

ANALYSIS OF OCCUPATIONAL ACTIVITIES

Goal: A Viable Curriculum Related to Professional Practice

Certified professionals competently and reliably perform activities required in their occupational field (Vocational and Professional Education and Training Act). Initial VET must therefore focus on occupational **activities**, i.e. typical problems (situations) to be mastered by professionals. These may be grouped into **activity fields**. A valid collection of the respective activities is a prerequisite for the development of a national VET ordinance and a curriculum which is related to the actual occupational practice.

Analyses of occupational activities supported by SFIVET are based on workshops with young professionals and with experts of the professional organisations (PO). The PO are responsible for defining the typical activities of their occupation. SFIVET offers methodological support:

- Young professionals describe the typical activities they perform (1st workshop, 1 day)
- Experts of the PO group all the activities described into activity fields (2nd workshop, 1 day)

Example of an occupational activity (typical problem situation of a gardener):

Title	Fight disease and vermin
Goal	Disease and vermin free plants
Action	<ol style="list-style-type: none"> 1. choose the plant treatment product 2. calculate the amount of the product according to dosage and to be treated area 3. put on protective clothing 4. measure the plant treatment product 5. mix it with water = spray mixture 6. spray the mixture 7. clean the equipment 8. clean the protective clothing
Product	healthy plants
Participants	
Responsibility	by oneself
Material	plant treatment product, water
Tools	motor spraying device, protective clothing, technical literature
Workplace, duration	greenhouse, time required for 100 plants: 10 minutes
Knowledge	diseases, plant treatment products, plants, vermin
Skills	exactness, diligence
Mindset	sense of responsibility

COST-BENEFIT ANALYSES OF INTENDED REFORMS IN VET

Changes in training regulations due to reforms can have strong effects on the cost-benefit-ratio from the perspective of the firms and thus on the willingness of firms to train. The goal of a cost-benefit-analysis is the identification of such effects prior to the reform.

1. Analysis of the cost-benefit-situation prior to the reform

The required data is obtained by means of an online questionnaire sent directly to the training companies in the respective occupation.

2. Cost-benefit simulation

Costs and benefits of the intended new form of the VET program are compared to the situation prior to the reform by means of a simulation software. Cost-benefit-effects of reform measures such as the *introduction of degressive school models, host company networks or partial examinations before completing the VET program* can be taken suitably into consideration.

3. Break-even-analysis

The following questions are answered: What are the implications for the apprentices' productivity? How can be ensured that the cost-benefit-ratio after the reform will not be disadvantageous (compared to the situation before)?

4. Discussions with experts

To estimate possible dynamic effects of the planned reforms on the training policy, the quantitative analysis is supplemented by discussions with VET experts that are actively engaged in the respective occupation.

Optician: Apprenticeship salaries and workweek schedules

21 Usual number of working hours per week at the company: 42
41.57 41.5

22 Monthly apprenticeship salary for each of the apprenticeship years

	Year 1	Year 2	Year 3	Year 4
Gross monthly apprenticeship salary per capita (incl. wage components paid on an irregular basis)	650 559.29 500	800 742.33 700	1000 981.74 850	1200 1126.64 1000

23 Additional wage components

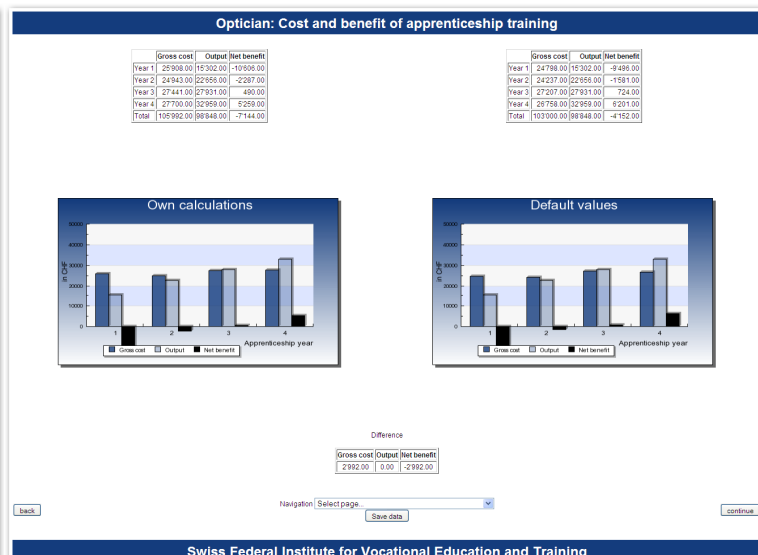
	Year 1	Year 2	Year 3	Year 4
13th month's salary	432.84 432.84 530	537.81 537.81 500	636.16 636.16 800	801.43 801.43 108
Other special/irregular payments (provisions, gratuities, bonuses, benefits in kind...)	295.68 295.68 261	292.9 292.9 0	373.45 373.45 300	242.26 242.26 0

24 Other monthly labour costs per capita (meal allowances, reimbursement of travel and accommodation expenses)

	Year 1	Year 2	Year 3	Year 4
Other labour costs in CHF	124.07 124.07 0	165.61 165.61 0	95.4 95.4 38	54.9 54.9 0

Navigation | Select page: | Save data | Results | Reset values | Continue

Swiss Federal Institute for Vocational Education and Training



VALIDATION OF PRIOR LEARNING (VPL) in VET

Context

- Lifelong learning, competence-orientation in VET
- Empowering people with a different educational background by attesting their informally and non-formally acquired competencies (in reference to a skilled occupation)
- VPL is an option in the new Vocational and Professional Education and Training Act

The VPL Process in Switzerland

1. Information and advice (candidates may be supported during the entire process)
 2. Compilation of the individual portfolio to provide evidence of acquired competencies
 3. Assessment of the individual portfolio by experts, interview with the candidate
 - 4a. Attestation of prior learning and identification of complementary education needs (i.e. competencies that are missing or cannot be attested)
 - 4b. Certification (Diploma / Title)
- Important instruments: Individual portfolio (dossier), profile of qualifications, pass requirements (conditions for success), evaluation report, attestation of prior learning

Role and Tasks of SFIVET in VPL

On the basis of its expertise with different aspects of VPL, SFIVET assumes a number of roles and tasks:

- Role as an expert in various steering groups
- Development of services in VPL and collaboration in different projects. Current examples:
 - Swiss representative in the Leonardo project “Observal” which is a European observatory for validation of non-formal and informal activities
 - Mandate from OPET for VPL regarding competencies of general education
 - Development of continuing education courses related to VPL
- Training of VPL specialists for coaching VPL processes and for assessing portfolios.

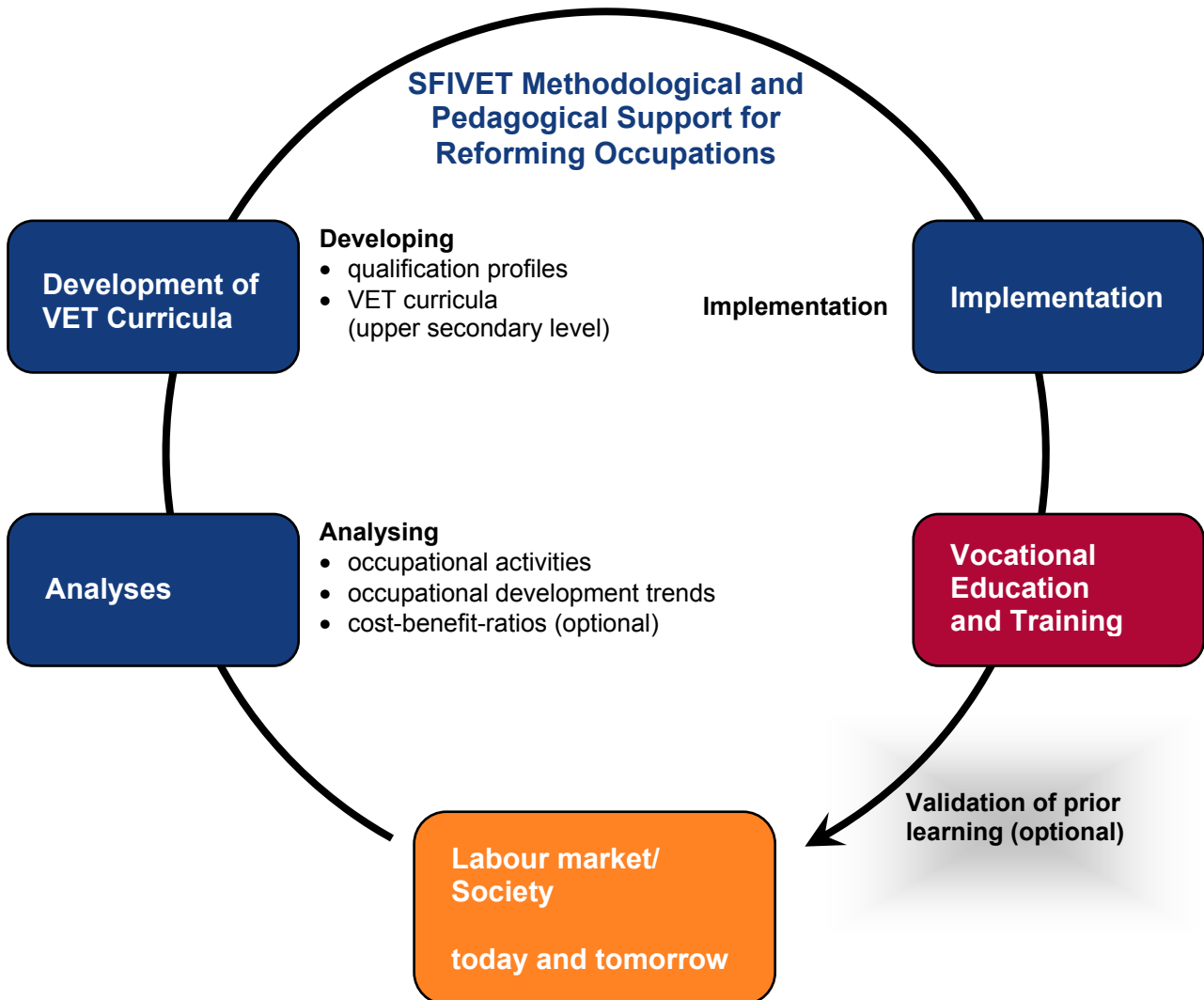
GENERATION OF THE OCCUPATIONAL PROFILE

As a result of the preceding analyses (of the occupational activities and development trends), the qualification profile of the occupation is generated.

Example of a Qualification Profile: Gardener (excerpt of a draft)

Area of Competence	Occupational Competencies					
	1	2	3	4	5	6
Consultation and sales	advise customers	take orders	sell products and services	write reports and delivery receipts	encash	present the range of products
Delivery and service	deliver the products	perform services				
Operational maintenance	supervise production facilities and equipment	carry out maintenance work	dispose of material ecologically			
Planting and seeding	prepare plant and crop surfaces	plant	plant lawns and meadows	prepare containers for planting	rework plants and planted surfaces	
Nourish and protect plants	nourish and fertilize plants	fight disease and vermin	tear and kill weeds			
...			

FROM THE OCCUPATION → TO VET → TO THE OCCUPATION

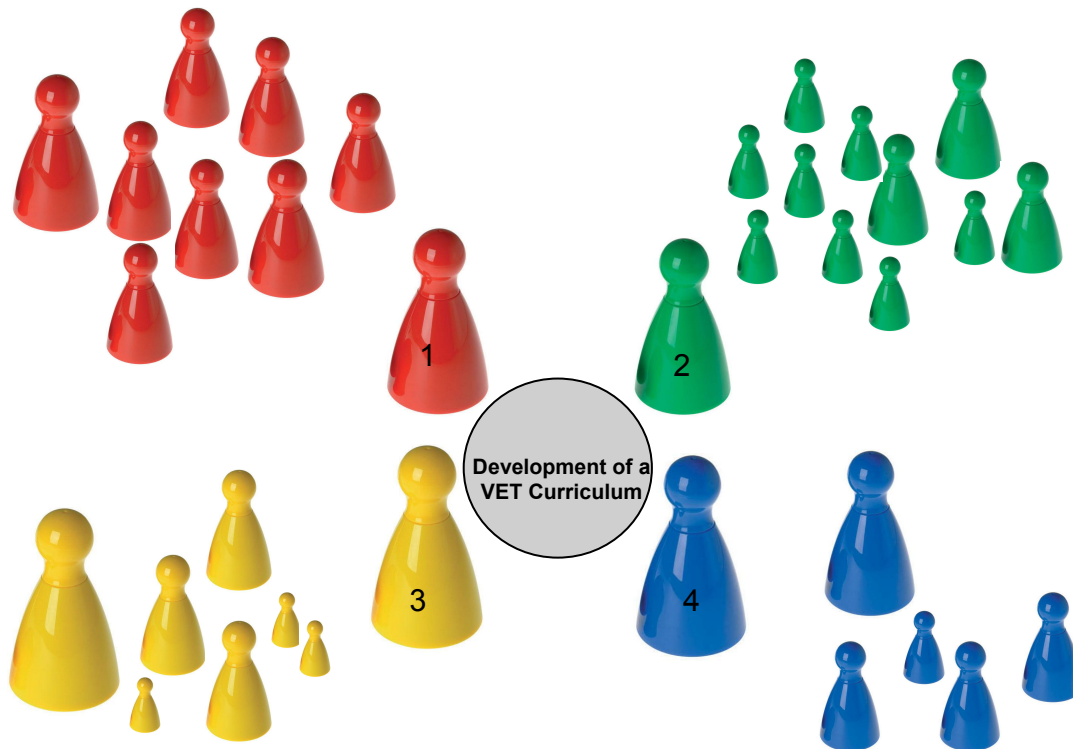


References

- Ghisla, G; Bausch, L. & Boldrini, E. (2008). CoRe – Kompetenzen – Ressourcen: ein Modell der Curriculumentwicklung für die Berufsbildung. Zeitschrift für Berufs- und Wirtschaftspädagogik, 3, 432-466.
- Kaiser, H. (2005). Wirksames Wissen aufbauen. Ein integrierendes Modell des Lernens. Bern: h.e.p.
- Kaiser, H. (2005). Wirksame Ausbildungen entwerfen. Das Modell der Konkreten Kompetenzen. Bern: h.e.p.
- Lave, J. & Wenger, E. (1991). Situated learning. Legitimate peripheral participation. New York: Cambridge University Press.
- Le Boterf, G. (1994). De la compétence. Essai sur un attracteur étrange. Paris: Les éditions d'organisation.
- Norton, R. E. (1997). DACUM Handbook. Leadership Training Series No. 67 (2nd ed.). Columbus, Ohio: The Ohio State University.

DEVELOPMENT OF A VET CURRICULUM: PARTICIPANTS

Goal: A Curriculum Supported and Shared by All Participants



Stakeholders (Key Players) and Their Interests

1. Defining and Negotiating the Curricular Content of VET for an Occupation

- Experts of professional organisations (PO) engaged in the occupational reform
- Workshop participants recruited to describe occupational activities
- Interests of responsables for apprenticeships in businesses (business-based training)
- Interests of teachers in vocational schools
- Interests of responsables for industry courses
- Interests of examination experts of the occupation

2. Cantonal Implementation of a VET Curriculum

- Delegates of the Swiss Conference of VET/PET Offices represent the interests of all the cantons which are mainly related to the organisation and financing of VET

3. Enforcement of the Vocational and Professional Education and Training Act (VPETA)

- OPET project responsables make sure that the VPETA is respected

4. Methodological and Pedagogical Support (if assumed by SFIVET)

- Application of SFIVET's quality standards

DEVELOPMENT OF A VET CURRICULUM: STRUCTURE AND PROCESS

Goal: A Consistent Curriculum Related to Practice

Components of a VET Curriculum (framework)

A: Occupational competencies

Description of the objectives for certification and distribution of the responsibility for the respective contents between the three learning arrangements (in-company training, in-school education and industry courses)

B: Schedules at vocational school

Contents (subject matters, competence areas) and number of lessons taught at vocational school

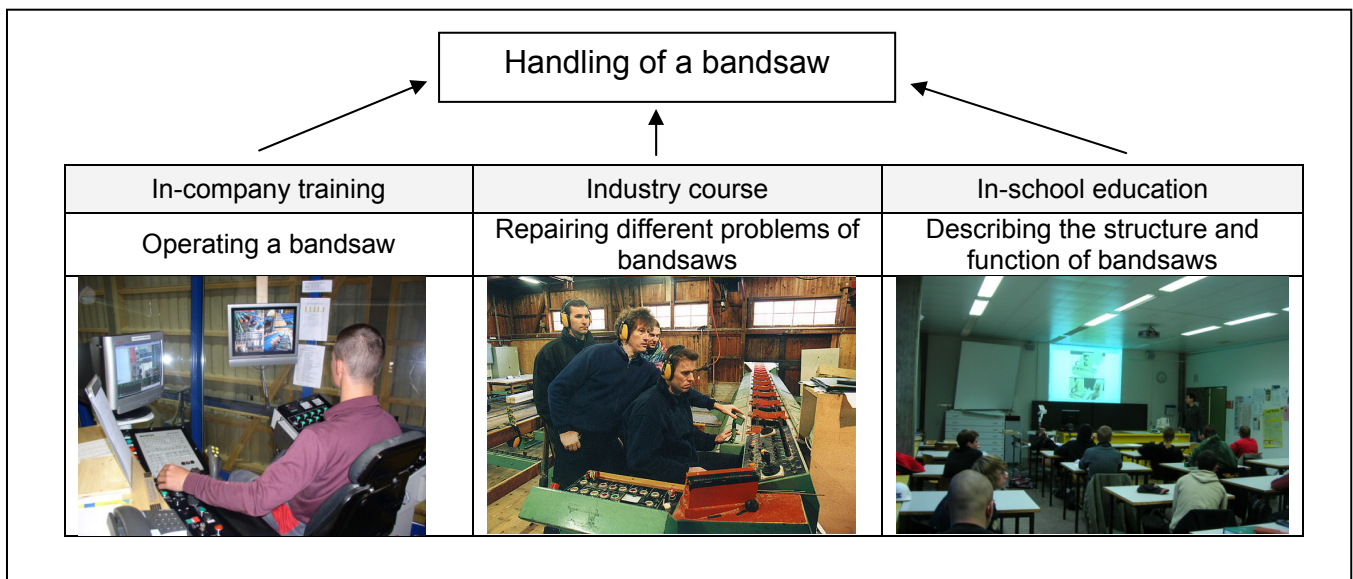
C: Industry courses

Contents treated in industry courses as well as organisation and duration of the courses

D: Qualification procedure

Description of the procedure (contents and grading of examinations) for evaluating the objectives

Occupational Competencies in the Three Training Arrangements



How a Curriculum Is Developed

- **By working groups composed of certified professionals** (to be defined by the professional organisations (PO), best possible representation of the occupational field)
- **SFIVET introduces the working groups and supervises their progress** (in close coordination with the responsables of the PO)
- **SFIVET coaches the working groups to reach a consensus**

Benefits

- **An intelligible, shared and future-oriented curriculum**
- **Clear responsibilities for the three training arrangements facilitate cooperation**