

KNOWING HOW THE HARES RUN

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Measuring experience in the context of lifelong development

If you know how the hares run, you don't have to run yourself so much to catch the hare. Experience is the development of knowledge and insight in (professional) practice by observing and being involved in work processes. Experience is an important development tool that enables you to achieve better results compared to a novice practitioner. With the years of experience, the overview and insight grow. Work is performed more efficiently and effectively with the years of experience; the field of vision becomes broader in most cases and the contribution to the development of the entire organisation increases. With experience, a person can grow from a novice professional via professional skills to a mature professional, also known as an expert.

In the Netherlands, in an increasing number of professional fields, the value of experience is already recognised, and methods are being developed to validate this value. Sometimes the requirement of experience is explicit and professional competence needs to be demonstrated before someone can be taken up in a professional register. For example, professional registers who demand for validated experience already exist for child and youth care professionals, school leaders, social workers and safety specialists. In order to be registered, these registers sometimes require a diploma, but more and more often a person can be registered as a professional demonstrated through experience.

We do not yet have a common language in which we express the value of experience. Some of the professions mentioned above have developed their own scheme or standard specifically for this purpose. Other professions use the existing professional standard developed for novice professionals. But even then, validation on the basis of experience and not on the basis of education to be followed is appropriate.

It can happen that people, if they want to switch to a new profession, feel misunderstood if it turns out that after years of work, they still have to follow a two-year course in an education system designed to provide novice professionals. The years of experience are in these cases not converted to value for the new profession. Just because the diploma does not request experience. Being able to properly express the value of experience as a learning outcome can increase people's transfer value. It also helps to provide a faster pathway for those entering education, care and technology, or even to allow them to enter directly into practice.

Learning outcomes in learning taxonomies

We can use existing taxonomies to map out learning outcomes gained during experience. The European Handbook for defining, writing and applying learning outcomes refers to taxonomies as a hierarchy of conceptual stages of learning processes to describe learning outcomes. Processes for defining professional standards also use components of a professional activity; these components are similar to expected learning outcomes. The theory of communities of practice also requires a clear understanding of what needs to be learned and how best to learn. In using this theory, cognition, personal growth and professional

development in skills and attitudes are supported by clear statements about what is expected from the participant. Bloom's taxonomy is one of the most important theoretical models for thinking about learning outcomes and progression. The first iteration of this taxonomy provides a hierarchical classification of cognitive learning, making the transition from basic skills (knowledge and understanding) to increasingly complex skills (application, analysis, evaluation and creation of concepts, processes, procedures and principles). In a second publication, a hierarchy of learning was established for the affective domain. The affective taxonomy starts with the basic domain (receiving, reacting) and moving to more complex levels (valuing, organizing, characterizing by a value or value complex). The psychomotor taxonomy (skills) describes, starting with imitation and moving via manipulation precision to articulation and naturalization. These three hierarchies are shown in figure 1:

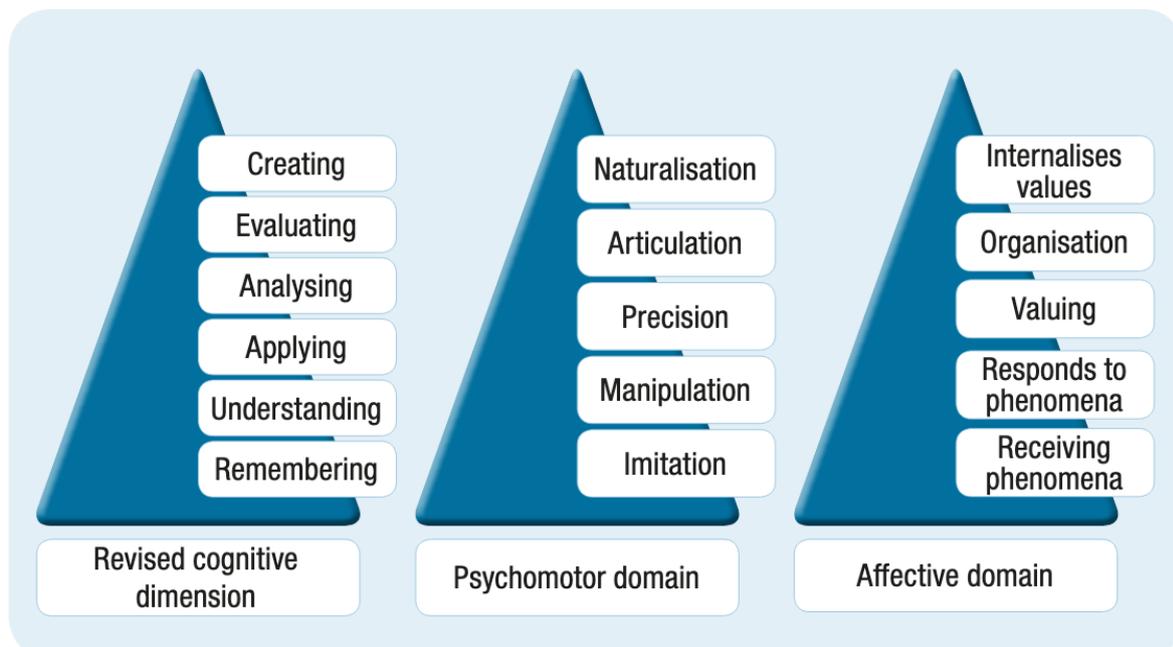


Figure 1 Bloom et al. (1956); Dave (1970); Anderson et al. (2001)

His approach has been criticised in various ways. Bereiter and Scardamalia (2005, pp. 12-13) stated that "we need ways of thinking about knowledge that allow us to be reasonably clear and definitive about what we are trying to achieve and yet do not require knowledge to be reduced to (...) objects in the mind". Depth and coherence of knowledge in the development of expertise, they argue, requires "getting under the surface, making contact with the underlying patterns and principles that give meaning and support intelligent action". The taxonomies developed (partly) in response to Bloom; in which increasingly complex verbs are included in three hierarchies, some of which are process-oriented; fit better with experiential learning. Bloom is mainly focused on cognitive learning and therefore fits less well with experiential learning.

In recent decades, two alternative taxonomies for learning outcomes have emerged, with deeper roots in constructivist theories. The first, the Dreyfus taxonomy, describes the student's progression from 'beginner to expert'.

Table 1. From beginner to expert

Source: Dreyfus, 1981; Dreyfus and Dreyfus, 1986.

- Beginning learners have an incomplete understanding and approach tasks in a mechanical way. Beginning learners need guidance.
- Advanced beginners have a working understanding of concepts. They tend to see actions as a series of steps. Advanced beginners can perform simple tasks without supervision.
- Skilled learners are able to understand the context. They can carry out the work independently to an acceptable standard.
- Capable learners have a deeper understanding and are able to see actions holistically. They are consistently able to reach a high standard.
- Expert learners have an authoritative, profound and holistic understanding. They are able to deal 'intuitively' with routine matters, to go beyond existing interpretations. They consistently achieve excellence.

With the Dreyfus taxonomy as a starting point, an important research tradition has developed, including the work on 'situated learning'. This shows how the increasing complexity of learning is intrinsically linked to context and setting, in which the individual learner moves from a peripheral, to a more central and involved position in the relevant community of practice. This underlines the key role that context plays in the writing of learning outcomes. The SOLO (Structure of Observed Learning Outcomes) taxonomy similarly describes the increasingly complex levels of understanding. Within SOLO taxonomy, understanding is described as an increase in the number and complexity of connections that learners make as they evolve from a lower to a higher level of competence. Learning is formed by prior knowledge, misconceptions or failures, learning intentions and strategies. The focus is on the depth and quality of understanding, rather than on the quantity of information.

Table 2: SOLO

Source: acquired from Biggs (1999)

Levels of demonstrated understanding	Developmental stage	Verbs
Pre-structural; no understanding demonstrated	Quantitative phase	Have no idea.
Uni-structural: concrete, minimalist understanding of an area, focuses on one conceptual issue in a complex case		Identify, remember, perform a simple procedure..
Multi-structural: indicates understanding of boundaries, but not of systems. Understanding of different but discrete components. Unorganized collection of ideas or concepts around an issue. Not related to items in the list.		Listing, classifying, describing, combining, doing algorithms.

<p>Relational: refers to orchestration between fact and theory, action and purpose. Insight into different components that are all conceptually integrated. Can apply the concept to known problems and work situations.</p>		<p>Compare, contrast, explain causes, integrate, analyse, relate, apply</p>
<p>Comprehensive abstract: conceptualizations at the level that go beyond the actual teaching and learning process. Can generalise to new areas.</p>	<p>Qualitative phase</p>	<p>Qualitative phase Theorizing, generalizing, assuming, reflecting, generating.</p>

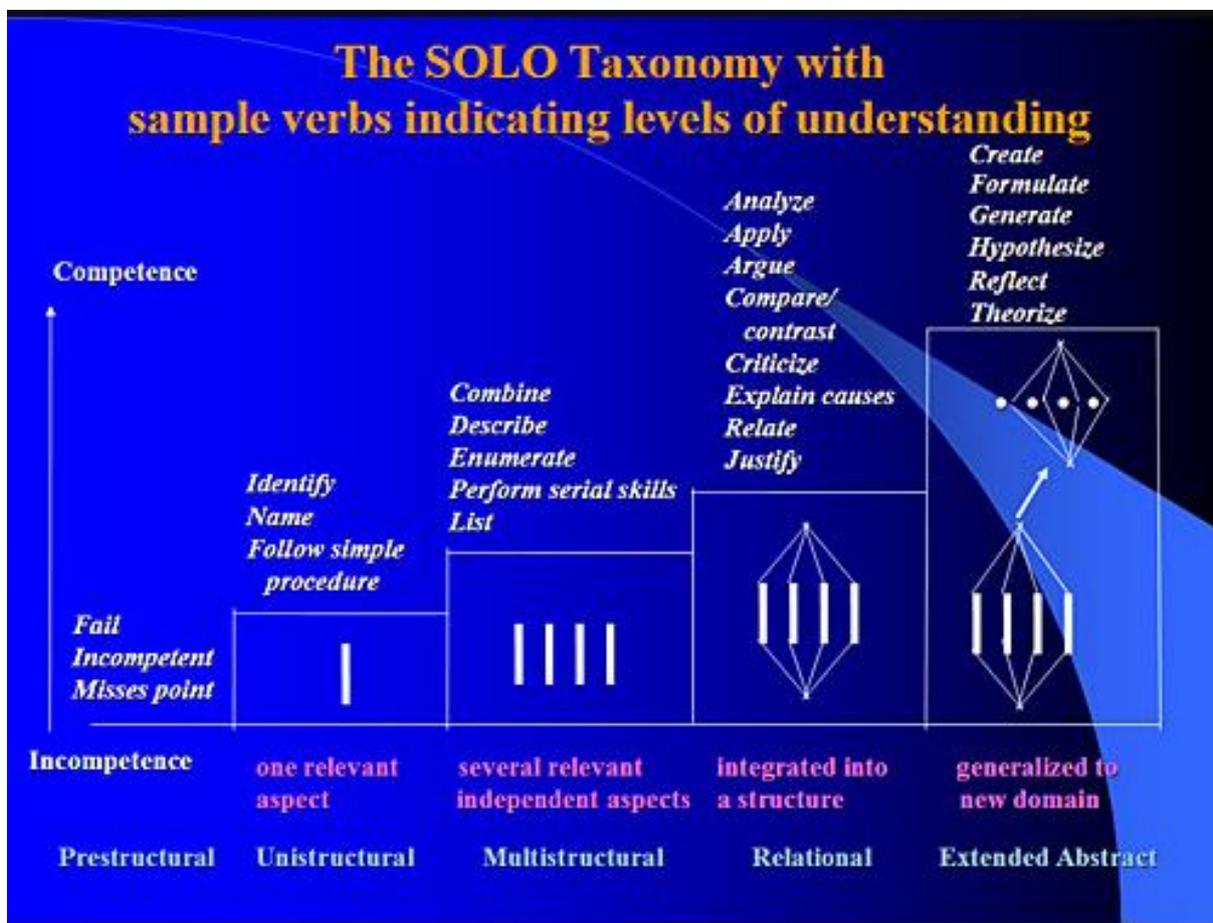


Figure 2: The SOLO Taxonomy; Biggs en Collis (New York; Academic Press, 1982)

Making the value of experience measurable

The above taxonomies have been used in practice, among other things, to define professional standards. Educational programmes and examinations have been developed with the help of these professional standards. The hierarchy of conceptual stages of learning processes is often recognizable in successive levels of professional standards.

One assumption may be that, in order to express the value of experience, one or two steps higher in the hierarchy of qualifications will suffice. In this way, a professional at level 3 develops to level 4 with the help of experience over time. And someone who is qualified at level 4 develops to HE level through experience. Unfortunately, we cannot get away with validating experience that easily. With most lines of study in VET, a level higher also involves a different task content. Things such as management, research, market research and analysis are added, and so there are more complex connections. The SOLO taxonomy focuses on deepening the understanding. The experienced expert makes conceptualizations at levels that go beyond the actual teaching and learning process. He can generalize to new areas. In Dreyfus taxonomy the expert has a profound and holistic understanding. Experts are able to deal with routine matters 'intuitively', to go beyond existing interpretations. So, the expert continues to do the same work, remains at his own expert level but gets better and better at it. Experts consistently achieve excellence.

If we want to value experience, we need to add a third valuation framework in addition to professional content and the validation of cross-curricular competences: The value of seniority ('insight gained through life and work experience'). The advantage of such a third valuation framework is that personal growth and development does not necessarily mean a change of work. Many professionals develop (throughout life) without the need for job change. Nevertheless, their value increases. By recognizing stages of seniority, we give words to personal development within one's own profession.

Professional worker who's able to start

Strong subject matter orientation. Possesses many components of knowledge at the starting level in the field. Is driven to find new knowledge. Knows procedures within the discipline and is able to apply them. Fast pace of work but is still looking for his own focus and efficiency.

Skilled professional worker

Strongly focused on success in the work to be carried out. Has theoretical knowledge but realizes that there is more knowledge and knows how to find it. Through experience informed about facts and developments in the field. Has insight so that different knowledge components, facts and experiences can be integrated into a successful contribution to the work process.

Experts

Aimed at increasing the chances of success of the work to be carried out, which contributes to the result for the position or the company. Possesses knowledge, understanding and insight that goes beyond the theory. Is able to deal intuitively with routine matters. Deviates from rules if this increases the chance of success. Insights the profession and is able to generalize insight and knowledge in order to make a contribution to the bigger picture.

By defining seniority in this way, this classification can be applied to any discipline and at any level with transversal competences. We are talking here just as much about the technician who, through experience, intuitively knows which method is best to apply and that in this one

specific case the usual working method must be deviated from as about the top manager who combines research, facts and intuition to create a new market opportunity for his organization. Both are senior in their profession and are able to coach starting and skilled colleagues so that they too can become mature experts.

Applicability in practice

Examinations are developed to determine whether a person is competent in his or her profession. All examinations in vocational education are part of a learning process in which the learner has become acquainted with the profession, has acquired the most important current knowledge and has learned to apply prescribed procedures in a practical environment. The exam tests whether what has been learned can be reproduced, whether procedures can be carried out and whether the learner is able to integrate this knowledge and his/her practical experience and/or to reflect on it from his/her own personal qualities.

The instrument of examination described above is not sufficient to determine whether a person is competent or mature because there was no subsequent orchestrated learning process in advance. Whether someone is competent, or a professional adult can be determined by means of validation of prior learning.

Validation of learning assesses whether the working learners can find the appropriate knowledge themselves and make it their own, whether they make it visible that they deviate substantiated from the existing concept, and whether they can substantiate their often intuitive choices afterwards. These aspects are much more important in the validation of their seniority level than assessing their cognitive knowledge alone.

If we look at flexibility in the labor market, the route to a new profession is often hampered by the long learning time candidates have to go through in education before they are able to start in the new profession. For many people this is a high threshold. In addition, many intuitively feel that there is also a degree of misunderstanding in the situation that a skilled professional has to enter another profession via the same route as starting professionals.

Finally

As soon as the profile of a senior professional has been defined, the candidate can be assessed on the basis of that profile. Valuing experience to a degree of seniority can facilitate the transfer to a new profession. The results of that assessment will be more acceptable to candidates because it justified the value of their experience. S(h)e is valued on his/her own level of seniority and gets to know which competencies really need to be developed in order to become a professional skilled teacher, counsellor, sales assistant, professor. For that additional learning, the candidate does not have to go back to regular school desks. A learning-working path in a working environment that has been made suitable as a learning environment, supplemented if necessary with coaching by an expert colleague, can be sufficient.

In this way, validation of experience can become a practical instrument for transfers on the labor market. Someone who is already good at hare catching does not have to start at the beginning of learning again if other animals have to be caught. By studying the new victim's way of life and gait, the expert hare catcher can quickly learn how to catch another animal. For this he/she does not have to become a 'young dog' again.

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