Informatics Education at Vocational Schools and Colleges in Austria

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Abstract. The contribution offers a survey about vocational schools in Austria (both intermediate and higher education) and the development and position of the informatics education. The main area of the account lies within the “technical and vocational schools and colleges”, but also the other forms of vocational schools (“schools of occupations in the business sector”, “schools of management and service industries”, “schools of social occupations”) will be explained. In addition a selection of various special school models will be dealt with. Furthermore the development of the informatics curricula, the present state and the current trends will be described.

1 Tasks of Vocational Schools

Amounting to 195,476 pupils, the technical and vocational schools and colleges outstrip those from the grammar schools (189,753 pupils). Considering that the vocational schools comprise only the forms 9 to 13, the grammar schools on the other hand 5 to 12, it is not surprising that more graduates leave the vocational schools (about 17,000 graduates) than the grammar schools (about 16,000 graduates). Nevertheless the vocational schools rank lower in the public perception.

Figures of graduates from vocational colleges may go to University or take up a job immediately – a model of education which is unique in Europe.

2 Systematics

2.1 Arrangement According to the Level of Education

The Austrian School system provides for three levels of vocational education.

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1 See also http://www.berufsbildendeschulen.at/.
2 Statistik Austria, http://www.statistik.at/fachbereich_03/bildung_tab10.shtml. All figures concern the school year 2002/03.
Part-time Vocational Schools for Apprentices (Berufsschulen)
Part-time vocational schools for apprentices\(^3\) are part of the dualistic education of apprentices. As a rule apprentices are trained in school once a week, the rest of the time they work in a company.

Vocational Education and Training (VET) Schools (Mittlere Schulen, Fachschulen)
Vocational education and training schools\(^4\) (Fachschulen) last from three to four years (in a few cases even shorter) and end with a final exam. School-leavers are employed as skilled workers and they might, by attending a Secondary College (Aufbaulehrgang – Kolleg), reach the level of a VET College.

Vocational Education and Training (VET) College (Höhere Schulen)
Vocational education and training colleges\(^5\) provide curricula lasting five years. They end with a “Higher School Certificate and VET Diploma”. The expression “Higher School Certificate” refers to the permission to go to University after the exam, the expression “VET Diploma“ refers to the professional qualification and chances to take up a job.

2.2 Arrangement According to Contents
Both, VET schools\(^6\) and colleges\(^7\), offer subject matters containing technical, commercial, and social fields.

Schools and Colleges of Engineering, Arts and Crafts
The schools and colleges of engineering, arts and crafts\(^8\) are probably the best known technical and vocational schools. On more than 80 locations all over Austria the classical branches of the engineering disciplines like civil engineering, mechanical engineering, electrical engineering or electronics are taught. But also the disciplines economics and business engineering, electronic data processing and organisation or information technology are offered. There are also schools specialising for instance in chemistry, food technology, or business management\(^9\). VET schools are often added to the VET colleges.

\(^3\) All legal quotations - if not indicated otherwise - come from the School Organisation Act (Schulorganisationsgesetz), see also http://www.ris.bka.gv.at. This is not a word-by-word translation. § 46 Assignment of the Berufsschule: It is supposed to convey (parallel to the job) the fundamental theoretical knowledge, to support the education in a company and to enlarge general education.

\(^4\) § 52 Assignment of VET Schools: They are supposed to convey essential specialized knowledge and skills needed in jobs of industrial, technical, artistic, commercial or social branches.

\(^5\) § 65 Assignment of VET Colleges: They are supposed to convey a higher general and specific education which enables school-leavers to take up a higher job of technical, industrial, artistic, commercial branches. It qualifies them to go to University.

\(^6\) Details to be found in: § 54 School Organisation Act.

\(^7\) Details to be found in: § 67 School Organisation Act.

\(^8\) § 72. Schools and Colleges of Engineering, Arts and Crafts. They serve to gain higher technical or commercial education in diverse fields of economy. Lessons in a workshop and practical education convey practical skills.

\(^9\) The curricula can be found at: http://www.bmbwk.gv.at/schulen/bw/bbs/bbmhs/Berufsbildende_Schulen_H1745.xml