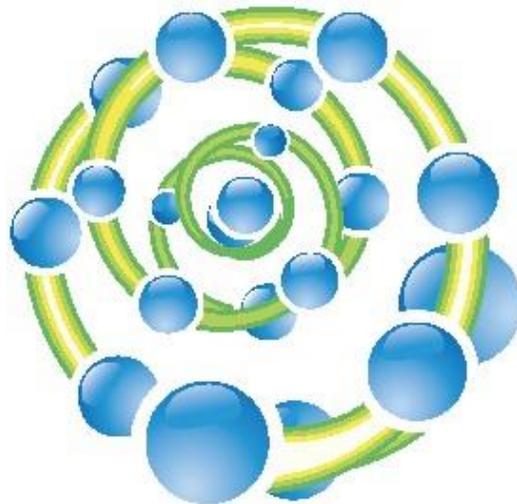


Apprenticeship-type schemes and structured work-based learning programmes

Sweden



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Foreword

Apprenticeship-type schemes and other structured work-based learning programmes are provided within the formal education system as well as within non-formal education. In some areas, such as for example the building and construction sector, a post-secondary work placement or apprenticeship in a company is required before the person can take a trade and journeyman's examination or receive a trade certificate ⁽¹⁾. During the past year the partners in several labour market agreement areas have signed what are known as work introduction agreements. Most of these agreements build on the principle that young people lacking professional experience are offered coaching and training during part of their working time ⁽²⁾. In many cases having completed a specific vocational programme is a prerequisite to obtain a work introduction position but there are also agreements geared at unemployed young that have not completed upper secondary school.

Different forms of apprenticeship-type schemes have been tested and piloted within upper secondary school. Following the reform of upper secondary school, put in place in 2011, apprenticeship education was introduced as one of two pathways in all upper secondary VET programmes offering an alternative route within mainstream VET. The same pathways were introduced in the reform of the upper secondary school for pupils with intellectual disabilities in 2013. Even though workplace-based training is not compulsory within adult education at upper secondary level the government has encouraged apprenticeship education through extensive funding schemes.

This article focuses on apprenticeship education in upper secondary school (ISCED 3) in Sweden, a description of its specific features and a discussion of its main strengths and weaknesses.

⁽¹⁾ These so called ready education periods are built on agreements between social partners.

⁽²⁾ Normally the young person will hold a full-time position but the salary will amount to 75% of a full-time employment as part of the time will consist of vocational training.

A. Apprenticeship education in upper secondary school – characteristics and statistics

There are two pathways to study a vocational programme at upper secondary school; either as school-based education or as apprenticeship education. The main difference between these two pathways is the proportion of workplace-based learning. For the school-based pathway, at least 15 weeks of the entire education should be provided as workplace-based learning. Upper secondary apprenticeship education can start the first, second or the third year. From the moment the apprenticeship education starts, half of the education should consist in workplace-based learning. Also in apprenticeship education the school is responsible for the establishment of an educational contract or learning agreement (see section B.3). Diploma goals, subject syllabuses and orientations are the same in the apprenticeship pathway and in the school-based pathway. The same is true for admission and diploma requirements.

A.1. Entry requirements

Students apply for upper secondary school on the basis of their final grades from compulsory school ⁽³⁾. Only eligible applicants are accepted. For the 12 vocational programmes the student must have passed Swedish or Swedish as a second language, English, mathematics and five more subjects.

A.2. Structure and orientation

The Swedish upper secondary school is organized in 18 three-year national programmes, of which 12 are vocational programmes covering most vocational fields (see Annex 2 for details on programmes and orientations). The programmes are modular and organised in courses where one course usually is 100 credits ⁽⁴⁾. All programmes include foundation subjects, for example Swedish, English and mathematics and programme specific subjects, for example retailing and vehicle technology.

⁽³⁾ In Sweden there is a six-level grading scale, where the different grades provide points to an overall merit rating. Before selection to upper secondary school the pupils merit rating is calculated. In principle, the schools are only allowed to discriminate between the applicants based on their merit rating.

⁽⁴⁾ The upper secondary school credits are used as a measure of the scope of the studies and the effort required to attain the goals for a specific course. There is no direct relation between course credits and teaching hours.

The schools decide if a vocational programme should be provided as apprenticeship education and when the apprenticeship starts. The pupil chooses between the offered pathways. Education providers are responsible for that all students have access to staff with the competence to satisfy their needs for guidance and counselling prior to choosing education and vocational orientation.

A.3. Diploma requirements

After completing an upper secondary vocational education, either as school based education or as an apprenticeship education, students receive a vocational diploma for upper secondary education. Students should have grades for the education covering 2,500 credits of which passing grades provide 2,250 credits ⁽⁵⁾. Moreover, a pass in the diploma project is required. All students have the right in their programme or through extensions to study the courses required for basic eligibility to higher education. Students may also continue studying within a higher vocational education programme. On completion of upper secondary education some industries require ready-education period, a work placement or apprenticeship period, in a company before the person can take a trade and journeyman's examination or receive a trade certificate.

A.4. Funding

The major part of school funding comes from municipal tax revenues, but parts of the funding also come from a central general government grant to the municipalities. This is supplemented by targeted central government grants for special initiatives. The basic model for funding upper secondary school education is composed by a school capitation allowance ⁽⁶⁾ per pupil, irrespectively if the student attends a municipal school or an independent school. For apprentices, the vocational education organiser can apply to receive an extra government grant per apprentice and year, of which 83% is earmarked for the employer receiving the student. Moreover, the workplace can receive a surplus if the supervisor has participated in a training programme that has been approved by the National Agency for Education.

All students studying in upper secondary school receive a monthly study allowance. Since 2014 an apprentice can also apply for a supplement to cover extra living costs, for example transportation to the workplace and lunch. These subsidies are also funded by the Swedish government. As from July 2014 students attending apprenticeship education in upper secondary

⁽⁵⁾ The passing grades should include Swedish or Swedish as a second language, English, mathematics and programme specific courses of 400 credits.

⁽⁶⁾ The capitation allowance varies depending on the vocational programme and orientation.

school may be employed in what is called an upper secondary apprentice employment. That means that upper secondary apprentices can be offered employment while still in education in accordance with adapted labour law provisions.

A.5. Statistics

In autumn 2013 there were 295,809 students studying on a national programme in upper secondary school in Sweden. Of those, 107,037 pupils participated in a vocational education programme for upper secondary school and among them 5,991 were apprentices. Thus, 5.6% of all pupils participating in upper secondary school vocational education were apprentices. The proportion of apprentices is higher in the HVAC and Property Maintenance Programme, the Building and Construction Programme and the Business and Administration Programme. The contrary is true for the Natural Resource Use Programme and the Electricity and Energy Programme ⁽⁷⁾.

⁽⁷⁾ Statistics from the Swedish National Agency for Education.

B. Specific features of apprenticeship education in upper secondary school in relation to policy challenges identified at the EU level

During the past years the Swedish government has launched several initiatives to increase the quality of workplace-based learning and increase the attractiveness of IVET programmes in general. To further support VET-providers, employers and social partners in developing apprenticeship education and the quality of workplace-based learning the Swedish government decided in December 2013 on the establishment of an apprenticeship centre. The centre is run by the Swedish National Agency for Education and its tasks cover to different extent all policy challenges mentioned under the headings below. The centre's responsibility include among other:

- stimulating the provision of apprenticeship education in upper secondary school;
- promoting young people's interest in apprenticeship education;
- supporting and giving advice to VET-providers, employers and social partners in for example the organisation of apprenticeship education and training for supervisors at workplaces;
- stimulating cooperation at regional level between schools and the world of work.

Other initiatives and specific features of apprenticeship education at upper secondary school in relation to policy challenges identified at the EU-level are explained further under the different headings.

B.1. Support for companies, in particular SMEs, offering company placements

One main challenge for vocational education in general is to provide placements for the workplace-based learning ⁽⁸⁾. Local businesses sometimes find it difficult to train an apprentice and keep the profitability on a high level. To increase the incentive to receive apprentices, the Swedish government has decided on an extra government grant to schools for apprenticeships, where 83% of the grant is earmarked for the employer receiving the student (see also section A.4).

⁽⁸⁾ The Swedish School inspectorate: Upper secondary apprenticeship education. A quality audit of upper secondary apprenticeship education. Report no. 2013:02.

Furthermore in 2014 the Government decided on a grant geared at social partners and vocational boards to develop support for companies and other employers in the provision of workplace-based learning.

There are no specific support measures targeted only at SMEs.

B.2. Enhance programme attractiveness and career guidance

To further clarify regulations in the Education Act and curricula, the Swedish National Agency for Education offers general guidelines on study- and vocational guidance at all school levels. The teachers are responsible for linking the different subjects to the world of work and possible vocational outcomes. The importance of stimulating encounters with the world of work and the role of work-experience or tasters at an early age is also stressed ⁽⁹⁾. In-service-training activities geared at teams composed of teachers, study- and vocational counsellors and school leaders are offered by the Swedish National Agency for Education. The aim is, among others, to enhance the knowledge about the labour market and how it may be introduced in compulsory school.

A major challenge for enhancing the attractiveness of apprenticeship education is to strengthen its image as a form of vocational education in close cooperation with the branches with good opportunities to get a job after finishing the education. In connection with the annual information about the study options for upper secondary school the Swedish National Agency for Education runs a campaign with particular focus on the vocational programmes. Social media, as Facebook and internet based forums for youths are used to reach out with the information to the youths.

In 2014 a new funding scheme was introduced with the aim of increasing the number of pupils within upper secondary apprenticeship education and of stimulating the provision of apprenticeship education. The funding scheme is geared at upper secondary VET providers.

B.3. National governance, regulatory framework and social partners' involvement

As mentioned earlier, secondary apprenticeship education is one way of studying a vocational programme at upper secondary school. Governance and regulations are with a few exceptions the same irrespective of whether the vocational programme is school based or an apprenticeship education. Regulations steering apprenticeships education were introduced in the Education Act and in the Upper Secondary School Ordinance following the reform in

⁽⁹⁾ Regulations and general guidelines on study and vocational guidance. SKOLFS 2013:180.

2011. Steering documents in the form of curricula, diploma goals and syllabuses are drawn up by the Swedish government and by the Swedish National Agency for Education.

An educational contract or learning agreement is obligatory for every apprentice. The educational contract should specify the content and scope of the workplace-based learning. The pupil, the educational organizer and the workplace should sign the contract and a contact person and/or a trainer/supervisor should be appointed in the contract.

Upper secondary schools are responsible of finding the workplaces and deciding on how to organise, plan and follow up the apprenticeship education. Therefore apprenticeship education may be organised in a variety of ways. One school may have so called 'apprenticeship classes' where students are enrolled in different vocational programmes and meet at school for common lessons in the foundations subjects. Another school may have just a few students within a vocational programme pursuing the apprenticeship pathway. Whereas many will start their workplace-based learning during the first year at upper secondary school, others will do so first in their second or third year.

Every vocational programme has an associated national programme council. The national programme councils are advisory bodies composed of 6-10 representatives from industry, employer and employees organisations, as well as some authorities, and have the task of supporting the Swedish National Agency for Education in issues concerning for example the content of the vocational programmes and the demands of the labour market.

According to regulations schools offering vocational programmes should establish one or several local programme councils for cooperation between schools and working life. The tasks are not regulated but may include for example supporting the school organiser to provide workplaces, planning and organising the workplace-based learning and participating in the systematic quality assurance of apprenticeship education.

In several areas social partners cooperate through vocational boards to ensure the quality of vocational education and also follow up that the content of the education meets the requisites of the labour market.

B.4. Quality assurance in work-based learning and/or apprenticeship

It is the organiser or education provider that has the main responsibility for carrying out systematic quality monitoring. The Swedish School Inspectorate supervises and assesses the quality of the vocational education programmes in accordance to the steering documents.

In addition, there are several actions and initiatives to assure the quality of workplace based learning and apprenticeship education, for example the requirement of an education contract or learning agreement, the local and national programme councils and the establishment of the apprenticeship centre. There is an increased focus on the important role of the supervisor in delivering a qualitative workplace-based learning. The National Agency for Education has therefore the task to develop a web-based course for supervisors at the workplaces which consists of an introductory general module and a supplementary module that specifically addresses apprenticeship education. Moreover, The National Agency for Education has launched a training programme for VET teachers to become developer of workplace-based learning. After completion of the training the teachers may be engaged in a position as national developers and as such support the VET providers (upper secondary schools, for pupils with intellectual disabilities and municipal adult education) in their strategic work with quality development of the workplace-based learning. This may include how to find workplaces, assessment of students' workplace-based learning and collaboration between VET institutions and workplaces.

C. Main strengths and weaknesses of apprenticeship education in upper secondary school in Sweden

In this section, different aspects of upper secondary apprenticeship education programmes are discussed; the division of responsibility between the world of education and the world of work, the collaboration between schools and workplaces and attractiveness of apprenticeship education among the different stakeholders.

Since the middle of the 20th century school-based education has been the main way of organising initial VET in Sweden. Responsibility for VET in upper secondary school lies therefore within the world of education. The same is true for apprenticeship education even though more than half the education is provided at a work place. Thus schools are responsible for the implementation of apprenticeship education, such as finding workplaces, recruiting pupils and the follow up of pupils' goal attainment.

Having two different pathways but the same goals gives the possibility to combine the best elements of a school-based and workplace-based VET system. Students may choose depending on their interest and ways of learning. The modular structure with the same courses and diploma goals allows students to accumulate credits within a specific programme structure but gives also students the flexibility to move between the school based and the apprenticeship pathways. Furthermore national equivalence of vocational education at secondary level as well as the development of generic knowledge and skills may be secured. The system allows also adapting the provision of IVET programmes to changes in the labour market as school-based education may balance shortages of apprenticeship placements during periods of economic recession ⁽¹⁰⁾.

On the other hand, because workplace-based learning is the main part of apprenticeship education, and the schools are responsible for providing those placements, a well working collaboration between schools and workplaces is essential. Schools are obliged to have a local programme council (see also B3) but there are no regulations on how these councils should be organised. According to the Swedish Schools Inspectorate's quality report of upper secondary apprenticeship education there are big differences concerning collaboration between schools and working life ⁽¹¹⁾. Common elements identified in schools having well-functioning

⁽¹⁰⁾ *Gymnasial lärlingsutbildning – med fokus på kvalitet! Slutbetänkande av Nationella lärlingskommittén. SOU 2011:72*

⁽¹¹⁾ The Swedish School inspectorate: Upper secondary apprenticeship education. A quality audit of upper secondary apprenticeship education. Report no. 2013:02.

apprenticeship education are among others school organisers having a clear strategy for cooperation with working life and the allocation of enough time and resources that allow vocational teachers to have regular contacts with the workplaces. In many cases, however, responsibility lies on an active and engaged vocational teacher lacking support from school leaders and organisers.

As mentioned earlier steering documents are formulated by national education authorities. Even though this is done in close cooperation with industry representatives and social partners educational aims and goals are formulated within an educational discourse ⁽¹²⁾. The challenge for vocational teachers is therefore to ‘translate’ the subject syllabi to concrete tasks that may be carried out at the workplace and cooperate with the training supervisor at the workplace.

Attractiveness of apprenticeship education among the different stakeholders does not only depend on the system itself but also in other factors. The interest for apprenticeship education among both social partners and work places varies among different vocational sectors. Several social partners are through the so called vocational boards engaged in developing material and support for both schools and work places in a specific vocational area. Others stress the importance of a thorough school-based education prior to a work-placement. This may for example include basic vocational training and knowledge related to occupational safety ⁽¹³⁾. At present there are no studies that show the effects of the financial incentives (see A.4 above) on the number of workplaces. Follow up of the government grant for apprentices show however that most employers believe that the economic incentives are important but not decisive for taking on an apprentice. Instead reasons such as the wish to ease young peoples into the working life and future recruitment needs are mentioned. On the other hand representatives from the workplaces agree on that the grant is necessary to cover costs such as for example supervisor training ⁽¹⁴⁾.

As mentioned earlier apprenticeship education has not attracted the young teenagers and accounts for only around 5 percent of the pupils in upper secondary school IVET programmes. There are still a limited number of upper secondary schools that offer apprenticeship education partly due to difficulties in finding workplaces ⁽¹⁵⁾. From the companies’ point of view, there is a

⁽¹²⁾ Nilsson, A. (2014). *Arbetsplatsen som resurs i den grundläggande yrkesutbildningen. I: A. Panican (Ed.) Yrkesutbildningen för morgondagens arbetsliv*. Stockholm: Dialogos, pp. 15-38.

⁽¹³⁾ The Swedish School inspectorate, *ibid*.

⁽¹⁴⁾ Berglund, I., Höjlund, G., Kristmansson, P. & Paul, E. (2014). *Arbetsgivarnas användning av statsbidraget för gymnasial lärlingsutbildning och deras erfarenheter av att ta emot gymnasiala lärlingselever*. Stockholms universitet, Institutionen för pedagogik och didaktik.

⁽¹⁵⁾ The Swedish School inspectorate, *ibid*.

lack of time and resources. From the schools' point of view, supervisors may lack adequate training and sometimes a workplace provides too monotonous and limited tasks. ⁽¹⁶⁾ Reasons for the low interest among students have not been examined in depth. School representatives mention possible explanations such as low status, missing the social context of the classroom and worry for lock-in effects. To counterbalance this both social partners and educational authorities emphasise that upper secondary apprenticeship education imposes high demands on students' study motivation and the ability to take personal responsibility.

⁽¹⁶⁾ Nilsson, A. (2014), *ibid.*

D. Conclusions

There is a clear national goal to increase the number of apprentices at secondary level. It is regarded as a way to decrease youth unemployment and to decrease the mismatch between jobseekers and the needs of the employers.

Apprenticeship education as part of the formal IVET programmes was introduced in 2011 and is therefore still a relatively new phenomenon in Swedish upper secondary school. The development of apprenticeship education within the frame of the upper secondary school includes a broad spectrum of initiatives such as changes in the regulations of upper secondary school, financial incentives and support to schools and workplaces.

The first pupils that finalized apprenticeship education in the reformed upper secondary school did so in June 2014. It is therefore too early to draw conclusions regarding throughput and transition to work.

All stakeholders agree on that it takes time to establish and develop a new system. Schools in cooperation with workplaces are testing ways of organising apprenticeship education. Networking and exchange of experiences among schools is mentioned as one way of developing further apprenticeship education. At national level regulations are revised as a result of these first experiences. The possibility for social partners to further engage in the provision of apprenticeship education in upper secondary school is discussed. The establishment of an apprenticeship centre to support VET-providers, employers and social partners in developing apprenticeship education and the quality of workplace-based learning further stresses the new role of apprenticeship education in the Swedish upper secondary school.

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Gymnasial lärlingsutbildning – utbildning för jobb. SOU 2010:75

Nilsson, A. (2014). Arbetsplatsen som resurs i den grundläggande yrkesutbildningen. I: A. Panican (Ed.) *Yrkesutbildningen för morgondagens arbetsliv*. Stockholm: Dialogos, pp. 15-38.

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Annex 2. Upper secondary school vocational programmes

Table 1. National vocational programmes

Programme	Orientations
The Child and Recreation Programme	Recreation and health / Pedagogical work / Social work
The Building and Construction Programme	Plant vehicles / House construction / Land and construction / Painting / Sheet metal
The Electricity and Energy Programme	Automation / Computers and ICT / Electrical technology / Energy technology
The Vehicle and Transport Programme	Goods handling / Bodywork and paint spraying / Lorries and mobile machinery / Passenger cars /Transport
The Business and Administration Programme	Administrative services / Commerce and service
The Handicraft Programme	Cabinetmaking / Floristry / Hairdressing / Textile design / Other handicrafts
The Hotel and Tourism Programme	Hotel and conference / Tourism and travel
The Industrial Technology Programme	Operations and maintenance / Process technology / Product and machine technology / Welding technology
The Natural Resource Use Programme	Animals / Agriculture / Forestry / Gardens
The Restaurant Management and Food Programme	Baking and patisserie / Fresh foods, delicatessen and catering / Kitchen and serving
The HVAC and Property Maintenance Programme	Property / Refrigeration and heat pump technology / Ventilation technology / HVAC
The Health and Social Care Programme	No national orientations

Table 2. **Other vocational programmes within upper secondary school**

Programme	Comment
Dancing programme	Vocational programme in classical ballet and modern dance.
The Fourth Year of The Technology Programme	A one year vocational oriented training programme in engineering, based on the three year higher education preparatory Technology Programme. The fourth year is a pilot programme ⁽¹⁷⁾ .
The Air Traffic Technology Programme	A vocational programme with national open admission within upper secondary school with specific diploma goals and the following orientations: airplanes and helicopters.
The Marine Technology Programme	A vocational programme with national open admission within upper secondary school with specific diploma goals and the following orientations: service and repairs; electricity and electronics.
The Shipping Programme	A vocational programme with national open admission within upper secondary school with specific diploma goals and the following orientations: deck and machine.

⁽¹⁷⁾ This fourth year will be permanent as from 2015.