Literature review
Teachers’ core competences: requirements and development

Author: Francesca Caena
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General premise

1 Teaching and learning to teach can be defined as complex, multifaceted, value-laden enterprises against the global backdrop of the knowledge society. The continuum of teacher learning and teacher education, which turns out to be fundamental in a lifelong learning perspective, implies the need for an extended teacher professionalism (Feiman-Nemser, 2001, Williamson & McDiarmid, 2008); among the many challenges, there seems to be lack of agreement among experts, policy makers and reformers about what is most important in teacher preparation – considering the whole range of formal, informal and non-formal learning opportunities - and where or how it is learnt, as well as great variations in the commitment and prior knowledge of teachers (Schwille & Dembélé, 2007).

2 Teaching-learning processes, and learning to teach, can be qualified as social, contextual practices, reflecting ideologies - sets of values about the ideal teacher and citizen, and the function of schooling (Cochran-Smith, 2006). According to the latter, it ought to be assumed that any teaching, learning or training practice represents a value choice about key issues, mediated by institutional trends and external regulatory mechanisms; the responses to these key issues thus imply decisions linked with beliefs, priorities and ideals, as well as tendencies to maintain or change the present social order.

3 Because of their institutional nature, educational systems and teacher education are subjected to influences on different levels; among the key factors accounting for local variations, there can be historical references, teacher and citizen models, learning theories, school technologies, administration and management styles, costs and resources, and quality control systems (Cummings, 2003; Tattoo, 2006).

4 Nevertheless, theoretical perspectives, policies and professional practices, internationally, seem to indicate convergence on a few, very broad teacher paradigms or models, which can entail a plurality of educational aims and practices: the teacher as instructional manager; caring person; expert learner; cultural and civic person (Altet et al., 1996; Conway et al., 2010; Hansen, 2008; Seifert, 1999; Sackett, 2008).

5 In academic literature and debate, the predominant teacher paradigm, globally, seems to be the clinician-professional model (Darling-Hammond & Bransford, 2005; Shulman, 1987, 2005; Sackett, 2008), which codifies the bases of professional knowledge for practice, and claims to be based on research and the shared perspectives of experts and education professionals. The model, which takes after medical professionalism, describes the teacher as a reflective practitioner, who actively carries out research and critically deploys scientific knowledge to inform practice. Even though several references to key features of such a paradigm can be traced in most teacher education programmes of teacher education providers, as well as in official national documents regarding the competences required of
teachers, the gap between theory and practice, between aims and results often turns out to be significant in the specific socio-cultural contexts of teachers’ professional activities.

1. Philosophical approaches and recent trends in the debate on teacher competences

A shared definition of teacher skills and knowledge, as a framework to guide teacher education and professional development along the teacher’s career, has been highlighted as a key international priority, connected to clear objectives for student learning and a shared understanding of accomplished teaching (OECD, 2005).

1.1. International/European recommendations and studies

EU priorities for improving Teacher Quality and Teacher Education, as defined in the Conclusions of the Education Councils of November 2007, 2008 and 2009, recall the need to improve teacher competencies, as well as to promote professional values and attitudes, mentioning as examples the following teacher requirements (Council of the European Union, 2007, 2008, 2009):

- a specialist knowledge of subjects
- pedagogical skills, comprising the following:
  - teach heterogeneous classes
  - use ICT
  - teach transversal competences
  - create safe attractive schools
- cultures/attitudes of reflective practice, research, innovation, collaboration, autonomous learning.

The Conclusions are underpinned by the Life Long Learning paradigm stated in the Lisbon agenda, which underlines the importance of transversal competences (such as digital, learning to learn, civic competences) within the eight key ones required in a changing world - in particular, the meta-competence of learning to learn (adjusting to change, managing and selecting from huge information flows) (Commission of the European Communities, 2009; European Parliament and Council, 2006; European Commission, 2004).

The eight key competences for LLL are defined as follows:

- Communication in mother tongue
- Communication in a foreign language
- Mathematical, scientific, technological literacy
- Digital competence
- Learning to learn
- Interpersonal, civic competences
- Entrepreneurship
- Cultural expression.

The issue of the measurability of general and transversal competences has been underlined in the European working document on key competences (European Commission, 2004), which determines the basic, acceptable level of mastery of competences, and leaves room
for the distinction of more advanced levels of mastery in specific situations, thus underlining the relevance of contextual factors – cultural, social and linguistic ones. Competence adequacy, it is suggested, might best be described as mostly linked to the requirements of specific contexts and situations. Among the latter, variety in the connotations of some key terms in the descriptors according to different sociolinguistic contexts ought to be taken into account.1 The European document also highlights the interplay of the three areas making up each competence (knowledge, skills, attitudes), as well as the overlap between some of the eight competence domains – for instance, entrepreneurship and interpersonal, civic and learning to learn competences.

11 Among the fifteen quality indicators of lifelong learning set for European cooperation, in fact, there are references to the new skills for the knowledge society; one of the indicators, in particular, refers to the learning of teachers and teacher educators in initial Teacher Education (European Commission DG Education and Culture, 2002).

12 The document ‘Common European Principles for Teacher Competences and Qualifications’, produced by a working group of Member State experts, classifies three broad areas of competence:

- Working with others
- Working with knowledge, technology and information
- Working in and with society.

13 The first underlines the values of inclusion embedded in professional values, aimed at developing each student’s potential, together with interpersonal and cooperative skills, as well as psychological-pedagogical knowledge.

14 The second implies the abilities of retrieving, managing and critically analysing several kinds of information, involving digital skills applied to professional purposes, together with pedagogical and teaching skills.

15 The third requires teachers to act as responsible professionals in local educational communities and with different actors, and to promote the development of students as European citizens with global responsibilities, encouraging dispositions and attitudes to cooperation and mobility, intercultural dialogue and respect (European Commission DG Education and Culture, 2005).

16 With references to the key role of effective and efficient education and training systems for competitiveness and cohesion in Europe, the European Commission Communication Improving the Quality of Teacher Education stresses teachers’ needed key role as facilitators in promoting autonomous learning and key competences development through collaborative and individualised approaches, taking on management and decision-making roles. The pressing need to ensure shared quality standards for the attractiveness and harmonisation of education and training systems in Europe is thus highlighted once again (Commission of the European Communities, 2007).

17 The European Qualifications Framework for Life Long Learning, setting compatibility principles for national qualifications systems in Europe, represents a significant outcome of European cooperation, in accordance with such a need. Taking stock of relevant national

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1 An example can be the ambivalent connotation of ‘compromise’ and ‘tolerance’ in different national cultures.
diversities of education and training cultures within Europe, the descriptors of the eight levels in the framework are linked with learning outcomes described as knowledge, skills and competences (European Communities, 2008).2

Moreover, the European Education Council Conclusions of November 2008 regarding European cooperation on schools, in view of the cross-cutting nature of key competences for LLL to be acquired at the end of education and training, suggest the importance of a coherent approach to their development, transcending traditional subject boundaries, and improving assessment techniques in personalised learning (OJ 2008/C 319/08).

Among the international studies and projects regarding the definition and assessment of competences in education and training, the following should be mentioned:

- OECD’s DeSeCo project (Rychen & Salganik, 2003);
- the TUNING project (González & Wagenaar, 2005);
- studies on European Language Teacher Education (Kelly & Grenfell, 2002; Kelly et al., 2004);
- OECD’s TALIS survey (OECD, 2009).

The first of these – the DeSeCo project - has been defined by DeSeCo participants as complementary to other international comparative assessments, such as PISA (Programme for International Student Assessment). It can also be connected to Life Long Learning policies, in that it aims at defining cross-cultural key competencies, as a framework for longer-term assessments of competencies needed for successful life and a well-functioning society. Each key competency, to be qualified as such, must contribute to valued social and individual outcomes; it must help to meet important demands in a wide variety of contexts; and it must be important to all individuals3. It is assumed that a constellation of competencies is necessary in any situation. Reflective thinking and acting are central to this framework - the ability to deal with change, learn from experience and have a critical stance.

Within the framework, which is parallel to the EQF for Higher Education (Dublin Descriptors), teacher qualifications descriptors seem to be placed at Level 7 (second-cycle degree level). They include highly specialised knowledge and critical awareness; specialised problem-solving skills in research and innovation; competences in managing and transforming complex, unpredictable contexts, as well as contributing to professional knowledge and practice, individually and participating in/coordinating teamwork (European Communities, 2008).

DeSeCo classifies three broad, interconnected categories of competencies, underpinned by common values of democracy and sustainability:

1. use tools interactively
   1a. use language symbols and text interactively (communication, literacy, numeracy)
   1b. use knowledge and information interactively (scientific literacy)
   1c. use technology interactively
2. interact in heterogeneous groups
   2a. relate well to others (empathy, emotional management)
   2b. cooperate (present and listen to ideas; debate dynamics; build alliances; negotiate; consider different opinions in decisions)
   2c. manage, resolve conflicts
3. act autonomously
   3a. act within the big picture (understand system patterns, rules, expectations; identify consequences of actions for action choices)
   3b. form and conduct life plans and personal projects
   3c. assert rights, interests, limits, needs.
Two international studies on the objectives and features of European Language Teacher Education, as linked with teacher requirements, have been carried out by the University of Southampton for the European Commission. They yield indications of competences (with subject area specifications for Languages) on which there is a degree of international consensus. They are directly connected to European policies about multilingualism and multiculturalism, as interwoven with other key competences (e.g. entrepreneurship), and explicitly relying on the Common European Framework of Reference for Languages. Therefore, even if there is the expression of a subject-based perspective in describing the ‘toolbox’ of the European language teacher, they have endeavoured to find convergences for a common European discourse on Teacher Education – shared concepts, terminologies and tools of analysis.4

The outcome of the 2004 study - the European Profile for Language Teacher Education, defined as a frame of reference – aims at promoting teacher quality assurance processes and professional mobility, outlining 40 descriptors. In particular, as for the objectives and expected outcomes of teacher education, the required teacher competences are outlined in 27 descriptors, under the headings of knowledge and understanding, strategies and skills, and values; most of these descriptors are transversal to the teaching of all subject areas.

The descriptors underline the importance of digital competences, including pedagogical technological content knowledge (PTCK - i.e. the knowledge of new technologies applied to teaching the specific subject) (Mishra & Koehler, 2006); learning to learn, reflexive and research skills are also highlighted. European values and attitudes are stressed as key requirements: the attention to European citizenship rights and duties, as well as attitudes mirroring and promoting collaboration, cooperation, networking and lifelong learning, as linked to transversal skills (Kelly & Grenfell, 2004).

A different approach to looking at teacher competences is by examining the many different curricula for Teacher Education, especially Initial Teacher Education. The TUNING project (González & Wagenaar, 2005), which represents a concrete approach to implementing the Bologna Process within European higher education institutions and different subject areas, has developed a methodology for planning, implementing and evaluating study programmes in all three degree levels, making them more compatible and comparable within quality assurance mechanisms.5

Learning outcomes are thus defined in terms of general and subject-specific competence6 descriptors, as shared guidelines for flexible and autonomous curricular choices by higher education providers. The project report underlines the importance of general, transferable

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4 Such a frame of reference is the result of consultations with different categories of stakeholders in all European countries, by means of multiple methods – including visits and interviews in the selected case studies as examples of good practices in Teacher Education, for the development of relevant teacher competences.

5 The project has aimed at finding convergences and common reference points in European higher education programmes, involving a great number of university institutions in most EHEA countries, as well as over 100 international experts, and dealing with nine subject areas in the first stage. By means of the consultation of the main actors in higher education, as well as the analysis of local contexts, the project has defined shared descriptors of expected study outcomes in terms of competences.

6 Competences are described as a dynamic combination of cognitive and meta-cognitive skills: knowing and understanding; knowing how to act; knowing how to be. They should entail mobilizing specific skills and carrying out tasks, whose successful execution can be evaluated (González & Wagenaar, 2005).
Teacher Education, included in the Education Sciences area, is associated with 15 specific competences, described also in terms of skills, awareness, knowledge and interest; some of these are general, transversal competences, such as research competences, or advanced cognitive abilities for the development and creation of knowledge.

OECD’s TALIS international survey on Teaching and Learning, in building on existing studies about teachers’ professional development and teacher effectiveness, links teacher quality with pedagogical content knowledge, teaching philosophies or styles (constructivist vs. structured), self-efficacy perceptions and motivation, formative assessment and feedback (OECD, 2009, Chapter 2, pp.19-28). The idea of the continuum of teacher education and professional development is described as double-sided: the primary dimension regards the constant reflection to update and upgrade practice. The secondary one regards teacher features linked with the modernization of the profession: leadership features, linked with the attitudes of the teacher as a member of a professional community – as a researcher, a receiver of feedback from colleagues, an innovator, as well as an active collaborator of colleagues and principal.

1.2. Definitions of teacher competences in the literature

The definition of competence, as it is repeatedly suggested in relevant literature, should be viewed as a holistic concept – the dynamic combination of knowledge, understanding and skills, as shown by the following relevant examples:

- something that can be demonstrated to a certain level of achievement along a continuum (González & Wagenaar, 2005);
- the ability to meet complex demands, by drawing on and mobilising psychosocial resources in context – i.e. a complex action system encompassing knowledge (also tacit); cognitive and practical skills; attitudes such as motivation, value orientations, emotions (Rychen & Salganik, 2003);
- the combination of knowledge, skills, attitudes, values and personal characteristics, empowering the teacher to act professionally and appropriately in a situation, deploying them in a coherent way (Koster & Dengerink, 2008).

As a general premise, it might be useful to distinguish between teaching competences and teacher competences. Teaching competences can be described as focused on the role of the teacher in action in the classroom, therefore directly linked with the craft of teaching.
Teacher competences, which imply a wider view of teacher professionalism, can be said to consider the multi-faceted roles of the teacher on multiple levels – of the individual, of the school, of the local community, of professional networks. Even though dispositions seem to be fundamental for both, they seem to play a decisive role for teacher competences, as connected to the attitudes to constant professional development, innovation and collaboration. This can be seen in the following review, where the two kinds of competences, however, often seem to overlap or interweave – as they often do, in a holistic way, in the professional lives and experiences of teachers.

In the following paragraphs, basic teaching competences are taken into account in the first place, as summed up by Williamson & McDiarmid. Afterwards, the review takes into account recent perspectives about the need for extending requirements in teacher professionalism, thus including teacher competences.

Recently, international scholarly consensus seems to converge on the definition of competences – also defined as capacities - as basic requirements for teaching, articulated in knowledge, craft skills and dispositions (Feiman-Nemser, 2001; Grant, 2008; Williamson McDiarmid & Clevenger-Bright, 2008). Such a definition focuses on the potentialities of continuous development and achievement, associated with aims and objectives in a lifelong learning perspective, and it specifies requirements for each of the three areas.

The recent review by Williamson and Diarmid, which sums up relevant existing studies, mentions the following features in the knowledge area:

- subject matter knowledge
- pedagogical subject knowledge
- pedagogical knowledge
- curricular knowledge
- educational sciences foundations (intercultural, historical, philosophical, psychological, sociological knowledge)
- contextual, institutional, organizational aspects of educational policies
- issues of inclusion and diversity
- new technologies
- developmental psychology
- group processes and dynamics, learning theories, motivational issues
- evaluation and assessment processes and methods.

Craft skills consist in the following:

- planning, managing and coordinating teaching
- using teaching materials and technologies
- managing students and groups
- monitoring and assessing learning

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13 The term is increasingly used in a comprehensive way, as a dynamic dimension which goes beyond the original scientific connotations of containing and absorbing quantities (Grant, 2008).

14 Shulman’s definition of pedagogical content knowledge (PCK) includes knowledge concerning curricular materials, recurrent difficulties of subject-specific learning, learning contexts and objectives (Shulman, 1986, 1987).
• collaborating with colleagues, parents and social services.

Dispositions include beliefs, attitudes, values and commitment, focused on action; this area turns out to be more challenging to define, because of the elusive nature of the criteria for defining and assessing the presence of dispositions and attitudes for teaching, or the best strategies for promoting their development in initial teacher education.

The importance of global influences and professional standards has recently widened definitions of professional attitudes for teachers who need to be able to manage and generate changes; therefore, the following aspects ought to be taken into account:

• epistemological awareness (i.e. about relevant issues of the features and historical development of the subject area and its status, as related to other subject areas);
• dispositions to change;
• commitment to promoting the learning of all students (Williamson & McDiarmid, 2008).

A recent expansion of the concept of competence/capacity as a requirement for teaching reflects increasing academic and policy interest, which focuses attention on the social responsibilities of teachers. The key importance of PCK (pedagogical content knowledge) seems to be borne out by qualitative and quantitative studies, which suggest links between the teacher’s PCK and student learning (Schwab, 1962; Hill et al., 2005); moreover, a well-developed PCK seems to facilitate the individualization of teaching, of great relevance for equity in increasingly diverse classrooms, with a variety of cognitive and cultural profiles (McDiarmid, 1993).15

The equity issue, linked with the role of teachers as social actors, also requires teachers’ dispositions to promote students’ democratic attitudes and practices, as future European citizens – which is underlined by the White Paper of Intercultural Dialogue (Council of Europe, 2008).

The situated nature of teacher knowledge, learning and teaching is now widely acknowledged, viewing the latter as a practice mediated by social contexts and languages (Cochran-Smith, 2006; Giddens, 1984, 1990; Lakoff, 2004). As a consequence, the act of teaching is construed as the result of negotiations, wherein teacher capacities develop and are mobilized by means of interactions with educational actors and contexts, in reciprocal dynamics between institutional structures, actions, relationships and teaching tools/materials in specific contexts (Engeström, 1999).

The act of teaching is linked with social and political negotiations regarding contents and methods (curricula, assessment strategies, textbooks and materials), teaching practices and choices in the classroom, as well as dependent on the interactions with several different actors and stakeholders. Therefore, negotiating skills turn out to be of key importance for teaching, together with collaborative, reflective, interpersonal skills for learning in professional and school communities (Lave & Wenger, 1991; Wenger, 1998), and critical, evidence-based attitudes to one’s own practices (McLaughlin & Talbert, 2001).16

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15 In this case, teacher and teaching competences seem to overlap to a certain degree, since PCK, linked with the craft competences of the teacher, is directly connected to the wider social responsibility of the teacher for inclusion and equity.

16 These perspectives deal more directly with teacher competences.
Another recent focus of interest regards the concept of adaptive expertise applied to teaching, as a practice characterized by uncertainty (Bransford et al., 2000; Hatano & Oura, 2003; Vogt & Rogalla, 2009; Wang, 2001). Adaptive capacity or expertise, in this context, consists in the capacity of monitoring, steering and adapting teaching according to pre-requisites, objectives and learning processes. Adaptive capacity in teaching is thus defined according to a tetra-dimensional model – including subject knowledge, learning styles diagnostics, methodological knowledge and classroom management – developed transversally according to the capacities of adapting the planning and practice of teaching to students’ learning needs.

This underlines, once again, the growing importance of dispositions in teaching, especially the disposition to flexibility and ongoing learning, as well as to examining, discussing and questioning one’s own practices, in situations of uncertainty, unpredictability, swift change and complexity. It also entails the ability to adapt to multi-level dynamics with cross-influences – from the macro-level of policies to the micro-level of students and school communities.

Moreover, the developing weight of an ‘evidence culture’ in educational policies and practices highlights the significant value, within school communities, of the ability to draw conclusions and take decisions in a collaborative way, by collecting, analyzing, interpreting evidence and data of different nature – learning/teaching outcomes in a class or school, as well as external assessment/evaluation data - in order to enhance learning and teaching (Taylor & Nolen, 2004).

Further contributions to the conceptualizations of relevant teaching and teacher competences come from other research literature and studies, concerning socio-cultural perspectives on one hand, and effective teacher education and effective teaching on the other.

Research on teacher learning and thinking as social, supported, situated and distributed stresses the importance of socio-cultural and historical aspects in teaching contexts, embedding professional practice within an activity system - considering the interplay of several factors on multiple levels, from the macro level of national institutions and constraints, to the meso-level of school communities, and the micro-level of the individual teacher (Borko & Putnam, 2000; Engeström, 1999; Feiman-Nemser, 2008). Such a perspective sees the professional action, competences and features of the teacher as shaped

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17 The concept of adaptive expertise, applied to different areas, includes meta-cognitive aspects, such as the capability of assessing one’s results, as well as identifying and pursuing new learning objectives. Accordingly, whoever tackles new problems as opportunities for developing and boosting one’s competences shows adaptive expertise and dispositions, and qualifies as different from whoever considers new issues simply as opportunities to exercise one’s competences – as the artist can be distinguished from the artisan.

18 In this perspective, teaching and teacher competences are tightly interwoven.

19 In the definition of Engeström, an activity system represents a systemic unit of analysis to describe complex socio-cultural practices in education and training contexts. An activity system is described as composed of six elements: the object (the shared aim of the activity - of teaching or training), the tools (the instruments and materials which are produced within a specific socio-cultural context of teaching), the subject (the individual or group directly concerned with the activity), the community (the participants in the activity who share the common object in the socio-cultural context), the division of labour (the division of social roles, the interactions between community members), the rules (the regulations, norms and constraints which shape the processes in the activity system) (Engeström, 1999).
and developed – in a decisive way - by the needs, influences and constraints of multiple, embedded socio-cultural contexts.

On the other hand, effective teaching research (Brophy & Good, 1986; Gage, 1989) and value-added research (Hanushek, 2002) endeavour to describe principles of effective teachers and effective teaching as linked with student results.\(^\text{20}\) Bearing in mind the distinction between teacher competences and teaching competences described before (OECD TALIS, 2009), we can then consider perspectives coming from studies on effective teacher characteristics - which provide a list of features of teacher professionalism\(^\text{21}\) - and from studies on effective teaching characteristics (i.e. processes) - which describe features of effective teaching on which there is broad consensus.\(^\text{22}\)

As for the latter – effective teaching – we can consider also studies viewing instruction as an opportunity for insightful learning (Baumert, Blum & Neubrand, 2001, cit. in OECD TALIS, 2009, p.30), which describe an opportunity structure as including classroom management, the pacing and range of learning opportunities, instructional quality, teacher-student and student-student relationships.

Furthermore, theoretical perspectives also distinguish effective teaching from good/quality teaching (Fenstermacher & Richardson, 2005), underlining the need to encompass contextual factors when considering good teaching as morally defensible/rationally sound, in order to define good teaching as separate from successful teaching - which indicates that learning took place.

Moreover, teacher knowledge research, linked with teacher learning/ cognitive studies (Shulman, 1987; Tatto, 2007; Zeichner, 2008), conceptualizes teacher knowledge domains, stressing, once again, the importance of subject knowledge and pedagogical content knowledge (PCK) (Krauss et al., 2008).\(^\text{23}\)

\(^{20}\) Such studies are often criticised for the dangers of narrowing the focus of teacher preparation, concentrating on individual teacher performance and underplaying contextual factors.

\(^{21}\) Teacher professionalism thus includes attitudes (commitment, confidence, trustworthiness, respect), reasoning (analytical and conceptual thinking), expectations (drive for improvement, information-seeking, initiative) and leadership (flexibility, accountability, passion for learning) (Anderson, 2004; Hay McBer, 2000); it also stresses the importance of an individual and collective sense of self-efficacy (Geijssel et al., 2009; Goddard, Hoy & Hoy, 2000).

\(^{22}\) Among the principles of effective teaching (Brophy, 2001, cit. in OECD TALIS, 2009, p.29) there are references to classroom climate, scaffolding, practice activities, coherent content, cooperative learning, goal-oriented assessment, strategy teaching, and achievement expectations. Effective teaching variables can be summed up around six broad concepts: curricular dimension, teacher-directed classroom management dimension, teaching strategy dimension (structured teaching; teaching strategies; teaching metacognitive strategies), climate dimension, evaluation/feedback dimension (Scheeren, 2007). Effective teaching studies results seem to point out the success of eclectic teaching strategies, combining constructivist and direct instruction features. This implies pre-structuring and scaffolding, combined with self-regulated learning and guided reflection on learning processes. This suggests the effectiveness of a broad spectrum of classroom organisational/teaching skills and rich teaching repertoires.

\(^{23}\) PCK is conceptualized as knowledge of tasks, of students’ prior knowledge, of instructional methods – i.e. selection of topics, forms of presentation, analogies, illustrations, examples, explanations and demonstrations; understanding of easy/difficult topics and student conceptions/misconceptions; knowledge of appropriate use of teaching materials/media; strategic knowledge of application of teaching strategies. Deep knowledge about content and structure of subject matter is considered a crucial precondition for pedagogical content knowledge. (Shulman, 1987).
Finally, there is a growing recognition of the value of locally generated knowledge, taking place in schools as professional communities of practice and inquiry, overcoming the hierarchical distinction between formal, theoretical knowledge and practical, professional knowledge (Cochran-Smith & Lytle, 1993, 2009; Hagger & McIntyre, 2006).

2. Teacher competences and professional standards

Describing, defining and assessing teachers’ professional knowledge and competence at any career stage is not simple or straightforward, neutral or universal, fixed or certain, but historically and culturally bound, subject to change and contestation. Therefore, competence statements, so as to recognise the complex, multifaceted nature of teaching, acknowledging the role of values, ought to be clear and not over-elaborate (Conway et al, 2010). This is suggested also by the ETUCE Policy paper, according to which teacher competences should be high-level, broadly defined statements of the characteristics of teachers at different career stages, and therefore be built on a concept of teaching as praxis interweaving theory, practice and the ability to reflect critically on one’s own and others’ practice (ETUCE, 2008).

A professional standard describes what teachers are expected to know and be able to do (Ingvarson, 1998). Professional standards for teachers can be considered as representations of visions of practice and measuring tools for professional judgement:

- means for describing a consensus model of what is most worth in teaching knowledge and practice, as well as instruments for providing specifications of levels of achievement (Kleinhenz & Ingvarson, 2004);
- tools for rendering appropriately precise the making of judgements and decisions in the context of shared meanings and values (Sykes and Plastrik, 1993).

According to the latter authors, standards are tools often used to accomplish multiple purposes:

- as uniform measures to organize transactions
- as rules monitored for compliance
- as signals that convey information
- as exemplars that represent ideals
- as principles that direct action.

Their worth should therefore be judged according to the consequences of their use; moreover, the appropriate degree of precision and prescriptiveness will vary according to the subject of the standard. Standards are justified with reference to some system of meanings and values as sources of authority, which supply the terms and grounds for evaluation of the standard itself. However, creating a shared normative frame is a dynamic and problematic element of standard setting, by means of political as well as technical processes for creating consensus (Sykes and Plastrik, 1993, pp.4-5).

2.1. Implications of a standard-based approach to teaching

In educational theory and discourse, there are contrasting views on an approach to teaching, teacher education and career development based on competences as professional standards. In the context of the drive towards standard setting coupled with educational reform in the
US in the Nineties, Sykes and Plastrik outlined the controversial, sometimes contradictory outcomes of the concern with standards in educational contexts, since they might bring about discord and fragmentation despite the good intentions of bettering educational results by a stable and shared guidance (Sykes & Plastrik, 1993).

Disagreement over the basis for professional standards, it is argued, depends on the ambivalence inherent in professional work – the discord between lay people who appraise professional performance in terms of outcomes, and professionals who tend to judge performance in terms of what is accomplished in relation to contextual constraints of the specific situation (Millman & Sykes, 1992).

### 2.1.1 Positive perspectives on professional standards for teachers

Positive perspectives consider standards as instrumental to encouraging the reconciliation of divergent views (Kleinhenz & Ingvarson, 2004); as a consequence, they become linked to academics’ legitimization of teacher knowledge bases and of the teaching profession.

If well written, standards should focus on what pupils should be learning as a result of teaching conditions; as measures of professional competence, they should define what to measure, how to collect evidence, and what counts as performance standard.

They can be effective tools for quality control about entry, training and practice (Yinger & Hendricks-Lee, 2000); however, a useful distinction should be made between generic and specified standards, content and performance. Loosely defined, broad standards invite local interpretations, while operationalised, detailed standards enable us to make judgements (Thrupp, 2006).

It has also been argued that:

- agreed standards establish internal control by the profession over training, entry and practice, allowing the profession to consolidate its legitimacy;
- the pressure on the teacher to interpret her classroom practice with reference to the parameters set by the standard guards against teaching being seen as an idiosyncratic activity to which some are born and some are not. (Yinger & Hendriks-Lee, 2000);
- standards and competences can provide a basis for developing valid systems for teacher accountability and performance, and as vehicles for professional learning (Kleinhenz and Ingvarson 2007);
- standards-based teacher evaluation systems can lead to enhanced professional learning if they allow teachers to play an active role in self-directed enquiry (Darling-Hammond, 2000; Pyke & Lynch, 2005; Danielson & McGreal, 2000).

### 2.1.2 Criticism of teacher standards culture

Critics of standards culture raise the objection that teacher standards can imply taking on a neutral, technical perspective, overlooking the nature of teacher knowledge as context- and person-bound. This perspective could lead to making linear and causal connections between teacher behaviours and student outcomes, with the danger of forgetting contextual factors (Ball, 2003; Pring, 2004).

Other criticisms are that such approaches:

- ‘atomise and fragment the teacher’s role rather than representing it as in integrated and coherent whole’ (Brundrett, 2000);
• emphasise measurable behaviours and outcomes to the neglect of more subtle qualities and situational factors;
• privilege the standard-setter’s voice over the teachers’ diverse voices;
• forget the distributed or shared nature of teaching competences (Conway et al, 2010).
• through an instrumentalist and prescriptive approach, lead to a situation where ‘the work of teachers is reconfigured so they become the deliverers of knowledge, testers of student outcomes and pedagogical technicians’ (Smyth & Dow, 1998); or
• through ‘the specification of objectives, performance reviews (…) may encourage teachers to behave in ways that are antithetical to certain fundamental educational values such as altruism, intellectual independence ...’ (Olssen et al, 2004).

In fact, values underpinning standard statements have often been found to overlook or simplify the complexity in teaching and learning (Eraut, 1994; Korthagen, 2004; Zeichner, 2005). Since the standards culture has been defined by some critics as the re-conceptualization of previous perspectives connected with process-product research and effective teacher performance, the risks of deprofessionalisation and fragmentation in conceptualizations of teacher’s roles have been underlined (Cochran-Smith, 2006).

The outcomes of cognitive research on teacher knowledge, in fact, have suggested the importance of teachers’ construction of new knowledge, in response to different contextual needs (Hagger & McIntyre, 2006). Moreover, teaching for understanding and critical skills requires a different assessment of learning outcomes from transmission, content-based models of teaching; standards-based discourse and assessment by educational or institutional actors involved in quality control processes might thus combine with underlying transmission teaching concepts, which might seem more easily compatible with a standards view as focused on the technical skills of teaching and the link with measurable student outcomes. The risks of undermining the variety and creativity of teacher practices, reducing responsiveness to student needs, have thus been pointed out. Finally, some raise objections to the use of standards as measuring tools for professional assessment linked with career incentives, since they might reduce teacher autonomy and attitudes to critical reflection on one’s own values (Menter et al., 2010).

2.3. National policies and approaches to teacher competences and professional standards

There seems to be a huge variety of approaches to the definition and implementation of teacher competence frameworks in national educational policies, ranging from a ‘light touch’ definition of broad competence sets (e.g. Finland, and recently France) to prescriptive lists, linked with professional standards and career advancement (e.g. New Zealand, the UK and the US).

In teacher education and educational policies, two contrasting approaches about standards can be outlined, as regards the ways in which they are used and the consequences for teachers:
• a bureaucratic and technical approach for accountability purposes, focused on measuring, monitoring, comparing and regulating individual behaviour;
a developmental use, with loose definitions of competences as indicative of performance, 
stressing principles and codes of practice in a complex, situated, relational, socio-cultural 
activity like teaching.

The first perspective can be associated with the skills-based approach in the UK or the US, 
which has often been criticised. Scholars question the rationale for standards, focused on 
individual teachers’ performance, rather than on holistic professional development (Apple, 
2005); in the US, the so-called ‘standard stampede’ would thus drain life from education, 
through an inordinate and excessive preoccupation with technical standards (Sergiovanni, 
2000). In the UK, experts point out that standards seem to have been recruited to underline 
content and marginalise matters linked with values, attitudes and personal qualities 
(Furlong et al., 2000; Hargreaves et al., 2001).

The second view sees standards as descriptive tools for reflection, sense making and 
guiding professional action, helping to identify developmental opportunities and needs at 
individual and school level (Conway et al., 2010; Darling-Hammond, 2000; Pyke and 
Lynch, 2005).

Studies on the functions and impact of the teacher standards culture in different countries 
show wide variations in standards implementation and use, according to the contexts and 
the responsibilities for judgement. On the whole, the presence of teacher standards seems to 
be no guarantee of actual quality standards, since “the devil is in the interpretation” 
(Conway et al., 2010; Koster & Dengerink, 2008; Mahony & Hextall, 2000).

2.4. **Studies on teacher expertise and competence levels development**

An issue in the teacher standards and competences debate, which especially concerns 
stakeholders and decision-makers who are responsible for policy development and 
implementation, regards the possibility of reaching international consensus on a framework 
which manages to describe different levels of teacher expertise, taking into account all 
relevant aspects of such a multifaceted activity.

The TUNING approach has endeavoured to work towards such a goal, by defining level 
descriptors for each degree cycle in several subject areas, including Education; the 
possibility of developing sublevel descriptors has been debated by project participants, but 
without coming to a final conclusion. Competence descriptors, it is underlined in the final 
TUNING report, are meant as reference points for evaluation, not straightjackets, allowing 
for flexibility while providing a common language. ²⁴

Research strands on beginning teachers and the differences between novice and expert 
teachers have given insights into features of teacher expertise and stages of professional 
development and concerns (Berliner, 2001, 2004; Burn, Hagger, Mutton & Everton, 2000; 
Conway & Clark, 2003; Darling-Hammond & Bransford, 2005; Goodson & Hargreaves, 
1996; Hagger & McIntyre, 2006; Hobson et al., 2006; Poulou, 2007; Brekelmans, Wubbels 
and van Tartwijk, 2005).

First of all, teacher expertise seems slow to develop, requiring at least three to five years; in 
fact, it requires teaching as a deliberate, reflexive, purposeful practice and high quality

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²⁴ The following sublevels distinction has been mentioned in the project report: for 1st cycle degree programmes, 
basic, intermediate, advanced sublevels; for 2nd level degree programmes, advanced and specialized sublevels.
feedback. This emphasizes the importance of professional support at the beginning, in the crucial induction period; this priority is increasingly being acknowledged in recent reforms and national policies in Europe.

The key features of teacher expertise - or professionalism, as French scholars prefer to define it (Perrenoud, 1994; Altet et al., 1996) can be summed up as follows:

• the routinisation of teaching activities – i.e., the development of patterns of action,25 and teaching repertoires;
• the sensitivity to social demands of the classroom and the recognition of classroom dynamics;
• flexibility and improvisation;
• understanding problems;
• domain-and subject-specific expertise in recognising patterns in the complexity of classroom life.

In fact, a double agenda of interdependent functions seems to be involved in teaching – a diachronic, reasoned, deliberate and slow function for decisions on objectives; a synchronic, automatized, economical and fluid function for interactive routines in class (Berliner, 1987).

The personal and extremely complex nature of teacher’s practical thinking – professional craft knowledge - is highlighted, as characterized by mostly tacit thoughts and decisions in classroom interaction (Hagger & McIntyre, 2006). If the effectiveness of professional craft knowledge depends on personal judgement, holistic schemata and tacit knowledge, it can be inferred that the development of such expertise requires elaborate, demanding cognitive processes especially at the beginning of the career, when teachers are performing without the necessary classroom experience and knowledge for a critical, informed and systematic examination of their practices by comparing and interrogating several sources. Such an activity appears problematic, since every action of the teacher turns out to be value-laden and connected to deeply rooted beliefs.

The critical examination of one’s own teaching, therefore, requires processes of ‘practical theorizing’ which turn out to be more easily carried out in school contexts, by means of classroom practices and professional dialogue: it entails a critical analysis of one’s own practical ideas, rather resistant to change as underpinned by individual value judgements and theoretical premises on priorities in teaching strategies and aims.

Two basic requirements are underlined as fundamental, minimum objectives for preparing quality teachers:

• the capability of systematic assessment of one’s own professional knowledge and practices on the basis of a wide range of criteria coming from practice, theory and research;
• critical and responsive attitudes to innovation and professional improvement (Hagger & McIntyre, 2006).

25 In French literature, the concept of *habitus* is employed to describe the ‘structuring structure’ that allows the teacher to face a wide variety of situations, with slight adaptations. It involves patterns of action as ‘patterns of perception, assessment and decision’, which activate knowledge (in French, *savoirs*), transforming it into competence. The concept of *savoirs* is then described as ‘multidimensional, dynamic organizations of meanings with affective connotations, attributed to subjects, classes, relationships or structures in specific situations’ (Altet et al., 1996; Perrenoud, 1994).
Finally, studies on teacher learning and development seem to show that teacher concerns might follow recurring patterns of development, but are mostly linked with deeply rooted beliefs and attitudes, as well as socio-cultural context dynamics.

Socio-cultural influences are linked to the contexts and conditions of acquisition and use of professional knowledge, which include subject- and student- specific aspects. The focus of interest thus shifts from individual changes and developments in teacher preparation and progression to the interactions between teachers and different learning contexts, and the significance of the latter in promoting or hindering evolutions (Borko & Putman, 1996).

As for general tendencies in the development of teacher thinking according to expertise development, study results are contrasting; nevertheless, they seem to point out the tendency of interests and priorities of teachers to moving outwards – from self-centred concerns for classroom survival to attention given to student learning (Furlong & Maynard, 1995).
References


Teacher competence frameworks: three international perspectives

A. European Profile of Language Teacher Education. A Frame of Reference (Kelly et al., 2002; Kelly & Grenfell, 2004)

The European study of 2004 outlines the proposal of a reference framework for assessment and programme evaluation in Language Teacher Education, describing the toolbox of competences of the European language teacher – in terms of linguistic, didactic, cognitive abilities and technical skills. It follows up the results of the preparatory study of 2002, which defined a common core of knowledge, skills and values, as well as structure features, of a desirable European Profile of Language Teacher Education; both studies are therefore complementary to and compatible with Bologna process objectives and EQF descriptors, running parallel to the work of the TUNING project in defining expected learning outcomes in terms of competences.

The profile is to be considered in a holistic and multidisciplinary perspective; it is also suggested as useful to promote the awareness of the European dimension in teacher education, and of the processes for ongoing teacher learning. As in the TUNING approach, guidelines for quality assurance complete the profile, clarifying and defining objectives, expected outcomes, transferable skills, methods and activities, assessment modes and critical issues.

In the following excerpt only 27 descriptors out of 40 are reported – the ones related to Knowledge and Understanding, Strategies and skills and Values are reported, while the 13 descriptors concerning the structure of European Language Teacher Education are omitted.

It can be seen that most subject-specific descriptors (in italics) can have a transversal relevance also in other subject areas – e.g. abilities linked to self-directed, independent language learning, the usage of European documents such as the European Language Portfolio, or the teaching of another subject in a foreign language.

European Profile of Language Teacher Education. A Frame of Reference
(excerpt, focusing on expected learning outcomes of teacher education)

Knowledge and Understanding

- Language teaching methodologies, and state-of-the-art classroom techniques and activities
- Development of a critical and enquiring approach to teaching and learning
- Language proficiency
- Information and communication technology for pedagogical use in the classroom
- Information and communication technology for personal planning, organisation and resource discovery
- Application of various assessment procedures and ways of recording learners’ progress
- Critical evaluation of nationally or regionally adopted curricula in terms of aims, objectives
- and outcomes
• Theory and practice of internal and external programme evaluation

**Strategies and Skills**

• Ways of adapting teaching approaches to the educational context and individual needs of learners
• Critical evaluation, development and practical application of teaching materials and resources
• Methods of learning to learn
• Development of reflective practice and self-evaluation
• Development of independent language learning strategies
• Ways of maintaining and enhancing ongoing personal language competence
• Practical application of curricula and syllabuses
• Peer observation and peer review
• Developing relationships with educational institutions in appropriate countries
• Action research
• Incorporating research into teaching
• Content and Language Integrated Learning (CLIL)
• Use of the European Language Portfolio for self-evaluation

**Values**

• Social and cultural values
• Diversity of languages and cultures
• Importance of teaching and learning about foreign languages and cultures
• Teaching European citizenship
• Team-working, collaboration and networking, inside and outside the immediate school context
• Importance of life-long learning

**B. The TUNING approach – Education Sciences subject area: Teacher Education (González & Wagenaar, 2005)**

The TUNING final report, in describing an approach to the implementation of the Bologna process with the design of higher education study programmes as compatible and comparable in Europe, stresses the multidisciplinary nature of the subject area of Education - and of Teacher Education in particular, where teaching subjects are used to explicate the nature of teaching, learning and assessment in a wide variety of socio-economical contexts. Moral and ethical values, because of the human focus of the subject, are highly prioritised.

The competences as expected learning outcomes described in the TUNING project are compatible with the European Qualification Framework and the Dublin descriptors for Higher Education.26

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26 The Dublin Descriptors for academic degrees in the three levels of the Bologna Process are grouped according to the following areas: knowledge and understanding; applying knowledge and understanding; making judgements; communication; learning skills. They express expected competences on completion of each...
The TUNING report presents a list of 15 specific competences for the Teacher Education area, developed by the Education Sciences Working Group, and evaluated in a survey of students, academics and employers. The specific competences list integrates the framework of level cycle descriptors, which outline the common competences to Education studies and Teacher Education programmes, expected at the end of a first and second cycle degree (the latter is by now the generally expected degree level one for European teachers).

The following excerpts present a synthesis of relevant competence descriptors in each case, avoiding repetitions.

**TUNING Educational Structures in Europe II**

**Education Sciences area - Specific Competences: Teacher Education**

The descriptors in italics are linked to key generic competences (transversal to other subject areas beyond Teacher Education)

- Commitment to learners’ progress and achievement
- Competence in a number of teaching/learning strategies and assessment and understanding of their theoretical bases
- Competence in counselling learners and parents
- Knowledge of the subject to be taught
- Ability to communicate effectively with groups and individuals
- Ability to create an equal and fair climate conducive to learning for all learners, regardless of their socio-cultural-economic context
- Ability to make use of e-learning and to integrate it into the learning environments
- Ability to manage time effectively
- Ability to reflect upon and evaluate one’s own performance
- Awareness of the need for continuous professional development
- Ability to assess the outcomes of learning and learners’ achievements
- Competence in collaborative problem-solving of educational issues in a variety of contexts
- Ability to respond to the diverse needs of learners
- Ability to improve the teaching/learning environment
- Ability to adjust the curriculum and practices to a specific educational context.

**Common level cycle descriptors for Education Sciences AND Teacher Education**

A note specifies that not all competences will be fully developed at the end of the first cycle studies and will continue to develop over the professional life continuum, both in formal, informal and non-formal learning contexts.

**First Cycle (Bachelor)**

The first cycle descriptors include the three areas of the Common European Principles for European Teacher Qualifications (European Commission, 2005).
Specific competences
• work with information and knowledge of subject taught, educational issues and theoretical bases;
• work with human beings, analysing complex situations about learning and development in context;
• work with society on different levels, including the development of professional values and the ability to reflect on practices and contexts
• ability to reflect on one’s own and others’ value systems, development and practices

Generic key competences
• capacity to learn
• autonomy
• decision-making
• appreciation of diversity and multiculturality
• ethical commitment
• critical and self-critical abilities
• capacity to improve one’s own learning and performance, including study and research skills
• ability to analyze, synthesize, evaluate, identify problems and work out solutions
• firm knowledge of the profession in practice

Second Cycle (Master)
Specific competences
• development of knowledge and understanding in chosen area of professional specialization
• ability to use research appropriate to discipline to inform practices
• ability to reflect on values appropriate to educational activities

Generic key competences
• research skills
• leadership skills
• ability to reflect on and evaluate one’s own performance
• development of advanced cognitive skills associated with knowledge development and creation

C. Synthesis of recurrent, shared definitions of teacher competences/capacities in recent educational studies (review by Williamson & McDiarmid, 2008)

The following list synthesizes key elements of a recent review of relevant conceptualizations of teacher competences in recent international literature, as cited above, considering input from several research strands and studies.
Knowledge

- subject matter knowledge
- pedagogical subject knowledge
- pedagogical knowledge
- curricular knowledge
- educational sciences foundations (intercultural, historical, philosophical, psychological, sociological knowledge)
- contextual, institutional, organizational aspects of educational policies
- issues of inclusion and diversity
- new technologies
- developmental psychology
- group processes and dynamics, learning theories, motivational issues
- evaluation and assessment processes and methods.

Craft skills

- planning, managing and coordinating teaching
- using teaching materials and technologies
- managing students and groups
- monitoring and assessing learning
- collaborating with colleagues, parents and social services
- negotiating skills
- collaborative, reflective, interpersonal skills for learning in professional communities
- ability to adapt to multi-level dynamics with cross-influences (from government policies to student, classroom and school dynamics)
- ability to draw conclusions and decisions on the basis of interpretations of evidence and data, for teaching and learning enhancement.

Values

- epistemological awareness (i.e. about relevant issues of the features and historical development of the subject area and its status, as related to other subject areas)
- dispositions to change
- commitment to promoting the learning of all students
- dispositions to promote students’ democratic attitudes and practices, as future European citizens
- dispositions to flexibility and ongoing learning
- dispositions to examining, discussing, questioning one’s own practices.

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27 Shulman’s definition of pedagogical content knowledge (PCK) includes knowledge concerning curricular materials, recurrent difficulties of subject-specific learning, learning contexts and objectives (Shulman, 1986, 1987).