

Smart heads and golden hands. An empirical study on educational processes of gifted juveniles in the Swiss vocational education system

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The aim of this longitudinal study is the observation of the performances of gifted trainees during their vocational education. Questions on the factors influencing their excellency as well as on the features composing their profiles are focused. The study tries to explore the factors with the most fundamental effects on excellent achievements and observes therefore the characteristics of juveniles which show excellent achievements. Contradictory to general ability research, gifted apprentices come to a lesser extent from upper- or middle-class but to a remarkable part from working-class and employees' families. They prove to distinguish themselves by positive attitudes towards work and a high willingness to perform. Meanwhile they show a considerable stress-related psychological strain in their firms.

At the beginning of the vocational training (first and second year) the gifted trainees showed considerable better working achievements than the averagely intelligent. In the third year of vocational training a significant change took place. The achievements of the averagely intelligent trainees have grown and slightly over-taken the achievements of the gifted. However, in the fourth year, the gifted trainees caught up again.

The results give claim for the convergence hypothesis which posits that in the beginning of the vocational training, gifted juveniles show better performances than averagely intelligent ones, whereas this differences disappear towards the end of the training. Cognitive abilities turn out to be a relatively weak predictor for excellency with a trend even to the opposite direction. In fact, not those trainees who are having the highest intellectual abilities perform best, but those who are especially motivated and profit of advantageous environment factors (e.g. good working atmosphere) that support out-standing performances.

Our study shows that one important challenge in the field of vocational training is to identify gifted trainees and to support them in a way that allows them to tap their full potential.