity in four ways: through the worker effect, the allocative effect, the research effect, and the diffusion effect (see Cörvers, 1999). The worker effect concerns the fact that higher educated workers are more efficient in their use of the available means in the occupation concerned. The allocative effect refers to the greater efficiency of higher educated workers in the allocation of the available means of a company to alternative application options in the production process. The research effect relates to the role of the higher educated in R&D activities. Lastly, the diffusion effect indicates that higher educated workers have a greater
ability to adapt to technological changes and are capable of introducing new production methods in the company more quickly. It would be interesting to use this general diagram of possible effects of higher education to determine the position of intermediate vocational education. I will try to do so, taking my inspiration from the results of the above-mentioned productivity studies, including the recent sector studies by Cörvers (1999). It is likely that the intermediate trained workers will exhibit a clear worker effect and, to a possibly slightly lesser degree, the allocative effect and the diffusion effect. The R&D effect seems to be reserved exclusively for the higher educated.

The presence of such a well developed Intermediate Vocational Training system in Germany gives this country a powerful economic potential. Contrary to the Netherlands, for example, which also has a well developed Intermediate Vocational Education system, the German system is largely set up as a dual system. In such a system, the learning process is a combination of going to school and working. One may ask whether this is the most efficient way of learning for the groups of students involved. The results of research by van Els and Heijke (2000) suggest that this is in fact the case. On the basis of estimated wage functions, taking into account both the initial education level and the job level, they found high rates of return to job-related training for workers with only a basic training in low and intermediate level jobs (see table). The combination of working and going to school therefore seems very effective for the groups concerned.

<table>
<thead>
<tr>
<th>Educ. Level</th>
<th>Occupational Level</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Primary</td>
<td>0.076</td>
</tr>
<tr>
<td>LGSE &amp; PVE</td>
<td>0.059</td>
</tr>
<tr>
<td>HGSE &amp; IVE</td>
<td>0.045</td>
</tr>
<tr>
<td>HVE</td>
<td></td>
</tr>
</tbody>
</table>

Source: Van Els & Heijke (2000)

Primary = Primary education
LGSE & PVE = Lower General Secondary Education & Primary Vocational Education
HGSE & IVE = Higher General Secondary Education & Intermediate Vocational Education
HVE = Higher Vocational Education

Does this mean that the dual system has no disadvantages? Learning on the job is by definition context-specific, the context being that of the
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occupation or profession. As mentioned above, the great strength of dual education is that it offers a clear context in which what has been learnt can be applied in an effective learning environment for a large part of the population. A negative effect seems to me the fact that the knowledge and skills acquired can only be applied effectively within the same or similar contexts as the one in which they were learnt. Immediately after leaving school, many graduates find jobs outside the domain of the education taken. In the Netherlands, this is the case for no less than 40% of all graduates of Intermediate Vocational Education. During their later occupational careers, workers have to cope with technological and organisational innovations in their jobs and in their environment. New occupations emerge and others disappear. This means that many workers have to deal with the obsolescence of their knowledge and skills during their professional careers, creating the need to adapt to new working conditions in their original jobs or in new ones. In these cases, it is important that they possess the basic knowledge and skills on which they may build the newly required competencies, as well as the skills, including learning skills, which promote the efficiency of this innovation process.

In my opinion, the authors of this paper pay too little attention to these issues. It is true that they mention the strategic role of key competencies, but they suggest that these are skills that can be used in different occupational contexts. They do not mention, however, the importance of skills that promote the efficiency of the process of adaptation to new working conditions, such as learning skills. Nor do they touch upon the issue that introducing key skills in the curriculum in fact constitutes a generalisation, which makes the investment in such apprenticeship places less interesting for companies (see Blechinger and Pfeiffer, 2000). This will restrict the availability of such places.

The last point that I would like to mention is the following. The authors expect a serious shortage of applicants for apprenticeship places before the end of the present decade in companies that belong to the crafts sector. They advise such companies to increase their training efforts and to 'train for stock'. However, I think that this is not a very efficient way to counter future shortages. A drawback would be that too much of this investment would turn out to be obsolete by the time these shortages are expected. Another disadvantage is that demographic developments - less growth, or even a decrease, and ageing - demand that the employability of the existing work force is improved and extended in time. I would therefore propose to make the Intermediate Vocational Training system more accessible for such groups. This would also make

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the education system less vulnerable to investments in knowledge and skills that become obsolete quickly or yield low returns by job changes of skilled workers to jobs outside the domain for which they were specifically trained.

References


Abstract

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By Hans Heijkke

A well developed Intermediate Vocational Training system is a strategic factor for economic development. The dual form of this system seems an effective learning path for the groups of students involved. A disadvantage seems to be the highly specific nature of the knowledge and skills acquired, which makes it more difficult to adapt to technological innovation and to work outside the domain of the education programme.

JEL classification: J24

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