

# **A NATIONAL ICT COMPETENCY FRAMEWORK FOR STUDENT TEACHERS**

**“THE KNOWLEDGE BASE ICT”**

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<http://bit.ly/1qLWC9g>



# This contribution...

- The need for a competency framework ICT
- Methodology
- The themes of the framework
- Challenges and developments

# Kennisbasis ICT (ADEF, 2013)

- Description of competency indicators ICT for student teachers
- Student teachers who are competent to start
- It's part of the professional generic competency framework for student teachers

Core concept

Examples

Categorie/kernconcept	Omschrijving van de categorie	Voorbeelden
4.1 Het maken van didactische keuzes	4.1.1 De docent toont aan dat bij het ontwerpen van leerpraktijken met inzet van ICT leerdoelen, leerproces en toetsing op elkaar zijn afgestemd.	<ul style="list-style-type: none"><li>• In het lesplanformulier kunnen beargumenteren op welke wijze de inzet van ICT bijdraagt aan het behalen van leerdoelen</li></ul>
	4.1.2 De docent toont aan een relevante, rijke en effectieve leeromgeving te kunnen inrichten met ICT.	<ul style="list-style-type: none"><li>• Het inrichten van de digitale leeromgeving zodat het de leerlingen ondersteunt in het individueel werken of dat er effectief samengewerkt kan worden met andere leerlingen</li><li>• Het ontwerpen van een leerroute in de digitale leeromgeving waarin de leerlingen in een bepaalde volgorde de leerstof verwerken</li><li>• Het inzetten van een wiki waarin leerlingen medeverantwoordelijk zijn voor de inhoud van de leerstof en werkwijze</li></ul>
	4.1.3 De docent toont aan individuele leerprocessen en samenwerkend leren te kunnen aansturen en begeleiden met een effectieve inzet van ICT.	<ul style="list-style-type: none"><li>• Leerproces monitoren bij gebruik van tablets in de klas</li><li>• Bijsturen van forumdiscussies</li><li>• Begeleiden van zelf georganiseerd leren</li><li>• Verwachtingen managen ten aanzien van bereikbaarheid</li></ul>

Description core concepts:  
competency indicators

# Context (1)

- Demand for 21<sup>st</sup> century learning skills
- According to research ICT contributes to learning and instruction (Kennisset, 2013)
- This means that education has to develop meaningful learning relevant for society
- Need for proficient teachers who are able to use ICT in a meaningful way in an educational context



# Dutch context

- Need for systemic integration of ICT in teacher education, which is currently not the case
- Student teachers feel that they are not prepared well enough for the education of tomorrow in making use of ICT for instruction and learning (Hovius & van Kessel, 2013)
- Integration is rigid and complex (Drent, 2005; Kay, 2006; Tondeur et al, 2012)
- A framework for student teachers which may be assistive in designing and developing curricula to train student teachers in mastering new ICT knowledge and skills

# Goals (1)

- To provide a set of competencies and standards that will enable student teachers to become ICT proficient thus preparing them to meet the challenges of today's and tomorrow's knowledge-based society.
- To provide a national set of standards and competencies that can be used by teacher education institutions to design, develop and implement innovative curricula which embed ICT knowledge and skills.



## Goals (2)

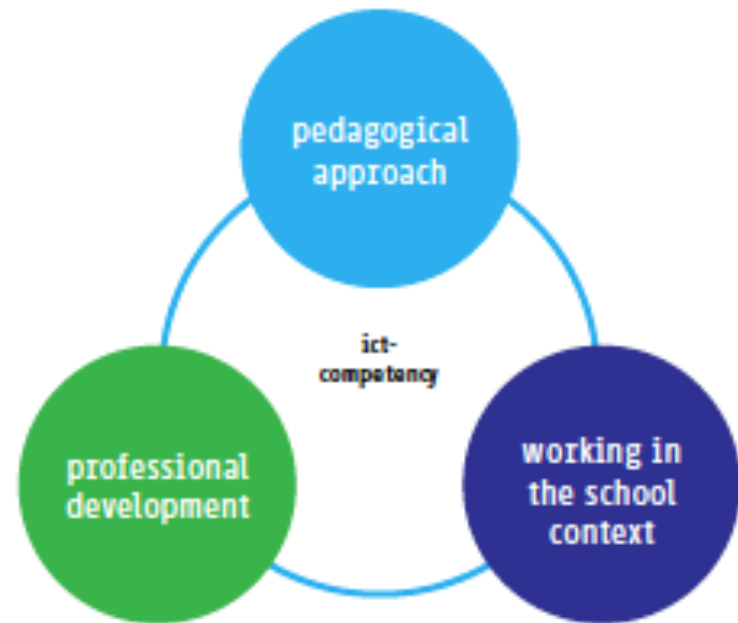
- To provide a National Framework for digital literacy that includes a progressive development of ICT knowledge and skills, skills for thinking about and using information in an accountable way, and skills needed for working responsibly and productively both as an individual as well as within groups.
- To implement and extend teachers' technology professionalization in order to improve teacher effectiveness in delivering 21st century instruction which lays the foundation of deep and continuous learning to cater to individual learning preferences.

# Methodology

- Design sessions
- Concept
- Validation by experts
- Adjustment
- Final version
- Developing research methodology for continuous adjustment of framework

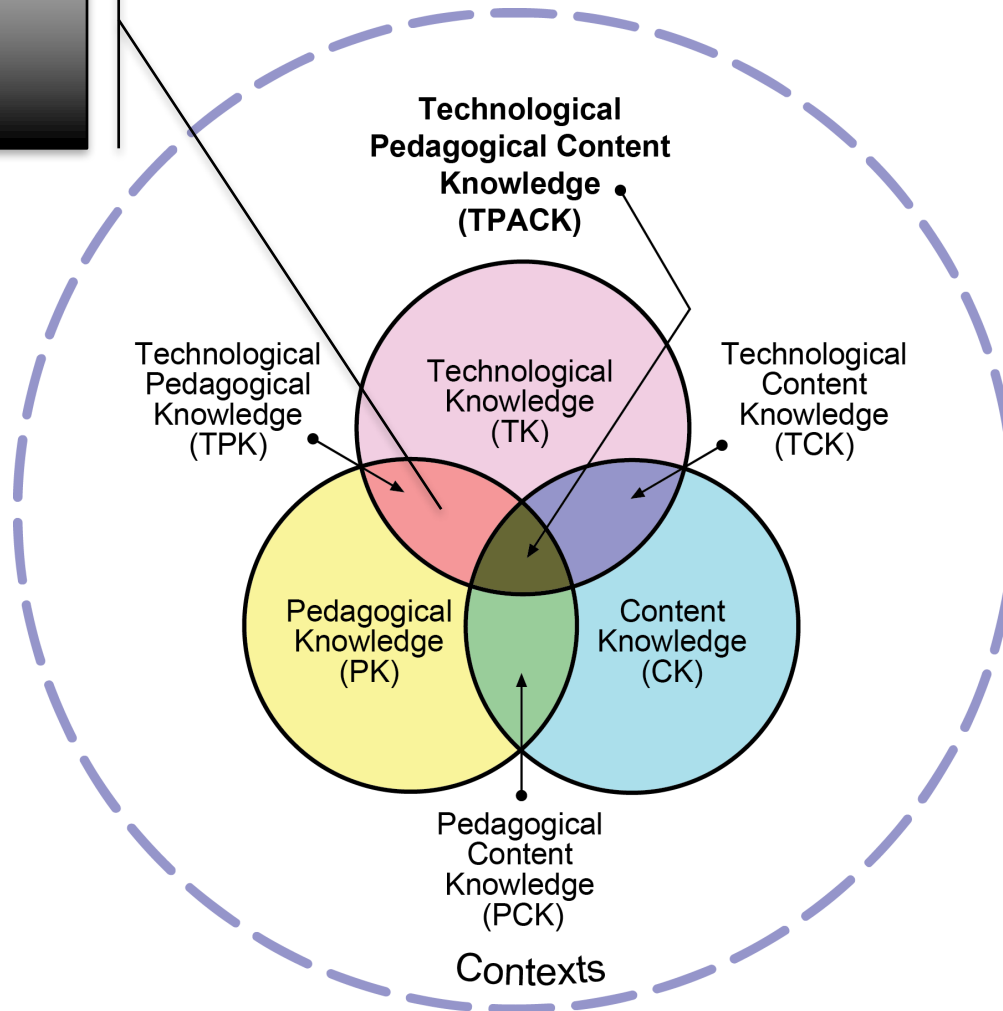
# Foundation

- [IT Competency framework for teachers \(Kennisnet, 2012\)](#)
- Knowledge base ICT version 1 (ADEF, 2009)
- TPACK



# TPACK

TK & TPK



# Theme 1 Attitude

- learning and innovative professional
- flexible and adaptive professional
- reflective professional
- collaborative professional

# Theme 2 Basic digital skills

- Basic digital skills are prerequisite for deliberate pedagogical use of ICT for learning, instruction and the organisation of education
- Increasing self-efficacy

# Theme 3 Digital literacy

- Information literacy
- Knowledge management
- Media wisdom

## Theme 4 Pedagogical knowledge and skills

- Designing meaningful learning activities requires sound choices to make
- The organization of ICT
- Designing and developing digital content for learning and instruction
- Knowledge transfer
- Knowledge construction
- Evaluation



# Challenges

- Framework is in phase 1 integration ICT in Dutch teacher education institutions
- Meaningful curriculum ICT targeted at student-centered competency development
- Assessment
- A vision of training competent teachers for the future
- What about teacher educators?

# Developments

- Assisting teacher education institutions with regard to the implementation of specific competency indicators
- Dissemination of knowledge between Dutch teacher education institutions
- Participating in national educational bodies regarding the ICT-competencies of teachers

# Thank you

- Paper of Dutch National Competency Framework ICT for student teachers
  - <http://bit.ly/1qLWC9g>
- Please join us in our full paper session on Friday, March 21 11:30 – 12:30 Grand Ballroom 3