

SKILLS, EMPLOYABILITY AND UNIVERSITY GRADUATES?

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Introduction

Let me start with a brief story: "In the early morning a school inspector drives his car to a village in order to visit a village school. Half the way and amid open fields the motor of his car fails. For having no technical skills the school inspector looks for help. After some while a ten year old boy comes along the road from the direction the inspector has to go. After the boy knows about the problem of the car he opens the bonnet and works a little bit at the carburetor. Minutes later the motor starts again and runs smoothly. The school inspector admires the performance of the young boy but asked him: "Why are you talented boy not at school?" The boy answers: "You must know: Today our school inspector will come to our school. Therefore my teacher has sent all less good students home in order to make a good impression!" (Free Translation; Theodor Wilhelm, Georg Kerschensteiner (1854-1932), in: *Klassiker der Pädagogik II*, München 1991, 103-126, 103.)

The story may give one already an answer to the topic of the Panel: What is and can be the role of technical and vocational education! But the story point out another issue: Up till now our education system is a 2-class-system where intelligent students choose the "king way" via universities direct into leading positions of the public and the private sector while less intelligent students has to go a vocational and technical education to find their jobs as workers. This tradition has justified a 2-class-society of "academics" and "workers" which was well fitting to an employment system of the period of industrialization. The approach of the universities based mainly on the education concept of Humboldt while the skill related on the Vocational Training Concept of Georg Kerschensteiner emphasizing solid social values.

Based on Georg Kerschensteiner's concept a "VET-system" the first "Worker School" and some years later the well known "Dual VET" system in Germany was established not more than 10 years before the 2. World War began. Beginning 1980 an increasing technological development demanded higher skills and in particular a more technical experienced workforce. The new challenge came along with the computer era and had a deep impact for the service and production sector. For the business sector was not well prepared for new computer technology "Technical and Vocational Education" got a high priority to master the new technology challenges: Existing VET training programmes had to be updated to Technical and Vocational Education Training programmes (TVET) at short notice. Even new professions like "programmer" had to be developed and implemented. Till 1980 it was still believed in Germany that technology jumps will happen all 20 years, after 1980 it was supposed all 10 years and up till now it is almost clear that the speed of technology jumps will increase all 5 years or rather less.

Intensified by a globalization of the world, by global challenges like environmental, technological, social and scientific issues, even economic and financial unbalances struck the public and private sector and demand an increasing range of knowledge, skills, experiences and social values of the workforce in order to master them. Since that time the role of the TVET-system in Germany changed from a "supplier" to a "developer" agent for qualifications and key competences for the future! The demand of the employment sector for increasing qualifications, skills and competences blasted away the traditional borders of TVET! To react on professional competences TVET training programmes have got already more and more ambitious. It was no longer a vocational training for workers but a technical Training for professional experts which requires highly qualified appliers. Vice versa universities in particular engineer's, natural and social sciences felt the pressure to include global topics and to provide more practical experiences and technology skills. The distinction between Higher Education and higher TVET seems partly to blurs.

All that has consequences for the traditional 2 education system! Humboldt's education concept and Georg Kerschensteiner's "worker school" seem to fail to response adequately to the new challenges!

Thesis

1. Employability of school leavers and graduates shall be a key objective of each education institution.
2. It is interesting: A survey in Germany came to the result that for employers the most important key competences are social values.
3. The education system as a whole shall lay down a basis for lifelong learning.
4. TVET shall be understood as an important interface between the education and employment sector to guarantee the employability of the students no matter from university, college or general education schools.
5. Therefore: Education institution and potential employers shall recognize their common responsibility for the development of efficient teaching programmes and practical instructions.
6. Key competences and practical experiences are backbone and key success factors for employability.
7. The education system as a whole shall be as flexible as possible and as diversified as necessary. Supplemental to classic universities proven concepts of other countries can be adapted. For example
 - A dual TVET system like it is being introduced in Kazakhstan.
 - Merging of Higher Technical Education programmes and Higher TVET like "Dual Study Courses" which lead to TVET profession and a Master's decree.
 - Technical universities with applied research institutions which support innovations, technology development and even Start Ups.

Back to the question of the Panel: What is the role of TVET? As the interface of the education and employment sector TVET shall contribute knowledge, skills and social values efficiently supporting ecological, economical and social development of the future!