



BULLETIN:
The way towards e-competency
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REACHING OUR GOALS TOGETHER

Nives Kreuh, MA

“It is not the strongest nor the smartest that survive but those best able to adapt.”

(C. Darwin)



The way towards e-competency for teachers, pre-school teachers, school principals and IT experts or ICT co-ordinators has been clearly delineated, so we can now examine it in more detail. This bulletin aims to:

- **explain the reasons behind our approach to e-competency,**
- **describe the process of establishing this approach, and**
- **define the assessment of competencies at seminars.**

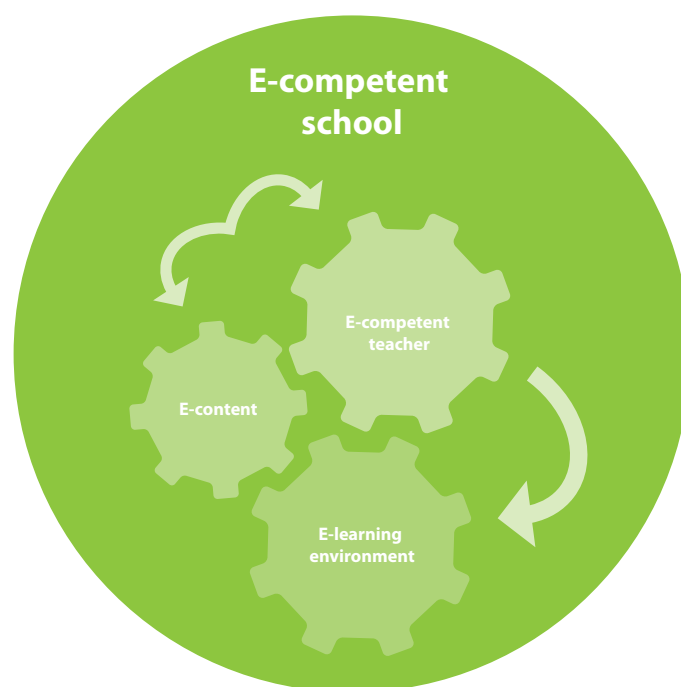
By presenting some examples that are part of our approach to e-competency, we would like to show you what the way towards e-competency entails. Since we take education/training to be one of the most significant elements in reaching the final goal of e-competent schools, we are also introducing the E-Card, which is presented in the following sections of the bulletin.

The project E-Education has about a year before its final evaluation. The findings will be used to further improve the proposed approach to e-competency. We will organize a final seminar for school principals and ICT co-ordinators which will sum up and direct the planning and activities of schools, kindergartens and student residences in the future. Another **challenge** that we face is how to organize and execute an independent assessment of competencies at seminars. We are also **updating** our consultancy services, so that they can best supplement the requirements of our way towards e-competency. Moreover, we are expanding and updating the SIO (Slovene Educational Network) web portal. A lot of attention is also paid to the training of our service providers – we will keep you posted on any new developments as they arise. This research and development project is making it possible for us to establish new foundations in teacher training and education, test the models that we create, and update them as necessary. The challenges of 21st century education are significant and only by adapting to the changes will we be able to **successfully support our children on their way to independence.**

How to build a 21st century school?

In light of the rapid development of digital technologies individuals require an increasing number of various skills, especially technical, cognitive and social skills, in order to perform tasks and solve problems in digital environments of their personal and professional lives (Eshet-Alkalai 2004). This also means more responsibility for teachers and other education professionals, since in the e-permeated world, **'those who can understand and comfortably use e-facilities are significantly advantaged, in terms of educational success, employment prospects and other aspects of life'** (Martin 2005).

European and other countries have expressed a commitment in their national strategies to ensure that the above competencies would be achieved and maintained through life-long education. Special emphasis in some of these strategies is placed on the requirement to improve the level of digital literacy as an important competency in today's society. In 2007, the government of the Republic of Slovenia approved the Strategy for Development of Information Society in the Republic of Slovenia – si2010, which defined the national framework for the development of information society in Slovenia. The strategy includes providing suitable equipment for schools, developing e-content and training education professionals (Kreuh and Brečko, 2011). The project E-Education is based on all of these aims because the only way to build a 21st century school that can be characterized as **e-competent** is to create an **e-learning environment**, to develop suitable **e-content**, and – most importantly – to educate **e-competent teachers** who can use this content in a suitable e-learning environment.



Picture 1: E-competent school

One of the main goals of the project E-Education is the development of **the standard E-Competent Teacher, School Principal and IT Expert**. The establishment of this standard means a realization of the national strategy of developing an efficient educational model for all education professionals, which leads us to the modern, 21st century teaching and leadership. A foundation for this is course syllabi that are based on lifelong competencies. One of these competencies is the development of learners' digital literacy. Schools are committed to using modern technology in their classrooms, but only by training all school employees can we also fulfil other requirements set forth in the syllabi. E-competent principals, teachers and IT experts are the most important factors in establishing e-competent schools.

E-competencies – why and how?

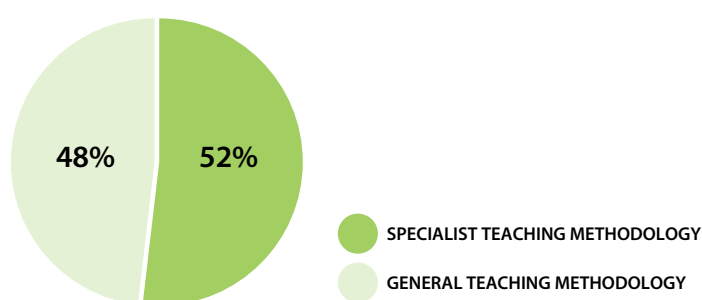
The standard **E-Competent Teacher, Principal and IT Expert** defines the key e-competencies that every **teacher, pre-school teacher** or teacher in a student residence needs in order to work with their students; every school principal or deputy school principal needs in order to **manage their school**; and every **IT expert or IT co-ordinator** needs in order to successfully collaborate in **planning school** work and classes by using ICT.

The standard stems from many years of work focused on the role of ICT in education. It takes into account the findings of numerous ICT studies conducted in Slovenia and abroad, the knowledge acquired in the many years of training education professionals, the development of e-materials, and the efforts of the state to provide suitable equipment for schools. In addition, in the process of devising the standard, a number of non-Slovene standards, licenses and strategies in the field of ICT were examined.

Since 1994, the project **Elimination of Computer Illiteracy** conducted by the Ministry of Education and Sport has provided all the equipment necessary for the inclusion of ICT in the regular activities of Slovene schools (for example, equipment to be used in classrooms and in school administration ...). Since 2006, these activities have been additionally supported by the funds provided by the European Social Fund. Also, at the National Education Institute, **e-development teams** have been developing ICT teaching methodology and training teachers, pre-school teachers and school principals. The number of ICT training seminars between the years 2004 and 2007 is presented in Table 1.

No. of seminars (2004 – 2007)	No. of seminars	No. of participants
Specialist teaching methodology	899	13615
General teaching methodology	817	12414
ALL	1716	26029

Table 1: The number of ICT seminars and the number of participants from 2004 to 2007.



Picture 2: The ratio between general and specialist ICT teaching methodology seminars from 2004 to 2007

Despite all the efforts, our studies show that **only about 30% of teachers** use ICT in their classrooms or while working with students. The project **E-education** aims to identify the reasons for this and, at the same time, to train teachers in a new way, hoping that the different approach, content and implementation will bring about noticeable changes in schools in kindergartens. The on-going evaluations will show how successful this approach is.

The way to the new standard is based on **6 key competencies** which define all the competencies and e-competencies that help teachers, pre-school teachers, principals and ICT co-ordinators achieve digital literacy. Of course, they are related to the requirements for digital literacy specified in the course syllabi. Teachers and pre-school teachers should be trained to carry out the aims specified in these documents. The training seminars are based on e-competencies and devised for 20 different subjects or subject areas.

Every education professional can:

- acquire **e-competencies as authentically as possible**: the content and examples of good practices are selected based on the subject or subject area relevant for the institution and thus directly transferable to practice;
- take part in “blended learning” (**live and on-line**) **seminars in e-classrooms**, which makes it possible for the participants to learn experientially and work on collaborative projects;
- undergo competencies **assessment in all seminars**.

In 2012 we will also introduce **independent competencies assessment**, which will enable the already skilled teachers, pre-school teachers, school principals and ICT co-ordinators to assess their **e-competencies** or skills independently, without taking part in training seminars. We also offer consultancy services which are intended to motivate education professionals to use ICT in their everyday work and to help them choose a suitable training seminar. Post-seminar consultancy can further develop and perfect the acquired competencies. Seminar participants can also collaborate in **e-communities** where they exchange their experiences and learn about new developments in teaching.

What is digital literacy?

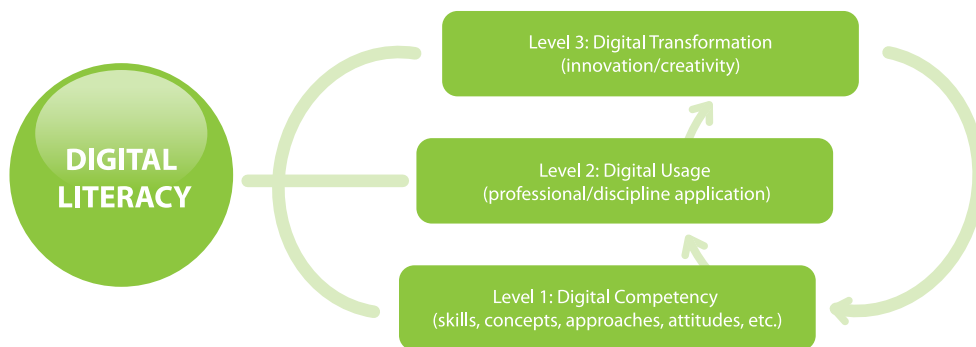
The term **digital literacy** has no clear and unambiguous definition. With the rapid development of modern technology, our understanding of digital literacy is continually changing. In various European documents and professional literature in the field of education, the term **digital competency** is commonly found (both competency and competence are used in English, cf. Smith 2005). In the Official Journal of the European Union (2004), digital competency is described as one of the eight domains of key competencies and defined as the confident and critical use of Information Society Technologies for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet.

The phrase digital literacy is another problematic term when compared with the expressions such as ICT, information, media or visual literacy. Martin and Grudziecki (2006) describe in their report for the European Commission several types of literacy: computer or ICT literacy from the 1960s, technological literacy from the 1970s and information literacy from the 1980s. These were followed by media literacy, visual literacy and communication literacy, the definitions of which overlap considerably. Martin and Grudziecki thus introduce the term **digital literacy**, which has a broader meaning and **includes all other literacies**.

»Digital Literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process.« (Martin and Grudziecki 2006, 135)

Three levels are proposed for digital literacy development, the level of digital competency being the first (Martin and Grudziecki 2006, 255) (Picture 3). The term **digital literacy** is thus the broader one in spite of the term digital competency being described as a key part or even a condition for digital literacy (Official Journal of the European Union 2004). **Digital literacy involves the successful usage of digital competency within life situations** (ibid. 2006, 256).





Picture 3: Levels of digital literacy (Martin and Grudziecki 2006, 255)

Digital transformation

Following the needs of today's society and the development and needs of learners, the project E-Education defines and describes the digital competencies or e-competencies that represent the basic level of digital literacy. They refer to teachers, pre-school teachers, ICT co-ordinators, school principals and deputy school principals.

Our **seminars** mostly focus on the first **level of digital literacy** since they support the development of digital competencies. Partly, the **second level** is also included because the blended learning seminars enable participants to put into practice the knowledge they gain on various strategies, approaches, content and materials. By doing so, they apply the acquired competencies to their professional field. However, it depends on each individual to what extent they use the new approaches in their work after the training, and only **eventually (probably after years of work)** can they reach the third level, i.e. the level of digital transformation that includes innovation and creativity in the use of ICT.

We should keep in mind that the above is a process and that we should – even as skilled users of various digital tools – constantly update our knowledge and competencies in the spirit of lifelong learning. This is why we see a lot of added value in our **methodological consultancy**, which helps expand and upgrade our knowledge about the use of ICT in our professional lives.

Personal training plan

The focus of the seminars on **one key e-competency** allows teachers, pre-school teachers and school principals to plan their way towards e-competency. Each individual should therefore prepare a personal training plan prior to the training. One of the tasks **in the entrance seminar Collaboration in the On-line Learning Environment** focuses on this.

Teachers should use the **Slovene Educational Network** web portal to choose suitable seminars from the Seminar Catalogue. Their search can be based on the subject area (for example, languages, physics, kindergartens, school principals ...) or on the main e-competency developed by the seminar. For every seminar there is a description of content and aims, so the potential participants can also consider the subject matter they might be interested in. Personal training plans should be part of **Institutional Informatization Plans**, which are prepared by educational institutions and are consequently part of their **E-Card**.

6 key e-competencies

The concept of reaching e-competency is defined in the document *The Guidelines of the Standard E-Competent Teacher, School Principal, IT Expert* (Kreuh and Brečko 2011) and based on the implementation of six key e-competencies. These are presented in Picture 4 and described in the following sections.



Picture 4: Key e-competencies

C1 – Knowledge and awareness of ICT, critical use

A teacher/principal has good knowledge of hardware and software and can skilfully use it at work. They can critically assess its didactic value and, by sensibly including it in their work, provide their students with adequate support in their acquisition of new skills and competencies. A principal is familiar with IT supported school leadership and uses it sensibly.

**C2 – Communication and on-line collaboration**

A teacher/principal uses appropriate technology and virtual environments to communicate and participate in collaborative networks that serve as support for the acquisition of new knowledge and understanding concepts. By using technology and virtual environments, they conduct project work with their students. At the same time they establish communication and collaboration among students, parents and the wider community (including the international one) in order to encourage active and independent learning. They help students to collaborate and solve problems, conduct research and create. They encourage the formation of on-line communities – study circles.

**C3 – Search, select, process, and evaluate data, information and concepts**

A teacher/principal knows and uses the world-wide web as a source of data, information and concepts, and includes these in their classes to acquire new skills or competencies in the form of project work, problem-oriented classes and so on. In doing this, they help students to acquire the competency to search, collect, analyse, use and evaluate the information they gather. With the help of these competencies, they influence the cognitive development of learners and their ability to process information, solve problems, collaborate and develop critical thinking.

**C4 – Safe use of the web, ethical and legal use of information**

A teacher/principal is aware of the dangers and the possible abuse of children and youngsters who use on-line or mobile technologies. They can recognize the areas in schools and the environment that require their attention in order to ensure safety on the web. They know how to increase student awareness of data protection.

**C5 – Design, produce, publish, adapt materials**

A teacher/principal can produce, design and adapt e-materials and activities which enable their students or other participants in the educational process to participate in collaborative (on-line) projects, solve problems, research and create. They can help students create multimedia messages and publish these messages within their project as a means of notification and communication.

**C6 – Plan, perform, evaluate learning and teaching by using ICT**

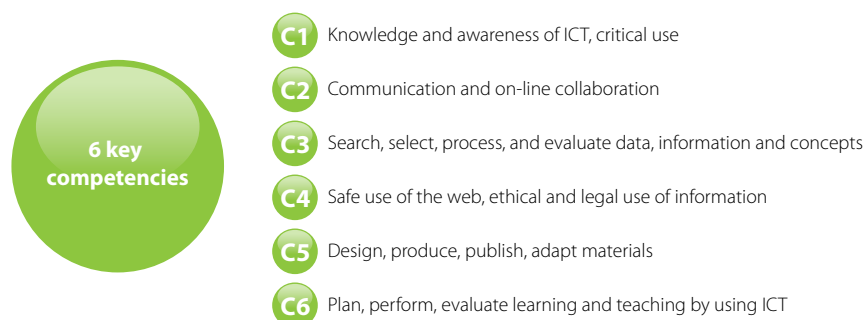
A teacher/principal uses ICT sources to improve themselves professionally and pedagogically, to plan ICT supported courses, to develop (in co-operation with their students) strategies for self-assessment of skills and competencies, to follow their own progress, to evaluate skills and competencies, and to reflect on their acquisition of skills and competencies. They help their students to set and use the criteria for the assessment of skills and competencies, which students can refer to when assessing their understanding of key concepts, competencies and processes.

ON THE WAY TOWARDS E-COMPETENT SCHOOLS THROUGH SEMINARS

Nives Kreuh, MA, Amela Sambolić Beganović, Metka Košir

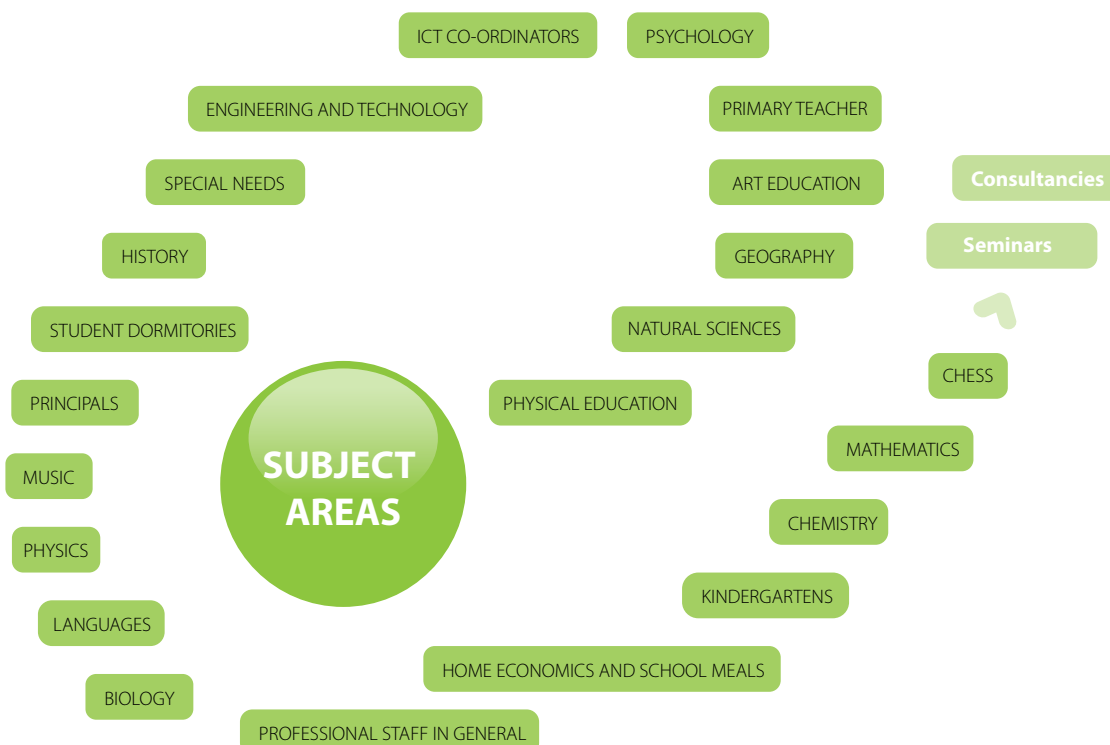
One seminar, one key competency

Our way towards e-competency is based on seminars that follow the principle 'one seminar, one key competency'. Each seminar focuses on developing one of the six key competencies. The key competencies are marked with numbers 1 to 6 (Picture 5).



Picture 5: Key e-competencies marked from C1 to C6

The seminars for teachers, principals and IT experts or ICT co-ordinators are devised by teachers, members of various subject groups or subject area groups, and aimed at various target groups in education. Picture 6 presents the current seminar programmes for various target groups of education professionals.



Picture 6: Seminars targeted at professionals in education

On their way towards e-competency, the above seminars will help every teacher, principal, IT expert or ICT co-ordinator to develop the six key competencies and achieve digital literacy.

Precondition: basic ICT skills

A precondition for achieving digital literacy and being on your way towards e-competency is **basic ICT skills**. They encompass six areas that include working with texts, spreadsheets and presentations, the use of the web and e-mail, as well as the use of the necessary hardware and software. By responding to our questionnaire, teachers, principals, IT experts or ICT co-ordinators can conduct a **self-assessment** of their basic ICT skills (Picture 7).

Self-assessment

1 Basic use of word-processing programs

I can	YES	NO
Create, edit, format and save a document		
Move a document to a folder, find and print a document		
Add (to a document):		
a picture		
a table		
a header/footer		
a page number		
a hyperlink		
Set the proofing language/spell-check the text		
Create a table of contents		
Add and accept/reject a comment/correction		

2 Basic use of spreadsheet programs

I can	YES	NO
Create, edit, format and save a document		
Print the document in various views		
Add (to a document):		
a quick formula		
a formula		
a graph		
a page number		
a hyperlink		
Set the proofing language/spell-check the text		
Link the word-processing and the spreadsheet programs		

3 Basic use of presentation programs

I can	YES	NO
Create, edit, format and save a document		
Print the document in various layouts		
Add (to a document):		
a slide		
a picture		
audio		
video		
a table		
a header/footer		
a hyperlink		
an animation		
Convert a static slide to a dynamic one		
Create a custom projection		
Change the master slide		

4 Basic use of the web

I can	YES	NO
Use web browsers		
Find my way around web pages		
Find useful web pages		
Save a web page as a 'favourite'		
Use a hyperlink		
Download a document from a web page		

5 Basic use of e-mail

I can	YES	NO
Send, receive and forward my e-mail		
Work with attachments and folders		
Create a list of contacts and a mailing list		
Send a (hidden) copy to other addressees		
Create spam filters		

6 Basic use of hardware

I can	YES	NO
Use:		
Printers		
Scanners		
Voice recorders		
Digital (video) cameras		
Digital camera		
USB sticks		
CD/DVD drives and media		
Whiteboards (interactive boards)		

Picture 7: A part of the self-assessment scale for basic ICT knowledge and skills

At the moment we are also developing **an on-line self-assessment of basic ICT skills**, which will include on-line tasks that will allow individuals to independently identify the level of their ICT skills. Those with sufficient knowledge and skills will be able to proceed to seminars. Of course, this does not mean that all skills listed above are a requirement. Each individual should be able to judge for themselves what level of such skills their work requires. For example, some may not be familiar with spreadsheets since they do not use them at work.

Entrance seminar for teachers and pre-school teachers

The seminar **Collaboration in the On-line Learning Environment** is an entrance seminar targeted at teachers and pre-school teachers who want to achieve the standard E-Competent Teacher. The aim of the seminar is to develop the competencies required for active on-line collaboration and to prepare the participants for other E-Education seminars. The activities of seminar participants are focused on communication and distance collaboration, as well as on getting to know the basics of ethical communication in the on-line learning environment. Taking part in the seminar should encourage teachers to continue using ICT in their classrooms, to transfer their educational activities into on-line learning environments (when this is methodologically justified), and to participate in other seminars within the project.

At the seminar the participants respond to a questionnaire that assesses their ICT knowledge and skills. They use the results of this assessment to plan the training that they need to reach the standard E-Competent Teacher. They familiarize themselves with the learning environment and discover its ability to develop and promote critical thinking, argumentation, planning, monitoring, evaluation and collaboration. As participants and moderators they experience and develop the possibilities of using on-line forums, edit shared documents, think about the role of technology and on-line learning environments in the educational process, and become aware of the importance of personal data safety in the virtual world. In doing so, they rely on their experiences and the suggested materials. The seminar lasts 16 hours. To fulfil the aims of the seminar, the participants are given nine tasks, five of which are completed at two live meetings and the remaining four on-line.

Entrance seminar - Collaboration in the On-line Learning Environment

Live and on-line collaborative work

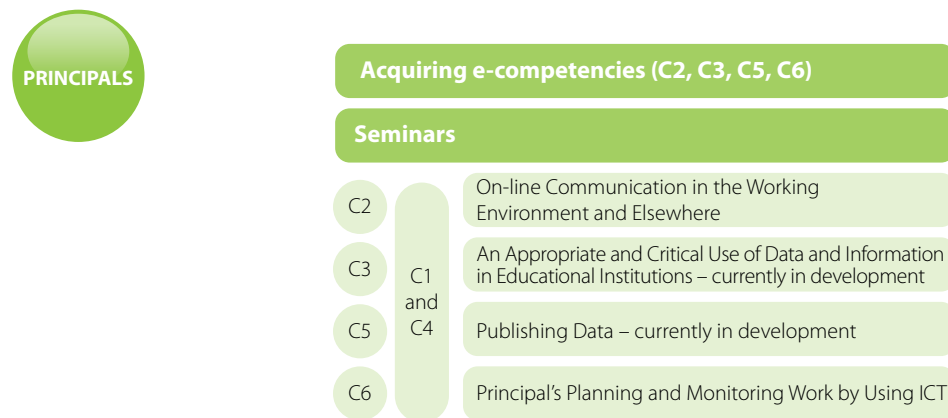
Co-operation and forum moderation

The way from C1 to C6

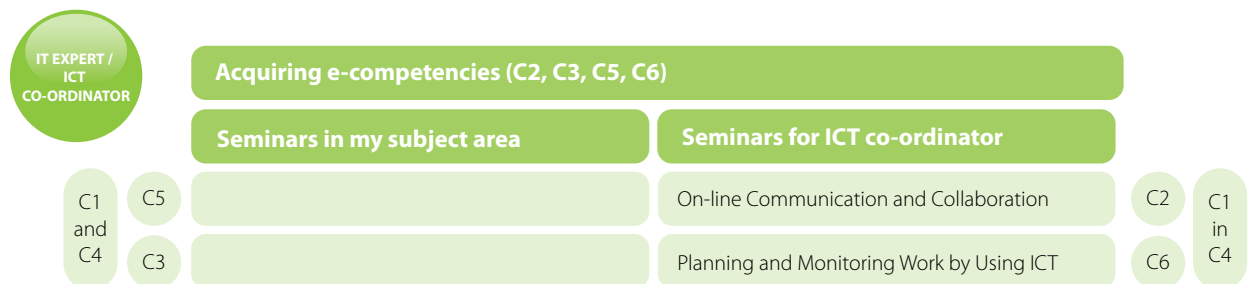
Pictures 8, 9 and 10 show the way a teacher, a principal and an IT expert or an ICT co-ordinator can reach e-competency. The continuation includes more detailed descriptions for each of them.



Picture 8: A diagram presenting the way to become an e-competent teacher



Picture 9: A diagram presenting the way to become an e-competent principal



Picture 10: A diagram presenting the way to become an e-competent IT expert or ICT co-ordinator

A teacher on the way towards e-competency

The first step on the way towards a teacher's e-competency is the entrance seminar **Collaboration in the On-line Learning Environment**. The aim of the seminar is to establish both live and distance collaboration. By using a wide range of tasks, teachers collaborate, communicate and learn about personal data safety in the virtual environment.

In their second step on the way towards e-competency, teachers select and complete at least four seminars. They have to take into consideration that the seminars should be chosen so that they include the first, second, third and the fifth competencies. Teachers can select the seminars from the catalogue available on the web portal www.sio.si. The following options are available:

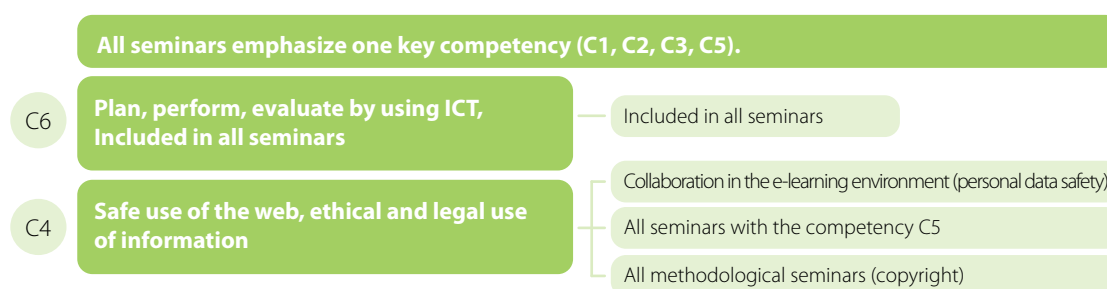
- seminars in their own subject area,
- seminars from other subject areas (for example, a language teacher can choose a seminar primarily meant for primary teachers or art education teachers),
- seminars for professional staff in general.

The range of seminars is such that it allows, for example, a secondary school specialist subject teacher to reach the standard despite there being no seminars focusing on their specific area.

Choosing seminars that focus on other subject areas provides possibilities for **interdisciplinary collaboration** and opportunities for the participants to learn from each other even though/because they specialise in different subject areas. The seminars selected by teachers on their way towards e-competency target four key competencies that are marked as C1, C2, C3 and C5 (Picture 5).

The catalogue on the web portal www.sio.si allows teachers to search for seminars based on **key competencies** or based on **subject areas**, making it possible for them to easily create their personal training plans.

Competencies C4 and C6 are included in all seminars (Picture 11).



Picture 11: The concept of including competencies C4 and C6 in the seminars



Competency C4 - Safe use of the web, ethical and legal use of information

Achieving this competency is strategically included in the aims and tasks of all seminars.

1. In the entrance seminar Collaboration in the On-line Learning Environment, it is represented by the task on personal data protection.
2. In all seminars where Competency 5 is the key competency, it is represented by the task on netiquette.
3. In all other seminars with the key competencies C1, C2 and C3, it is represented by tasks that include the theme of copyright. The following content is included:
 - authentication,
 - copyright issues,
 - citing sources,
 - using various sources, and/or
 - marking copyrighted material with the CC license.



Competency C6 - Plan, perform, evaluate by using ICT

The competency to plan, perform and evaluate by using ICT is included in all currently conducted seminars, no matter what subject area they belong to. They require the teachers to plan, perform and evaluate lessons based on ICT. This is done as follows.

1. During the first part of the seminar, which is usually conducted live, the participants acquire new knowledge and skills in using ICT in their teaching or other work.
2. In the second part of the seminar, which is conducted online, the participants test their new knowledge and skills in class or in their other work and evaluate them.
3. In the final part of the seminar, the participants meet in person and present and exchange their experiences, new ideas and methodological approaches that include the use of ICT and evaluate them.

After successfully completing the seminars that they select on their way towards e-competency and after acquiring the competencies C1, C2, C3 and C5, teachers automatically acquire the competency C4 (Safe use of the web, ethical and legal use of information) and the competency C6 (Plan, perform, evaluate learning and teaching by using ICT).

A principal and an IT expert or ICT co-ordinator on their way towards e-competency

In this section, a training strategy similar to the one for teachers is presented for principals and IT experts or ICT co-ordinators.

A principal on their way towards e-competency completes four seminars targeted at principals. Every seminar has a key competency: the seminar On-line Communication in the Working Environment and Elsewhere focuses mainly on the competency C2, the seminar An Appropriate and Critical Use of Data and Information in Educational Institutions on C3, the seminar Publishing Data on C5, and the seminar Principal's Planning and Monitoring Work by Using ICT on C6 (Picture 9).

To fulfil the aims of these seminars and to acquire new knowledge, **consultancy** is also available. By working on seminar tasks, principals identify the skills that they require to run their institutions and choose the type of consultancy that best fits their needs. Such consultancy is conducted in small groups and focused on principals' work.

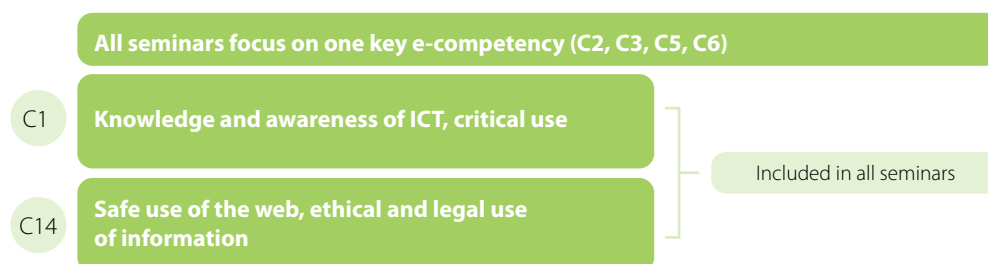
It is very important that principals on their way towards e-competency establish **mutual co-operation**, which takes place during live and distance seminars as well in the form of communication and exchange of good leadership practices among educational institutions.

An IT expert or ICT co-ordinator on their way towards e-competency completes two compulsory seminars for ICT collaboration and at least two seminars that they select depending on the subject they teach. The two compulsory ICT collaboration seminars focus on the key competencies K2 and K6, while the seminars emphasizing the competencies K5 and K3 can be selected freely (Picture 10).

IT experts or ICT co-ordinators follow the goal of acquiring the skills that will make it possible for them to support the ICT needs of the professionals at their institutions. They will co-operate:

- with teachers to plan ICT supported lessons,
- with principals to plan the work at their institution and introduce changes.

The competencies C1 (Knowledge and awareness of ICT, critical use) and C4 (Safe use of the web, ethical and legal use of information) are included in all seminars for principals and IT experts (Picture 12).



Picture 12: The concept of including the competencies C1 and C4 in all seminars

As the nature of their work requires a number of technical skills, IT experts and ICT co-ordinators will be offered additional training in this field as well.

We are also planning to introduce an **exit seminar for principals** and **ICT co-ordinators**, as there is no entrance seminar offered for these two groups at the moment.

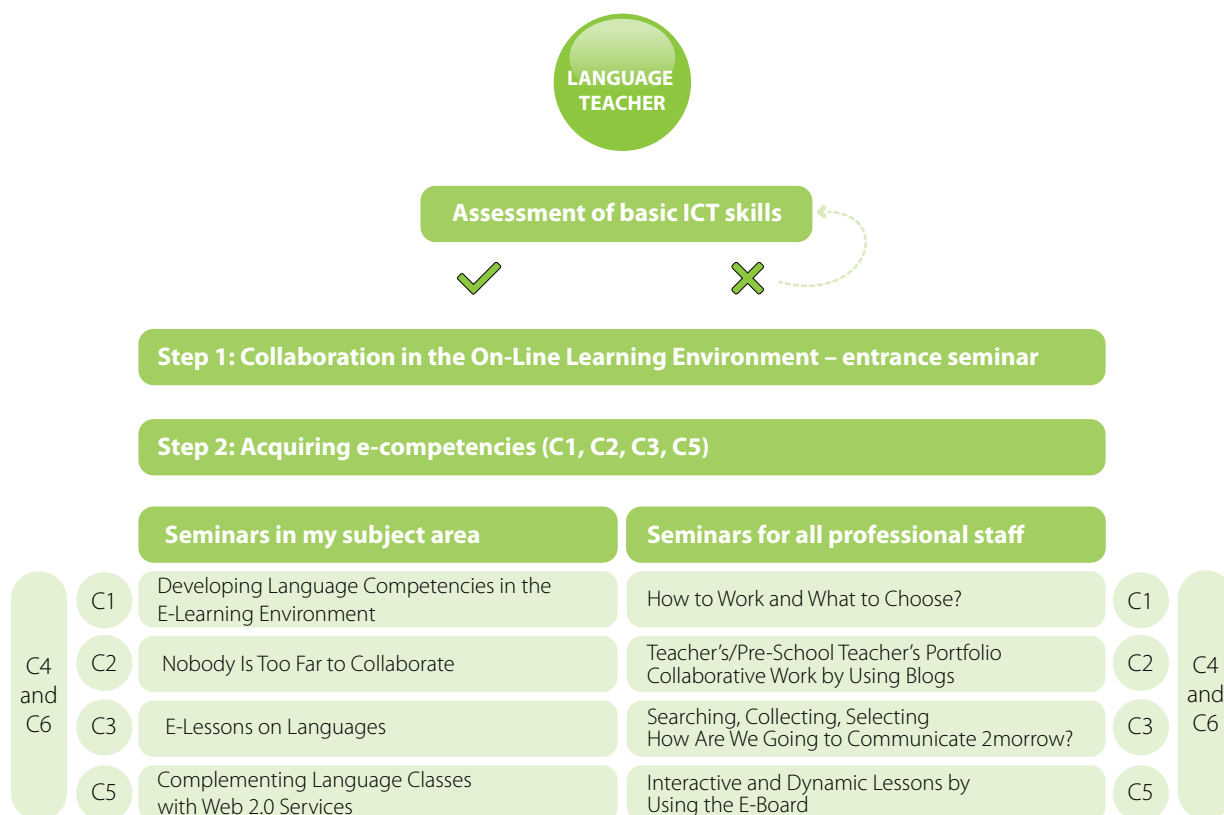
The way towards e-competency presented on the example of the subject area Languages

Metka Košir, Liljana Kač, MA

A language teacher, whether they are a mother-tongue or a foreign-language teacher, completes the entrance seminar and then selects other seminars related to their subject or other subject areas.

- If they decide on the first option, they can choose among four seminars in their subject area: E-Lessons on Languages (C3), Nobody Is Too Far to Collaborate (C2), Developing Language Competencies in the E-Learning Environment (C1), and Complementing Language Classes with Web 2.0 Services (C5). When they successfully complete these four seminars, they acquire the six key competencies since the competencies C2 and C6 are already an integral part of these seminars.
- A language teacher can also decide to take part in seminars from other subject areas. For example, they might select seminars prepared for professional staff in general or those from subject areas such as art education, geography and others.
- The third option for a language teacher on their way towards e-competency is a combination of language-related seminars and seminars in other subject areas. For example, they can select two seminars on their own subject and two seminars from other subject areas.
- A fourth option (which is not necessarily the last one remaining) is self-assessment.

Picture 13 presents the various options language teachers have on their way towards e-competency.



Picture 13: A language teacher on their way towards e-competency

Everyone finds their own way

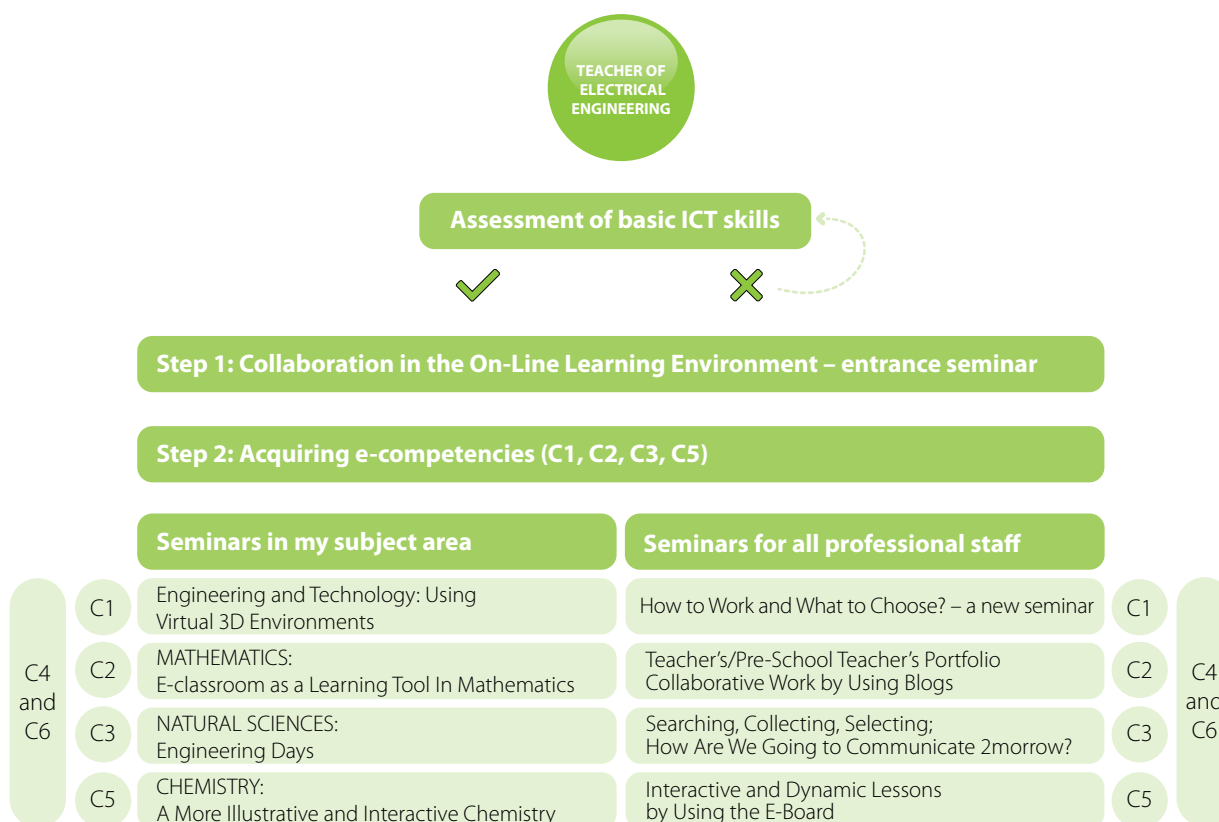
Tanja Rupnik Vec, PhD, Breda Gruden, Amela Sambolić Beganović, Metka Košir

If a teacher teaches **a subject for which there is no seminar** in the Seminar Catalogue, they should consider the seminars prepared for professional staff and the seminars from related subject areas. Their basic guideline should be **the model of six competencies**. They should **pay attention** to:

- The key competency of the seminar,
- The key competencies of their own subject area, and
- The aims of the seminar they select.

In the entrance seminar Collaboration in the On-line Learning Environment, participants acquire the competencies of collaborative distance work, collaboration, and moderation of forums, which prepares them to work in the on-line learning environment used in other seminars.

In the continuation, we present an example of planning a way towards becoming an e-competent teacher. The example below presents the options for a teacher of electrical engineering, for whom there are no seminars in their own subject area.



Picture 14: An electrical engineering teacher on their way to e-competency.

How do we assess competencies at seminars?

Metka Košir, Anita Poberžnik

In 2011 all E-Education seminars were updated to include the assessment of competencies. The requirements for the seminars are as follows.

- The aims should be clearly defined and the instructions clear and unambiguous.
- The e-classrooms should present the assessment criteria, clearly defined descriptors and rating scales.
- The tasks in the e-classrooms should be presented in a manner that clearly reflects the structure of the seminar.
- The passing mark – the number of points required to complete the seminar – should be clearly defined.

Most of the authors of our seminars have prepared self-assessment forms that enable the participants to independently and continuously evaluate their progress. They can compare the number of points they award themselves to the number of points they are awarded by their trainer.

Criteria for presenting a course supported by e-learning environment	
4-5 points	The e-learning supported course is presented well. The use of the e-learning environment is shown and documented (audio or video files, photos).
1-3 points	The e-learning supported course is presented incompletely/inappropriately. The use of the e-learning environment is not documented (there are no audio or video files, no photos).
0 points	The participant has not presented their course and has not documented the use of e-learning in their course.

Picture 15: Assessment criteria and points

Task	Activity	Points	MY POINTS
Task 1	Planning educational activities – role play	2	
	Selecting a group	1	
Task 2	Planning lesson observations	5	
Task 3	Choosing the date of the final meeting	1	
Task 4	Evaluation questionnaire	2	
Task 5	Planning with calendars – forum	2	
	Planning of activities	5	
Task 6	Planning evaluations	4	
Task 7	Personal professional development – CV	2	
	Commenting in the forum	2	
Presentation	Presentation of products	2	
	Reflecting on the seminar	2	
ALL		30	

I have successfully completed the seminar by earning _____ points, which is more than the required 16 points. I have taken part in both live meetings.

Picture 16: Self-assessment form

Independent assessment of competencies

Metka Košir, Amela Sambolić Beganović

We are developing ways to independently assess competencies, so that the skilled self-learners will be able to evaluate their competencies and attest some of their e-competencies without taking part in the seminars. This means that they will achieve e-competency on their own, using distance learning. Independent assessment will be regarded as equal to assessment at seminars. However, since one of the basic requirements of the standard E-Competent Teacher is collaborative work, this type of assessment will not be available at any time, neither will it be completely independent. Candidates wishing to prove their competency in this way will be placed in groups to collaborate by following the instructions of the group administrator.

E-CARD

Breda Gruden, Bernarda Trstenjak

The E-Education project leads teachers, principals and IT experts on their way towards e-competency. Each individual is required to take part in training and acquire six key competencies that represent the framework of digital literacy. The main aim of the training is for professionals in educational institutions to appropriately use modern technologies in their work.

To monitor their way towards e-competency, teachers, principals and IT experts will be issued **E-Cards**. The E-Card will enable them to systematically follow the progress they make while attending the training seminars focusing on the six competencies. The E-Education project will also offer the option of self-assessment, which will allow individuals to complete tasks in the e-learning environment and acquire appropriate skills and competencies without taking part in live seminars.

There are different ways for teachers, principals and IT experts to achieve e-competency, which is why the E-Card specifies each of the six competencies separately. Some of the competencies are included in more than one seminar and they are acquired only when all the planned seminars are completed or when individuals prove themselves through independent assessment of competencies.

When the six competencies are acquired, **the way towards becoming an e-competent teacher, principal and IT expert in the project E-Education is complete.**

E-Card (NAME AND SURNAME)

I would like to become:

- An e-competent teacher
- An e-competent IT expert of ICT co-ordinator
- An e-competent principal

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E-competent IT expert or ICT co-ordinator

Competency	Seminar	Trainer / Participant	Date of Participation	Date of Assessment	
C1	(competency included in other seminars)				
C2					
C3					
C4	(competency included in other seminars)				
C5	On-line Communication and Collaboration	Participant	08/12/2011		✓
C6	Planning and Monitoring work by Using ICT	Participant	21/03/2011		✓

E-competent principal

Competency	Seminar	Trainer / Participant	Date of Participation	Date of Assessment	
C1	(competency included in other seminars)				
C2	On-line Communication in the Working Environment and Elsewhere	Participant	01/02/2011		✓
C3					
C4	(competency included in other seminars)				
C5					
C6	Principal's Planning and Monitoring Work by Using ICT	Participant	09/12/2011		✓

Role in the project:

- Consultant to school leadership
- Subject area leader
- Subject area member
- Service provider
- Technical support

Trained service provider

Type	Seminars/consultancy	Date
Seminar	Collaboration in the On-line Learning Environment'	03/10/2012
Seminar	Nobody Is Too Far to Collaborate	12/11/2012
Consultancy	Let's Become Interactive on E-Board in Four Hours for Languages	12/04/2011

Training for E-Education collaborators

Role	Training	Date
Lecturer	Training 1 for all collaborators	23/05/2009
Lecturer	Training 2 for all collaborators	06/11/2001
Participant	Training 3 for all collaborators	19/11/2011
Participant	Training for Collaborators in Natural Sciences and ICT	15/09/2011

Picture 17: E-Card sample

The E-Card will also contain information on the role of E-Education collaborators and participation at training sessions.

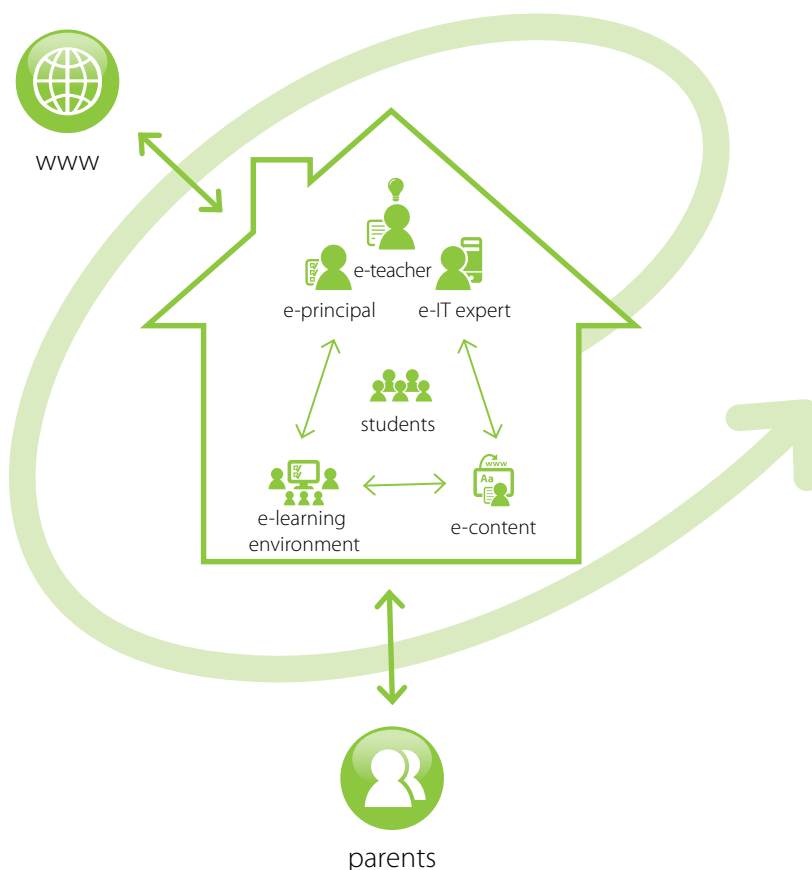
The E-Card represents a list of skills that belongs in the portfolio of every education professional. The latter is increasingly important since it is a record and a plan of every individual's development.

E-competent school

Breda Gruden, Bernarda Trstenjak

Schools are places where young generations spend a significant portion of their lives – it is where they acquire their basic skills and learn behavioural patterns and values that stay with them throughout their lives. All education professionals influence their development on a daily basis; the central role in this development, however, still belongs to teachers and pre-school teachers. They are the intermediaries between the constantly changing world and those entering it. More and more is expected from teachers, and one of the most fundamental guidelines is that they follow the trends of innovative teaching, in which the role of ICT is significant. A sensible use of ICT represents a huge potential for independent learning, collaborative work and the development of various skills. It is in this area that the project E-Education wants to contribute to a high-quality training of education professionals and lead them on their way to becoming **e-competent teachers, e-competent principals and e-competent IT experts or ICT co-ordinators**.

An e-competent school increasingly emphasizes the **use of modern learning technology**, which includes a suitable internet connection. The Ministry of Education, Science, Culture and Sports has been providing the necessary equipment (as resources allow), however, technology alone is not enough. What is essential is the **learning content** – and in the age of informatization, an increasing amount of content is e-based and e-textbooks are becoming progressively commonplace.



Picture 18: An e-competent school

A contemporary school of the 21st century or an e-competent school, as such school is named within the E-Education project, is a school of e-competent teachers who sensibly use e-content in e-learning environments and follow contemporary teaching and learning trends centred on e-competent children and adolescents.



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