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SWISS FEDERAL INSTITUTE FOR
VOCATIONAL EDUCATION AND
TRAINING

*Swiss excellence in vocational
education and training*

The Situation-based approach of SFIVET – a comprehensive methodological and didactical approach in VET

1   INTRODUCTION

SFIVET's experience in developing curricula on the basis of analysing work situations was inspired by the 2004 VET legislation and its impetus on the VET landscape in Switzerland. All curricula in the basic VET tuition in Switzerland had to undergo a reform and be competence oriented. At this time, SFIVET developed a methodology how to define fully labour market oriented and competence based curricula. On the basis of DACUM methodology, SFIVET further developed and optimized a methodology that was used in over 100 reforms and revisions of curricula in Switzerland.
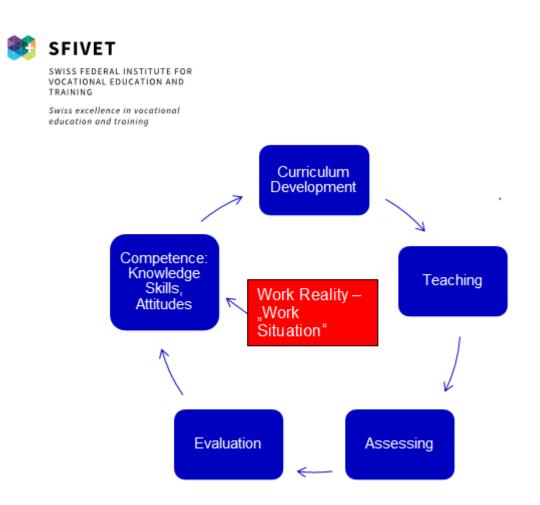
2   THE RATIONALE OF THE SITUATION-BASED APPROACH - CURRICULUM DEVELOPMENT

2.1   Psychological rationale for basing VET on work situations

Our memory consists of 4 different kinds of knowledge: declarative knowledge (facts and names, concepts etc.), procedural and sensorimotor knowledge (relates to the ability to perform routine tasks), attitudinal knowledge (relates to personal attitudes that are routed in one's values and standards) and situational knowledge (relates to all kind of experiences in all facets; cognitive, emotional, volitional etc.) Situational knowledge, however, is predominant over the others and provides access to all the other kinds of knowledge if these are not very well elaborated (which is normally not the case). The conclusion of this is: knowledge – be it declarative, sensorimotor or attitudinal - must be strongly linked to the real work situation in order to be used in this real work situation. This link needs to be developed through specific didactical measures.

2.2   Methodological rationale for basing VET on work situations – situation-based curriculum development

On the basis of the assumption that every profession consists of a specific set of work situations (or work activities), SFIVET's bottom-up approach in curriculum development collects work situations in a workshop by asking the invited young workers (note: not experts) what they do on an everyday basis. The work activities of these professionals are collected and clustered. The definition of a competence "competent we call a person who is able to manage a work situation successfully be mobilizing relevant knowledge, skills and attitudes" (Hansruedi Kaiser, 2005) links the work situation directly to the concept of a competence. By analysing work situations, we thus define all the necessary competences for a being able to perform successfully in a specific profession. With workers and teachers, we define the relevant knowledge, skills and attitudes for each of the defined work situations. In the curriculum, the typical work situations are described in detail and the relevant knowledge, skills and attitudes are attributed. Through this, we foster a tuition that is based on work situations which provides very vivid and relevant learning that is clearly focused on real life work situations or competences respectively. The work situation as a starting and an end point of VSD learning establishes the link between learning and applying (the cognitive structure and the experience in practice) and supports the development of situational knowledge.

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3   TRAINING

3.1   Situation-based teaching

Situation-based teaching is underpinned by the brochure of the same name written by Prof. Dr. Elena Boldrini, Dr. Gianni Ghisla and Luca Bausch and is available on our homepage. Basically, the idea is as follows: the real work situation must be transposed into the classroom. The work situation is then vivid and present and thus situational knowledge is developed. The apprentices should ask themselves what they have to know, to be able to do and with what attitude to be able to manage the transposed work situation successfully. The development of the relevant resources (knowledge, skills, attitudes) can be fostered through different ways of self-directed learning (or, depending on the context, also guided learning). After a session of developing resources, the appliance in a practical real or simulated work situation is crucial. The session should always end with a feedback regarding the stage of learning.

3.2   Situation-based instruction

The situation-based instruction approach can be realized much easier and more effectively when there are defined competencies to be developed in the in-company training (curriculum with defined competencies or skills for the in-company training).
If the situation to be developed is defined in the curriculum, the most important aspect of situation-based instruction is to follow the steps of the cognitive apprenticeship model for every skill: 1. Modelling, 2. Coaching, 3. Scaffolding, 4. Articulation, 5. Reflection, 6. Exploration
If the curriculum does not provide learning outcomes (competencies) for the in-company training or if there is no curriculum at all the work process to be trained must first be segmented into meaningful units for developing competencies which are work situations. Therefore in-company trainers have to be trained to be able to segment the work process into work situations. After segmentation and definition of work situations, knowledge, skills and attitudes respectively, the training process can follow the same steps as with the defined curriculum.

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4 ASSESSMENT AND EVALUATION

4.1 Situation-based assessment

As the assessment guides very much the learning process (focus and way of learning), the assessment must be in line with the methodology and the objective of the teaching or instruction: that is assessing competencies. This means we conduct practical exams and check whether all theoretical, skills related and attitudinal knowledge can be mobilized into practice. We combine the practical assessments with a theoretical discussion pointing at explanatory knowledge. Why do you do the things the way you do them?

4.2 Evaluation

Evaluation should point at the technical and pedagogical up-to-datedness of every work situation of the curriculum (or the training itself) and of the pedagogical implementation.

5 STRENGTH

The strength of the here presented approach is its coherence and stringency. Especially weaker learners profit from the reality-linked approach because of a low abstraction level. The comprehensive understanding of learning favours the use of the practical experiences. Thus, the situational knowledge helps to remember knowledge and to transfer theory into application.

Teachers and instructors profit the most from this approach because it facilitates competence-oriented teaching. The teachers know exactly what the essence of the competence is and do not have to artificially find relevance for subject-related knowledge. To practice with work situations appears relevant and meaningful to teachers, instructors and apprentices and thus the training gains in quality. Of course, apprentices profit considerably from good and relevant teaching and instruction. The relevance for the labour market of a curriculum that is elaborated in the way described above way is inherent to the methodology. Skills development of any kind profits massively from the situation-based approach.

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