Theoretical framework

Knowledge base
A knowledge base is intended to help professionals and a professional community to get to grips with the essential knowledge needed for their professional practice. Since the eighties, several attempts have been made to identify the knowledge teachers should learn and teacher educators should teach (Shulman, 1987; Valli & Tom, 1988, Verloop, Van Driel, & Meijer, 2001). Valli and Tom (1988) argue that an adequate framework for such a knowledge base is essential. It should cover not only the different domains (e.g. content knowledge, learner knowledge), but also meet criteria regarding the kind of relevant knowledge. On the latter, Valli and Tom distinguish between scholarly and practical relevance: a knowledge base should comprise knowledge and forms of inquiry based on traditional academic disciplines, as well as wisdom of practice or craft knowledge. Verloop, Van Driel, and Meijer (2001) agree with this position, and argue that along with formal propositional knowledge, teacher practical knowledge should also be included in a knowledge base of teachers. They note that by identifying the common elements in teacher knowledge, justice can be done to the complex and specific nature of teacher knowledge. Valli and Tom (1988) also distinguish a multiplicity criterion (room for competing explanations, perspectives and theories), a relatedness criterion (the “how” question must be related to goals, values and meanings having their roots in the social and historical context), a usefulness criterion (the knowledge base should encourage making a difference in the professional practice), and a reflectivity criterion (the knowledge base should encourage thoughtfulness about educational practices).

Shulman and Shulman (2004) choose a holistic approach and have developed a model combining general professional knowledge with complexity and individual differences (compare Jörg, 2007). Following Shulman and Shulman (2004), a knowledge base can be described as the shared knowledge of the community of professionals, in our case of teacher educators. They view such a knowledge base not as static, but as dynamic and growing. Shulman and Shulman redefined the different kinds of knowledge that should constitute a knowledge base using five clusters: vision, motivation, understanding, practice, and reflection (Figure 1). This implies that a teacher educator:

a. has a well-developed vision, directed towards teacher development; he/she can articulate his/her convictions, presuppositions and judgments and relate them to the social context and moral reasoning (disposition).

b. is motivated, shows compassion, endurance, trust and respect, and takes responsibility (motivation).

c. has a thorough understanding of what has to be taught, as well as how to teach it. This category is quite large and encompasses theoretical, methodical and practical (craft) knowledge (cognition).

d. is able to engage in appropriate performances in practice, in all its complexity (performance). Such skills will develop slowly over time.

e. learns from experience by connecting e.g. practice with theory or with vision in a reflective manner, so that he/she becomes more conscious of his/her performances, understandings and dispositions, may adjust or develop them, and bring them in accordance with each other (reflection).

Shulman and Shulman stress that there is an ongoing interaction between an individual professional and the community. Figure 1 shows the characteristics of a community of professionals and the interaction between the individual professional and the professional community.
Next, Shulman and Shulman (2004) state that a knowledge base consists of shared knowledge (knowledge a team or community should have), and distributed knowledge (knowledge each member should have).

Based on this model, we define a knowledge base of teacher educators as follows:

An **knowledge base of teacher educators is a structured and easily accessible collection of knowledge of the professional community. It includes theoretical, pedagogical and practical knowledge, and offers teacher educators the opportunity to confirm, interconnect, share and develop their professional knowledge, vision, motivation and practices.**

**Teacher educator**

In 1993, Ducharme described the identity of a teacher educator as "Janus-like" and "schizophrenic" (p. 4). He states that teacher educators seem to have even more than two faces: “School person, scholar, researcher, methodologist, and visitor to a strange planet” (p. 6). The vagueness about what it means to be a teacher educator has not disappeared, as Cochran-Smith (2003) stressed ten years later: the shift of the responsibility for the preparation of future teachers to the schools has added fieldwork supervisors and school-based personnel to the already broad/wide-ranging group of professionals called teacher educators.
But what all these teacher educators have in common and what we feel defines them, is that:

*Teacher educators’ core business is teaching and supporting (prospective) teachers in their professional development and doing this in the context of a curriculum.*

The curriculum concerned is at least positioned at bachelor-level (Buchberger, Campos, Kallos, & Stephenson, 2000), which in the European context is defined by the so-called Dublin-descriptors (Council of Europe, 1999), or in the OESO-context by levels of (tertiary) education (OECD, 2008). This implies that the curriculum has specified levels of attainment describing how to deal with knowledge and the application of knowledge in practice, and how to make judgments in the context of social, scientific or ethical issues, irrespective of where the teacher educator works (e.g. a school or a university or an alliance of schools and higher education institutions).

Many teacher educators are former teachers. The transition from teacher to teacher educator is not always easy. Several authors (Arizona group, 1995; Dinkelman, Margolis, & Sikkenga, 2006) emphasize that being a good teacher is no guarantee for being a good teacher educator. In fact, becoming a teacher educator is often a situation of "experts becoming novices" (Murray & Male, 2005, p. 135). Kremer-Hayon and Zuzovsky describe their transition from teacher to teacher educator as follows:

“My previous experience as cooperating teacher was not sufficient. As a teacher educator I was expected to help students place their experiences in theoretical frameworks, make linkages between theory and practice, fill in gaps in pedagogical knowledge, create sequences, and suggest meanings on sound rationales. How to do this was beyond my knowledge” (Kremer-Hayon & Zuzovsky, 1995, p. 160).

To clarify the difference between a teacher’s and a teacher educator’s work, Murray introduced the concept of first and second order teaching (see Murray & Male, 2005). In first order teaching, the focus is on teachers teaching pupils. In second order teaching, the focus is on teacher educators teaching (novice) teachers. So, we can distinguish different layers of teaching. The study of Murray and Male shows that characteristics of second order teaching are: working with adults, being familiar with learning styles of student teachers, being capable of structuring adult learning, and being able to recognize a student teacher’s potential. Recently, there have been several attempts at specifying the critical elements of a teacher educator’s identity. Swennen, Jones, and Volman (2010) have analyzed 25 articles relating to the development of teacher educators. Based on this analysis, they distinguish four sub-identities of teacher educators: a sub-identity as a (former) school teacher, as a teacher in higher education, as a teacher of teachers, and a sub-identity as a researcher. Swennen and her colleagues stress that the sub-identity ‘teacher of teachers´ is specific to the teacher educator. According to their findings, modeling teaching and modeling the teaching of values, and explaining this modeling are key elements in the teacher educator’s identity distinguishing the teacher educator from the school teacher and the teacher in higher education.