

# A four-stage model for lifelong competence development

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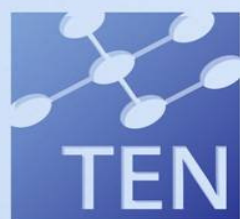


# **Service Oriented Approaches and Lifelong Competence Development Infrastructures**

**Proceedings of the 2nd  
TENCompetence Open Workshop**

**Manchester, UK, 11th and 12th January 2007**

**Edited by David Griffiths, Rob Koper and Oleg Liber**



**TEN Competence**

Building The European Network for Lifelong Competence Development

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## A four-stage model for lifelong competence development

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**Abstract:** Existing models of competence development are characterised by a fixed sequence of stages of which assessment by others and following a fixed set of competence development activities are obligatory components. This paper shows that these models do not do justice to the large diversity of learning needs among lifelong learners. It then presents a model, consisting of four non-obligatory stages through which learners can move freely: (1) orientation; (2) evidence collection; (3) assessment by others; (4) perform competence development activities.

**Keywords:** lifelong learning, competence development, informal learning

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### 1 Introduction

In this paper we develop a model of the process of competence development that does justice to the diversity of learning needs among lifelong learners. We base our model on a combination of two existing models, where each model is part of the competence development process, Duvekot (2005) and Fletcher (2000). Apart from combining these two models, we also bring to light the freedom of choice that the lifelong learner has. First, we present our definition of competence development in Section 2. Then, we list existing perspectives on the process of competence development in Section 3, on which we base our model in Section 4. The model was developed by the authors within the EU 7<sup>th</sup> framework TENCompetence project, as part of the background against which specifications for competence assessment can be developed. However, we think it applies more generally to lifelong learning.

### 2 What is competence development?

In this paper we use a broad definition of competence development. Borrowing the general idea from Hyland (1994), we define competence development as 'the general development of knowledge, understanding and cognition' in a person with respect to a specific domain. In our definition, competence development has the following characteristics:

- It is about personal understanding, and thus the emphasis is on the individual learner.
- Competence development is an ongoing process throughout life, thus is strongly related to lifelong learning

- All activities that a person undertakes may contribute to competence development. Competence development is not related to specific types of learning activities. Thus competence development involves informal learning; and although formal learning might be involved, and will be in most cases, it is not a necessary element.

In using Hyland's definition, we deviate from the definition of 'competence' used in the TENCompetence project in general, in which 'a competence is seen as a necessary ability of an actor to act effectively and efficiently to cope with certain problems, events or tasks in a situation (an occupation, a hobby, a market, a sport, etc.)' (*The TENCompetence "Personal Competence Manager"*, 2006). The project definition relies heavily upon Cheetham and Chivers (2005). Although we think this definition is correct and useful in general, for the specific purpose of this paper, we needed a definition that focused more on competence development, than on competence. We do not think that for other purposes the TENCompetence definition of competence and Hyland's definition of competence development are incompatible.

A first characteristic of our approach is the importance of learner goals. Learner goals are the drivers for individuals to engage in competence development. Following the TENCompetence Domain Model (see Koper, 2006), we claim that support for competence development should provide support to lifelong learners with any of the following goals:

1. I want to keep up to date within my existing function or job
2. I want to study for a new function or job or improve my current job level
3. I want to reflect on my current competences to look at which functions and jobs are within my reach or to help me define new learning goals
4. I want to improve my proficiency level in a specific competence
5. I want some support on a non-trivial learning problem
6. I want to explore the possibilities in a new field (learning network) to help define new learning goals

We consider all activities that a learner undertakes to reach these goals as activities of competence development. Brugman's phrase of 'competence development opportunities' (Brugman, 1999) captures this notion well. Note that this diversity of activities fits in well with our broad definition of competence development.

A second characteristic of our approach, which it shares with most, if not all approaches to competence development, is that competence development is seen as a process (see also Brugman, 1999). Not surprisingly, authors diverge in their view as to what the phases in the process are.

A third characteristic is that the process of competence development may proceed along several possible routes - some more formal, some more informal. Some routes will encompass a complete trajectory which ends in a qualification, but other routes will be fragmentary, in line with the incompleteness of some of the learner goals mentioned above.

### 3 Processes in competence development

As stated above, the idea that competence development is a process is not new. In this section we examine two frequently occurring perspectives on the nature of competence development. We show that these different perspectives lead to different descriptions of the competence development process. One of these perspectives comes from the literature on competence assessment, rather than competence development. Yet, as competence assessment is a central component of competence development, this perspective provides a useful element for a process of competence development, as we will show later. The choice of these two perspectives was based upon the following three criteria: (1) the perspective is relevant to both competence assessment and competence development; (2) the perspective focuses on the subsequent activities of individual learners; (3) the process of competence development is divided into separate stages.

#### 3.1 *The Validation of Prior Learning Perspective*

One perspective on competence development is that of the Valuation of Prior Learning (VPL). VPL is relevant when an individual, having acquired certain competences in both formal and informal learning, enters formal education. According to Duvekot (2005), VPL aims at recognition, accreditation/validation and further development of what an individual has learned in every possible learning environment, including both formal and informal learning environments. Duvekot (2005) distinguishes between five phases of the VPL procedure:

1. commitment and awareness – individuals become aware of their competences, organisations become aware of the importance of lifelong learning and VPL
2. recognition – identifying or listing competences, usually in a portfolio
3. the valuation or assessment of competences – using the portfolio or additional assessments
4. the development plan or the actual valuation – the valuation is turned into an action plan
5. structural implementation of VPL – VPL is structurally integrated into the organisation

In this approach, both learners and organisations are involved in competence development. In phase 1, both individuals and organisations become aware of their competences, and in phase 5, VPL is integrated into the organisation.

#### 3.2 *The competence assessment perspective*

Looking at the process of competence assessment, Fletcher (2000) distinguishes between the following stages [numbering of the stages are ours JS]:

1. State required criteria for performance (What are the required outcomes of individual performance?)
2. Collect evidence of outcomes of individual performances
3. Match evidence to specified outcomes



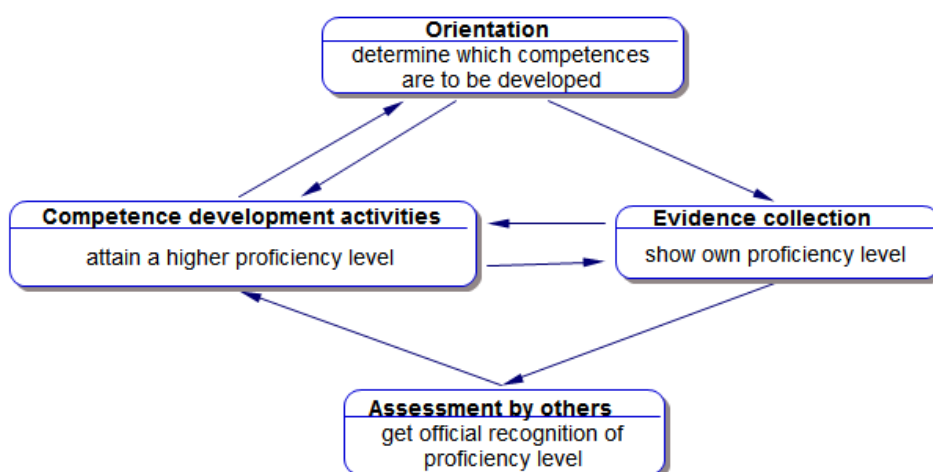
4. Make judgements regarding achievement of all required performance outcomes
5. Allocate 'competent' or 'not yet competent' rating
6. If purpose of assessment is certification: Issue certificate(s) for achieved competence
7. Plan development for areas in which 'not yet competent' decision has been made

The TENCompetence Domain Model (see Koper, 2006) makes a similar distinction with respect to competence assessment, distinguishing between:

1. Identifying the competences (given a certain function/job) that have to be estimated.
2. Gathering evidence (e.g. by using tests, by asking for diploma's, etc.) for the competencies
3. Making the decision on the proficiency levels an actor has acquired
4. Making a decision whether a person complies to the requirements of the different function/job levels to determine at which role level he/she functions.

#### 4 A four-stage model of competence development

In this section, a model of competence development is presented, which consists of four stages, based on the stages in the several perspectives presented in Section 2, and at the same time they are true to our definitions of competence development that were presented in Section 2. In our definition learners' goals are central to competence development. The model was developed by the authors in the TENCompetence project, as part of the background against which specifications for competence assessment can be developed. Figure 1 displays our four stages of competence development. Each stage is labelled by a header, and below the header the abstract learner goals corresponding to that stage are presented.



**Figure 1:** Cycle of learner actions and goals in competence development

The cycle of competence development starts with a process of orientation, in which the learner determines which competences s/he wants to develop. Once this decision has been made, the learner has a choice. One very quick route, typical for informal learning and competencies related to leisure activities, is to go directly to the competence development activities, based on the learner's interests and only very little knowledge of their current proficiency level. The other route, more related to formal learning and to professional development is to proceed by collecting evidence, which shows the learner's current proficiency level. After the learner has collected this evidence, they can again choose: either they can have their proficiency level officially recognized by others, or they can go directly to the competence development activities. Again, the latter route is the more informal learning route.

It is very important to realize that the formal learning route is still not completely formal. In fact, assessment by others is the point where the formal learning route starts, where previous learning, which might have been either informal or formal, is turned into a formal recognition. When the cycle is passed through for the first time, the moment of assessment carried out by others is often referred to as 'intake assessment'.

This cycle of competence development is to a large extent based on Duvekot (2005). Yet, true to our focus on the individual learner, those aspects that relate to the learning organisation, such as the awareness of organisations and the structural implementation of VPL, are left out. The model is also based on the assessment stages of Fletcher (2000) and the TENCompetence Domain Model (Koper, 2006). The first orientation stage is the same as the first stage of the TENCompetence Domain Model, but it differs from Fletcher's first stage which emphasises the institutional side ('state required criteria for performance'). The second stage is the stage of evidence collection, which is Fletcher's stage 2 and TENCompetence Domain Model stage b. The third stage is the stage of assessment by others, which encompasses Fletcher's stages 3, 4, 5, and 7 and the TENCompetence Domain Model, stages c and d. Note that the last stage of the competence development cycle, is not included in both models on competence assessment.

In general, our model differs from models in the literature in the freedom of routes that the learner may follow, which is indicated by the many, and bi-directional arrows in Figure 1. More specifically, our model differs from other models in that assessment by others is not obligatory. In the literature on competence development and competence assessment, it is usually assumed that evidence collection is a preparation for assessment by others, and will thus always be followed by assessment by others, and competence development activities can only be entered after assessment by others. This applies to the three models of Duvekot, Fletcher and the TENCompetence Domain Model. In our model evidence collection need not be followed by assessment by others.

Furthermore, in so far as the literature is concerned with competency-based education, competence assessment is always linked to competence development activities, thus leaving out the possibility of learners having their competencies assessed without entering competence development activities (Baartman, Bastiaens, Kirschner & Vleuten, 2006; Joosten-ten Brinke et al., In press).

## **5 Conclusions**

In this paper, we have set up a model of competence development and competence assessment with the following characteristics:

- It consists of four stages: orientation, evidence collection, assessment by other and performing competence development activities
- The four stages are based on the learner's goals, which vary with each stage.
- The stages that learners actually go through, and the order in which they do so, is highly variable
- After each of the first three stages, a learner can decide to enter competence development activities; assessment by others is one possible, but not exclusive, entrance to competence development activities
- In accordance with their diverse needs, learners may go through any of the first three stages without proceeding by entering competence development activities.
- All four stages are important and can be followed independently

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