

## Learning and design principles for teacher educators' professional development

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### 1. *Status and context*

This document '*Output 1: Learning and design principles for teacher educators' professional development*' has been written in the context of the Erasmus+ project of InFo-TED. The main goal of this output is to describe underlying general design principles that InFo-TED will use for the development of the two main outcomes of the Erasmus+ project: (1) a European summer academy for teacher educators and (2) a virtual learning environment for teacher educators. The design principles are based on (1) the conceptual model developed by InFo-TED (see for instance, Kelchtermans, Smith & Vanderlinde, 2017) and (2) on the results from an international survey study (see Czerniawski, MacPhail & Guberman, 2017). This document will be published on the InFo-TED website and will be used for the further development of the next outputs in the context of the Erasmus + project: (1) 'Output 2: Structure of the European professional development programme and virtual learning platform' and (2) 'Output 4: Content of the virtual learning platform'. To put differently, the design principles described in this document are general in nature and will be translated and contextualised in the next phase of the project. Further, the document will be presented at the various multiplier events that InFo-TED will organise with different stakeholders.

### 2. *Teacher educators' professional development*

Research on teacher educators' professional development is still a relatively young field (Lunenberg et al., 2014). In this respect, the field is described as "under-researched (Livingston, 2014) with much of the current literature drawing on what is known about

teachers' professional development. Over the past two decades, however, researchers increasingly started to study the specific nature of teacher educators' work, and, correspondingly, started to develop thoughts on how teacher educators' professional development can be meaningfully conceptualised (e.g. Berry, 2016; Cochran-Smith, 2005, Kelchtermans, 2013; Smith, 2015; Tack, 2017; Vanassche, 2014). In common, authors often argue that the distinct nature of teacher educators' work as 'teachers of teachers' (Loughran, 2006; Murray & Male, 2005) should be the starting point in conceptualising teacher educators' professional development. In particular, studies about the teacher educator as 'second-order practitioner' (Murray, 2002) or 'teacher of teachers' (Loughran, 2006) have clarified that the work of teacher educators has to be distinguished from the work of teachers, and requests its own 'pedagogy of teacher education' (Loughran, 2006). Teacher educators distinguish themselves from teachers as they are practising 'second-order' teachers or 'teachers of teachers' (Murray & Male, 2005). This fundamental identity shift from the first-order context (of being a teacher) to the second-order context (of being a teacher educator) (Berry, 2016) requires teacher educators to generate a second level of thought about teaching, one that focuses not (only) on content, but also on how to teach (Loughran, 2011). This argument regarding why the 'how' of teaching is at least as important as the 'what' of teaching involves what Russell (1997) called 'How I teach IS the message'. As Russell (1997, p.55) explains, a fundamental aspect of teacher educators' teaching is the need to focus on 'the pedagogical turn' in teacher education, or 'realising that how we teach teachers may send much more influential messages than what we teach them'. To put differently, teacher educators' work as 'teachers of teachers' comprises a unique body of knowledge that requires them to move beyond seeing teaching as solely 'doing' and what has been learned in previous work experiences or study (Berry, 2007; Loughran, 2011). In addition to being a 'teacher of teachers', teacher educators have at least five other professional roles (Lunenberget al., 2014) or sub-identities (Vanassche et al., 2015): (1) researcher (see for instance, Loughran, 2014; Smith, 2015; Tack & Vanderlinde, 2014; 2016), (2) coach (see for instance, van Velzen & Volman, 2009), (3) gatekeeper (see for instance, Smith, 2010; Tillema & Smith, 2007), (4) broker (see for instance, Willegems, Consuegra, Struyven, & Engels, 2016), and (5) curriculum developer (see for instance, Lunenberg, 2002; Struyven & De Meyst, 2010). It is clear that teacher educators do not fulfil all these roles at one moment in their career; nor do these roles belong to specific career phases (Kelchtermans et al., 2017). Instead, they need to be perceived as sub-identities, related to the different contexts

teacher educators are working in and the different relationships teacher educators have (Beijaard, Meijer & Verloop, 2013; Meijer, 2013).

The next sections first focus on clarifying InFo-TED's views on teacher educators' professional development. Second, the results of a large-scale European survey study on higher education based European teacher educators' learning needs are presented.

### *2.1. InFo-TEDS' view on teacher educators' professional development*

Figure 1 *'The conceptual of teacher educators' professional development'* depicts InFo-TED's view on teacher educators' professional development. According to InFo-TED, the starting point of teacher educators' professional development has to be their practice (Kelchtermans, Smith & Vanderlinde, 2017) (see Figure 1). Starting from teacher educators' practice is also described as a 'practice-based approach' – instead of a 'blueprint approach' – to teacher educators' professional development (Kelchtermans et al., 2017). A practice-based approach starts from the assumption that acting teacher educators have good reasons for doing their job in the way there are doing it. This approach starts from a positive appreciation of the practice in which teacher educators 'enact' their professionalism. This is radically different from a deficit approach in which teacher educators' practices would be evaluated against the normative outline of the necessary competencies or evidence-based 'best practices' (see Kelchtermans et al., 2017). According to InFo-Ted, individual teacher educators cannot be compared with a norm, fixed standard or a list of competencies. The practice-based approach starts from the idea that a teacher educator's actual practices reveal 'who' a teacher educator is, and what s/he really stands for. Teacher educators' sense of professional self or identity needs to be seen as reflected in their actions. In other words, the teacher educator as such only 'emerges' in his/her practice (Kelchtermans, 2013). This implies that the professional actions and decisions of teacher educators are 'professional' messages (cfr. Russell, 1997, *'How I teach IS the message'*). These messages are reflections of teacher educators' professional stance, and likely include being critical and inquiry-oriented, self-regulated, contextually responsive and research-informed (see Kelchtermans et al., 2017) (see Figure 1).

The conceptual model (Figure 1) clearly considers the (different) contexts of teacher educators' work: teacher educators' enter the teacher education profession with different backgrounds (see Figure 1, 'the personal level'). Some have been working as classroom

teachers before, while others had a career as researchers with or without a PhD and others come from a variety of education-related roles. Clearly, these different entry pathways affect teacher educators understanding of their new role as well as the knowledge they bring to the job (Vanassche, 2014). The model not only considers the influence of teacher educators' former careers, but also considers their current work context. In this respect, teacher educators' work is embedded within the contexts of the local teacher education institution, and the regional and national policy contexts (Smith, 2015; Vanassche et al., 2015). The local level (see Figure 1) refers to, for instance, the culture of the teacher education institution, the existing teacher education programs, or teacher education curricula. This level also refers to relations with placement schools and other partnerships. The national level (see Figure 1) refers to national policy measurements, existing frameworks or standards for teacher educators. Finally, teacher educators' practices are situated in a global level, which stresses their relations with supranational and societal changes. These different levels (i.e. personal, local, national, global) are represented with concentric (grey) circles in which teacher educators' work (represented by the white circle) is embedded.

The InFo-TED conceptual model also contains two arrows (see Figure 1). The first arrow '*university-based and school-based teacher educators*' reminds us that an inclusive definition of teacher educators is used, encompassing a wide spectrum of positions in the educational system (see also, European Commission, 2013), from university-based to school-based teacher educators. This also implies that InFo-TED acknowledges the diversity in professional backgrounds of teacher educators. The second arrow from '*pre-initial to lifelong*' stresses the importance of thinking of teacher educators' practice as not only being situated in a spatial context (e.g. an organisation or institute), but always in a temporal context (Vanassche, 2014). In particular, the model recognizes that teacher educators enter the profession at different moments in their career, and as such, with different experiences and different learning needs (Vanassche, 2014). Similar to the influence of the organisational or institutional context, career stages or phases are not perceived as strict determinants of teacher educators' development. Rather, they are viewed as temporal elements of the context against which teacher educators give meaning to their experiences, feel particular needs for professional learning, and/or make sense of what is offered to them in professional development opportunities.

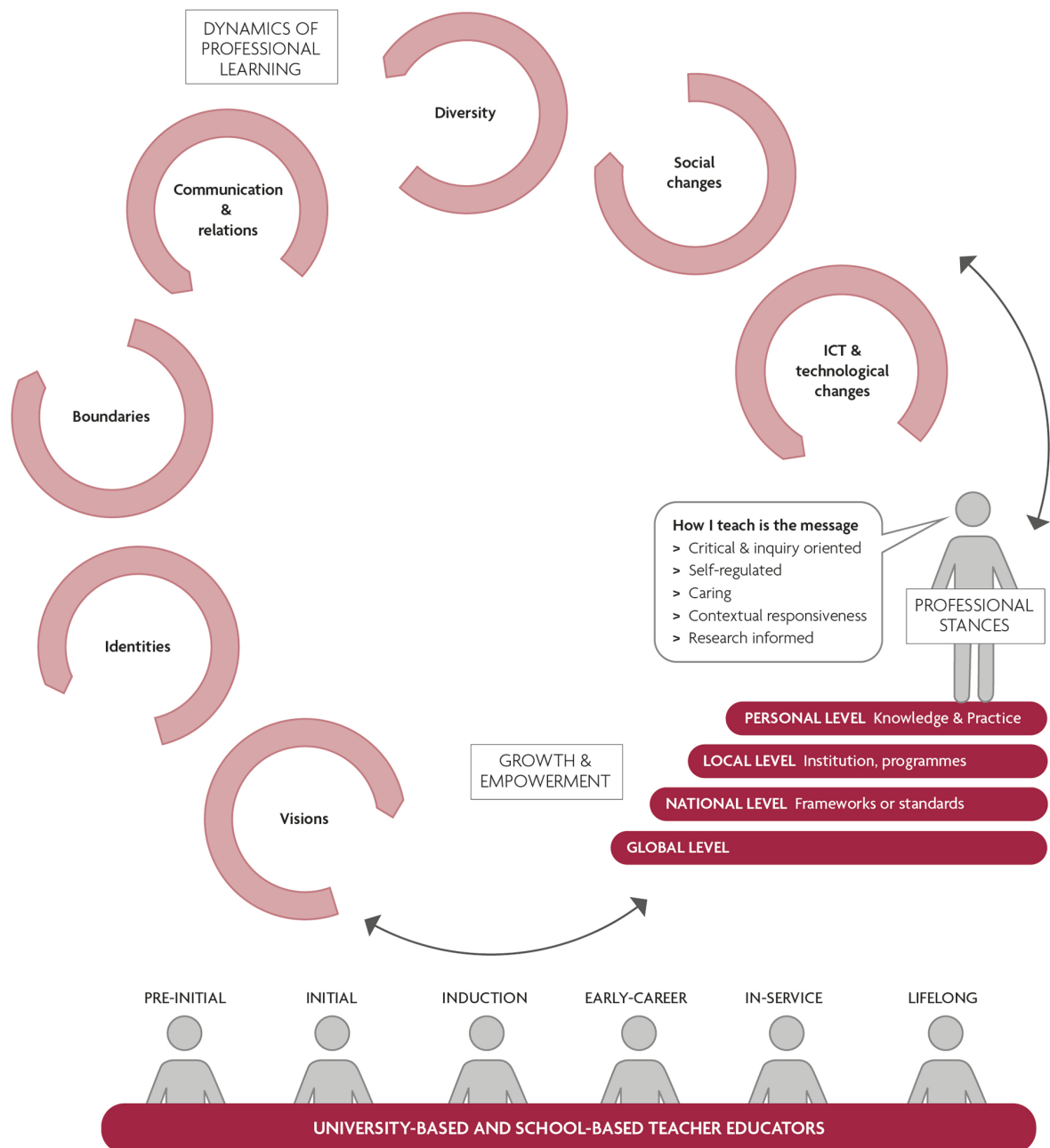


Figure 1. The InFo-TED conceptual model of teacher educator professional development (see also Kelchtermans, Smith, & Vanderlinde, 2017)

The left hand side of the model (see Figure 1) provides a non-exhaustive list of the content domains that InFo-TED believes ought to be included in opportunities for teacher educator professional development. These content domains are non-exhaustive given the ‘practice-based’ approach to teacher educators’ professional development. Put differently, the content domains or ‘dynamics of professional learning’ are illustrative, as making them exhaustive

would imply a choice for a 'blueprint' approach. These are left open to stress the fact that these should not be read as a list of "standards" defining a closed set of areas for professional development and required skills or behaviours in each. Rather, this is a partial list of areas that evolve over time: as some areas emerge, others may lose their importance or be conceived of in different manners. The areas for professional development can be influencing each other (for example: facing diversity and crossing boundaries may influence teacher educators' professional identities) (see Kelchtermans et al., 2017).

To sum up this section, the InFo-TED conceptual model on teacher educators' professional development provides a shared language that is essential for colleagues from different institutional and international borders to be able to engage in collaborative research, improvement of practice or discussions with policy makers. In the next section '*European teacher educators' learning needs*', the results of an international comparative need analysis of higher education-based teacher educators (see Czerniawski, MacPhail and Guberman, 2017) are presented.

## *2.2. European teacher educators' learning needs*

Based on the article '*The professional developmental needs of higher education-based teacher educators: An international comparative needs analysis*', written by Czerniawski and colleagues (2017) published in the European Journal of Teacher Education, a brief overview of higher education-based European teacher educators' learning needs is presented. In total, 1158 higher education-based teacher educators participated in the International Forum for Teacher Educator Development (InFo-TED) survey study. They work in Belgium (Flanders), Ireland, Israel, the Netherlands, Norway and the UK. In general, the findings suggest that while teacher educators are only moderately satisfied with their professional development experiences, a strong desire exists for further professional learning. Two types of teacher educators' professional learning needs emerge from the data. The first type of learning needs refers to activities that are inherently linked to the day-to-day tasks teacher educators need to fulfil (different for each teacher educator, depending on their work contexts). The second type of learning needs refers to learning how to progress with an academic career, with a strong focus on addressing research and writing skills. It is also clear that many teacher educators strive to improve their current strengths rather than seek further professional development in areas in which they have limited or no experience with. Next to the availability (or not of time), five areas of professional learning needs are emphasised

among the participants and discussed in more detail below: (1) research skills, (2) use of ICT/online learning/social media, (3) publish research and academic learning, (4) considering of pedagogical principles/delivery and (5) ways of learning.

#### *1) Availability (or not) of time*

Not surprisingly, time is consistently noted as one of the most important professional learning needs for teacher educators. The tasks frequently identified as requiring more time are related to engaging in scholarly activity such as reading research, conducting research, academic writing and thinking. Teacher educators suggest that institutions should provide a realistic time allocation to research-related activities as an incentive. Besides, teacher educators express a need to be provided with designated time slots for diverse types of professional development activities rather than just those related to research.

#### *2) Research skills*

A significant number of teacher educators commented on their need to develop their research skills in the areas of writing, research methodology and methods, research ethics and data analysis. Assistance is needed on how to conduct research and develop a research portfolio, how to engage in small-scale research, how to write for the 'right' journals, how to locate conferences and integrate research into their lectures, etc. Moreover, assistance is needed for those who wish to extend their research profile to international audiences as well as contribute to country-specific research exercise frameworks.

#### *3) Publish research/Academic learning*

The need to publish research and/or write for publication is noted at two distinct levels. One group of participants conveys the need to begin writing for publication, seeking direction on how to best develop ideas and subsequently transform ideas into a publication, as well as understanding more about the publication process. Another group appears to have some level of experience in publishing, expressing the need to increase their publication rate, develop a higher quality of publication and consider how to write for different audiences.

#### *4) Use of ICT/online learning/social media*

The third most frequent professional learning need focuses on how best to use digital technologies for enhanced teaching and learning in a bid 'to meet the 21st century needs'. Online learning and associated materials are mentioned, with an interest in teaching

platforms that integrate on-line materials into everyday teaching. Social networking and social media are also mentioned as forums through which teacher educators believe they can support teaching and student learning.

#### *5) Considering of pedagogical principles/delivery*

A clear impression was given that teacher educators clearly wish to learn ways in which to improve teaching and learning without compromising their responsibility for delivering all areas of the curriculum. Participants were explicit in their specific needs related to pedagogy and associated delivery. These needs include: up-skilling in new pedagogies associated with particular subject disciplines, developing more generic teaching and learning strategies, and consideration of classroom management. Overall, teacher educators are specifically interested in learning about current developments in teacher education.

#### *6) Ways of learning*

Teacher educators prefer learning with and from colleagues across the board. They view professional learning communities as the strongest contribution to the consolidation of the teacher education profession and its continued development. Within the realms of pedagogy, teacher educators seek opportunities to observe colleagues and have them observe and provide feedback to them as well as have time with colleagues to share experiences and develop ideas. Visits to other schools and teacher education institutions are also mentioned. As researchers and writers, teacher educators look for opportunities to collaborate with experienced colleagues either as personal mentors or leaders of research groups. The latter are portrayed as an opportunity to work on specific publications or research projects, and access colleagues across a range of institutions. Furthermore, there is a strong preference for professional learning opportunities that are continuous and adapted to individual needs and contexts in contrast to traditional courses and workshops.

The next section introduces InFo-TED design principles for (1) community learning in teacher educators' professional development (see 3.1.) and (2) how blended-learning can be implemented in teacher educators' professional development activities (see 3.2.)



### 3. *Design principles*

#### 3.1. *Design principles of community learning in teacher educators' professional development*

The core didactical focus of e-InFo-TED - in the Erasmus plus programme - is on exchanging practices among teacher educators in order to realise a network and communities of practice for teacher educators. As such, this category of design principles describes how workplace-related and personalised community learning (at the national and European level) can be realised in a blended-learning environment for teacher educators. Nine design principles are distinguished: (1) ownership of content and process, (2) work in professional learning communities, (3) knowing each other and sharing, (4) informal and formal learning at the workplace, (5) attention for teacher educators' multi-layered and multiple identities, (6) changing practices takes time, (7) take into account the pressures on teacher educators' time, (8) forming networks, and (9) striving for integration.

##### 1) *Ownership of content and process*

Based on the notion that professional development is more meaningful to professionals when they exercise ownership of its content and process (Borko, 2004; Loughran, 2014; Vanassche, 2014), professional learning activities should respond to teacher educators' self-identified needs and interests.

##### 2) *Work in professional learning communities*

Professional learning activities should be organised in professional learning communities in order to build on the qualities of the collaborative and collegial relationships in an active, meaningful and safe learning environment (Borko, 2004; Vanblaere, 2016). Professional learning communities are 'a group of people sharing and critically interrogating their practice in an on-going, reflective, collaborative, inclusive, research-oriented, growth-promoting way operating as a collective enterprise' (Stoll et al., 2006, p. 223)

##### 3) *Knowing each other and sharing*

'Knowing each other and sharing' focuses on the social aspect and the conditions under which people are willing to share and discuss. For a professional learning community to succeed, it is important that the participants trust each other. Learning collectively requires a considerate amount of vulnerability and openness. Professionalization and trust are positively related (e.g. Veldhuizen, Simons & Ritzen, 2011). Creating an open and safe

climate where participants can build relationships, and which respects individuality, honesty, openness and values is vital (Stoll et al., 2006; Verbiest et al., 2003). Rusman (2011) specifies 10 antecedents that are important when it comes to assessing trustworthiness: (1) 'communality' (have something in common), (2) 'responsibility', (3) 'skills', (4) 'sharing', (5) 'persistence', (6) 'caring', (7) 'discretion', (8) 'competence', (9) 'commitment', and (10) 'availability'. Skills, sharing, persistence, caring and discretion only influence trustworthiness after extensive collaboration. This means the activities in the summer academy and virtual learning environment should first focus on dialogue between people, start from sharing who you are and the context in which you work towards collaboratively developing professional learning communities (as teacher educators of teacher educators), coming to a shared knowledge base about teacher educators' teaching practice. Encouraging shared dialogue about the dialogue teacher educators have with their colleague teacher educators.

#### *4) Informal and formal learning at the workplace*

The learning opportunities to be found in both *formal learning* (as in structured programmes for induction or study for particular qualifications through set provision) and *informal learning opportunities*, often in and through personal practice in the workplace, also need to be considered. Drawing on situated learning theory (Lave and Wenger, 1991), past studies of teacher educator learning indicate how important informal learning in the workplace is (Murray & Male, 2005; Boyd et al., 2011). For such informal learning to occur, an 'expansive learning environment' (Fuller & Unwin, 2003) is required. Such an environment presents wide-ranging opportunities for learning in the workplace and a culture that promotes both individual and communal learning. Within such an approach, professional learning is viewed as an essential and integrated aspect of day-to-day work, rather than the achievements of short-term, easily measurable outcomes.

#### *5) Multi-layered and multiple identities*

The importance of the teacher educator as a role model for the next generation of teachers cannot be understated (Smith, 2003; Lunenberg et al., 2007). Until recently, however, a focus was lacking within higher education institutions on the identities and roles of teacher educators themselves. Several authors (see for instance Zeichner, 2009) argue that good teachers do not necessarily become effective teacher educators; they need appropriate training and induction into several roles specifically related to becoming a teacher educator. In this respect, teacher educators, are not only teachers of teachers; they also fulfil other

roles, such as curriculum developer, gatekeeper, broker, coach, and researcher (Lunenberg et al., 2014). These roles require specific attention (Lunenberg et al., 2014). Additionally, research of Swennen and colleagues (2010) identified teacher educators' sub-identities or different roles that are adopted at different times and in different combinations. They further argue that, in many cases, teacher educators have to transform themselves in order to take on certain identities, especially the researcher role.

#### *6) Changing practice takes time*

Another design principle is based upon the notion that changing practices takes time and demands extended and intensive programs (Desimone, 2009; Lawless and Pellegrino, 2009; Merchie et al., 2016). Therefore, professional learning activities should last long enough with sufficient autonomy and freedom for teacher educators to learn and reflect at a time of their convenience.

#### *7) Take into account the pressures on teacher educators' time*

Previous research indicating the pressures on teacher educators' time and opportunities to engage in research (Maguire, 2000; Sikes, 2006; Tack, 2017) suggests that professional learning activities should be structured enough. In particular, designated days for face-to-face meetings (cf. Summer Academy) should be identified and protected, and follow up activities should be planned.

#### *8) Forming networks*

Working in isolation seems to be one of the major challenges for teacher educators (Smith and Vattøy, 2018), especially when engaging in research activities. There is an increasing demand on cooperation across institutions and nations when applying for research grants, and mobility is a key word in numerous European policy documents. Today there are multiple possibilities for virtual networking; however, there is also a need to meet face to face to get to know each other. People need to get to know each other, to learn to trust each other and to plan new initiatives from ideas coming forth over lunch etc. There is a need to create physical meeting places and the InFo-TED summer academy lasting 5 days where European teacher educators meet, discuss, share ideas, become updated, and socialize will be an arena for establishing networks national and international networks.

### 9) *Striving for integration*

Teacher education curriculum is often criticized for being “fragmented”: In too many places teacher education curriculum is consisted of courses that are only loosely connected with each other, students are not exposed to the pedagogy they are called to embrace, and field experience is detached from relevant theories (Kitchen & Petrarca, 2016). The study of Czerniawski and colleagues (2017) reveals that teacher educators distinguish “academic” and “pedagogic” professional development needs. It is therefore suggested that the InFo-TED summer academy will build upon its diverse participants’ viewpoints, professional experience and professional development needs to create an integrated learning experience.

### 3.2. *Design principles of ICT-based teacher educators’ professional development*

This section ‘*Design principles of ICT-based teacher educators’ professional development*’ describes how blended-learning can be implemented in professional development activities for teacher educators. A blended-learning approach is necessary as teacher educators’ work in diverse professional contexts at local, national and European levels. The design principles also focus on the role of teacher educators and coaches/mentors of teacher educators in the blended-learning environment, and how web 2.0. applications can be implemented in such an environment. Three design principles are distinguished: (1) never an end in itself, (2) asynchronous group discussions with information resources, and (3) sharing.

#### 1) *Never an end in itself*

An ICT-based (online) environment supporting teacher educators’ professional development is never an end in itself (Kosnik, Beck, & Goodwin, 2016). Research (Kosnik, Beck, & Goodwin, 2016) shows that teachers and teacher educators ask for face-to-face contact in the context of professional development activities. The development of the virtual learning platform is thus merely supportive for the Summer Academy (European professional development programme). This means that the virtual learning platform has to be used before, during, and after the Summer Academy. Nevertheless, by using advanced ICT-based tools teacher educators may experience the advantages and contribution to learning and as a consequence be motivated to implement ICT-based tools in their own teaching.

#### 2) *Asynchronous group discussions with information resources*

Teacher educators need to be able to discuss their experiences in asynchronous discussions, similar as those described by Prestidge (2010). These asynchronous

discussions enable multiple users to engage in discussions with each other online, at their own time of convenience. This is similar to an email discussion, but unlike email, all contributors to the discussion are collected on a forum, which displays all the messages that have been posted. Discussions are organized in separate folders each dedicated to specific topics. Within a discussion group members contribute their comments by responding to the initial discussion question or to each other. These asynchronous discussions lead to both collegial and critical forms of discussion. Collegial discussion is important in developing and maintaining community, while critical discussion is vital for its role in transforming practitioners' beliefs (Prestidge, 2010). Moreover, the virtual learning platform should provide storage and access to relevant resources and research literature (wiki-environment). In this way, teacher educators are able to learn from each other's experience, but at a time and place that is chosen by them, which allows for greater flexibility (Murray, 2008; Tack, 2017).

### *3) Sharing*

As in InFo-TED the starting point for teacher educators' professional development lies in teacher educators' actual practices, an ICT-based learning environment should make it possible to share practices with each other. As said previously, sharing practices and being involved in professional learning community requires being vulnerable and trusting. With regard to online collaboration it is important to consider when this online collaboration takes place, before or after people may have met face to face. Which information has already been shared, or which information needs to be shared online before learning and working together can take place? Information on a person's competence, commitment and availability are considered important aspects to foster a sense of trust between participants, as well as communality and responsibility (Murray, 2008; Prestidge, 2010).

Summarised, and in line with the overall goal of InFo-TED – to promote, support and study teacher educators development, this output document describes underlying general design principles that will be used for the development of the European summer academy for teacher educators and the implementation of a virtual learning environment for teacher educators.

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