



## Path to E-Competency & E-Education Project

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### Abstract

*Lifelong learning is no longer a choice, but a necessity for keeping up with economic and social change. The role of teachers and educators is becoming more important as they are becoming intermediaries between the rapidly changing world and the youth who enter it. This is why all teachers, which are key to prosperous usage of ICT in education, should learn and teach modern methods of teaching.*

*The E-Education project has been active in Slovenia since 2009. The aim was to build a path for schools to get ready for 21st century technologies and become an e-competent school. This requires schools to set up an e-learning environment, develop appropriate e-content and educate e-competent teachers.*

*The key task in the project is the training of teachers and the development of a standard for e-competent teachers, principals and ICT coordinators and experts. The training focuses on achieving the fundamental e-competences, which we use as a framework for digital literacy. These e-competences are supposed to be used by the teacher in the classroom, the principal in school management and IT coordinator for planning.*

*The path towards e-competency is based on seminars, which each focus on developing one of the six key e-competences. In addition to the seminars, the project also helps schools in their development by having individual teaching and management consultants. These consultancies add great value and provide help to schools in the fields needed for the completion of the e-competences.*

*By developing our own information system we manage the entire project. Within this system we can manage the information for different levels and provide evaluation for the entire project. The information system helps an individual plan and monitor their way to the e-competence with the e-card. When an individual successfully accomplishes all six e-competences the path to e-competency is complete.*

*The web portal SIO is also a part of the project. Every day the site has more than 3000 unique viewers looking for news, e-content, e-collaborations, catalogue of seminars and consults and support. Each year, best practices are shown at the SIRIKT international conference. The conference was attended by more than 1200 participants in 2012.*

*The E-Education project in Slovenia is concluding in 2013. Until December 2012 more than 80% (674) of Slovenian schools were involved in the project, each having at least 20 hours of consulting. In the same time period more than 70% (22,237) of Slovenian teachers visited 2088 seminars.*

*The results of the project until now are very encouraging, indicating that teachers are aware that only new knowledge will help them keep up with the changing times.*

### 1. Introduction

The E-Education project follows the vision of the Government of Slovenia that approved the strategy for the Development of Information Society in the Republic of Slovenia in 2007. This framework includes equipping schools with the appropriate technology, the development of e-content and the training of personnel in education.

Under the reigns of the Ministry of Education, the project has been active since 2009. Three projects have been running at the same time in regards to the E-education project. These are: E-content, e-competent teachers and consultancies. The common goal of these projects is to build an e-competent school, which requires the formation of an e-learning environment, development of appropriate e-content and most importantly, educating the necessary e-competent teachers who will be able to use this content.

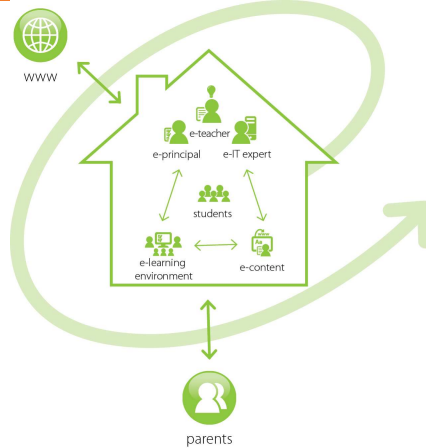


Figure 1: E-competent school

Children who are now entering schools were born in the environment of mobile phones, computers and the Internet. They are looked upon as "Digital Natives", because they are focused on short and precise writing and their way of learning is much more prone to critical thinking rather than memorizing facts. This generation requires a completely new approach and puts teachers in the role of facilitators and collaborators, rather than authority.

## 2. The E-Education Project

The E-Education Project was conducted in accordance with the needs of today's society. Following the needs of learners, the project defines the required level of digital competencies (which are for the purpose of this project defined as e-competences). Different users in education need these competences for different purposes for example teachers need them for their work in the classroom, principles use them for school management and IT coordinators for planning.

### 2.1 The standards

One of the key goals of the project is the training of teachers and development of a Standard for e-competent teachers, principals and IT coordinators. 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.

The way to achieve the standard is based on six fundamental e-competences, which are defined to assist in the achievement of digital competence. On the way to E-Competency each teacher, principal or IT coordinator develops their e-competences through seminars, where each seminar is developed for one basic e-competence. As is shown in Figure 2, the path to e-competency consists of six basic e-competencies:

- C1. Knowledge and awareness of ICT, critical use;
- C2. Communication and online collaboration;
- C3. Search, select, process and evaluate data, information and concepts;
- C4. Safe use of the web, ethical and legal use of information;
- C5. Design, produce, publish, adapt materials;
- C6. Plan, perform, evaluate learning and teaching by using ICT.



Figure 2: Six key competencies

The first step is made by the participation at an introductory seminar, where the participants learn about the e-learning environment in live and online cooperative (collaborative) work. On the second step towards e-competency, teachers select and complete at least four seminars. Seminars are structured so that there are 2 live meetings in the midst of online collaborations. The seminars consist of mainly workshops and types of collaborations such as discussions and little to none lectures. Figure 3 show the way a teacher can reach e-competency.

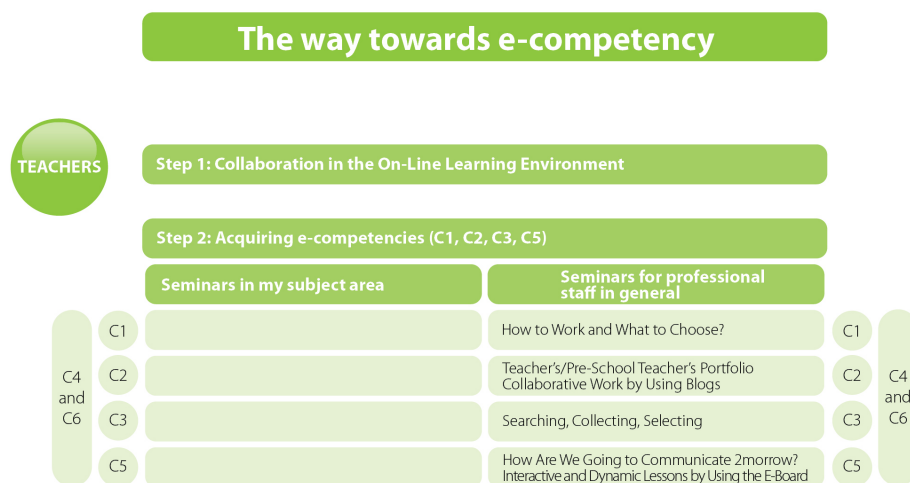


Figure 3: A diagram presenting the way to become an e-competent teacher

## 2.2. Evaluation

In the last phase of the project we have developed ways to independently assess competencies, so that the skilled self-learners are able to evaluate and attest their e-competencies without taking part in the seminars. Each individual can monitor their way towards e-competency with an e-card, so that an individual can plan and monitor their professional development. In addition to seminars different individual teachings and management consultants are held, which add great value in upgrading and completion of the e-skills. Because hardware and software are always changing we have also provided schools with technical support for their technical problems.

To ensure the quality and adaptive-ness of the project we have implemented evaluations at each step. Furthermore we have also developed a self-evaluation system, where the collaborators evaluated themselves. One of the evaluations is a survey on the transfer and use of acquired e-skills of



participants. More than 80% of the teachers surveyed answered that they had transferred their new e-skills into practice. Teachers also estimate that more than 70% of pupils are happy about the progression of ICT use in the classroom.

### 2.3. Evolution

Training staff is crucial for the successful implementation of the project activities in many forms. These collaborators were educated at the start of the project and have continued their development into specific fields and roles. All the time we have more than 600 active collaborators, which are divided into different roles (project leadership, team leaders and members, trainers and consultants, consultants for school leadership and technical support).

The development of an IT system was a strategic decision intended to facilitate the management and administration of the project. By developing our own information system we manage the entire project. Within this system we can manage the information for different levels and provide evaluation. The information system has three main types of users: managerial staff (to help with his plans to campaign in the project and following their completion), collaborators (who receive their work instructions and write reports) and attendees of seminars (who can monitor this way to e-Competency). The information system is a living organism that is evolving with the development of the project.

The web portal SIO ([www.sio.si](http://www.sio.si)) is also a part of the project. The objective of the portal is to provide an overview of training opportunities, consulting and technical assistance to create a community of users that will gain new knowledge and develop new teaching approaches in the educational process to ensure access to quality in educational materials. Every day the site has more than 3000 unique viewers looking for news, e-content, e-collaborations, catalogue of seminars and consults and support. Each year teachers share their experiences in practice at the international conference SIRIKT ([www.sirikt.si](http://www.sirikt.si)), which is organized within the project. The number of participants grows each year and in 2012 nearly 1,200 teachers, principals and IT coordinators attended the conference. The conference begins with a videoconference with the participation of invited experts. The videoconferencing day is held next and encourages school and pupil participation. The conference is then followed by 3 live days. On the third day users explore news in the field of IT in education and on the final days we concentrate on e-component schools and examples of good practices.

### 3. Conclusion

The E-Education project is set to complete in 2013. The advantages of becoming part of the project for a school is to be on the forefront of new teaching approaches. Furthermore the project helps them to provide a clear picture of what is needed to become an e-competent school. This includes constant availability of free seminars and consultancies for their employees for creating, planning and implementing ICT at their school.

Until now more than 80% of Slovenian schools have participated in the project and each of these schools were involved in approx. 20 hours of consulting. More than 2088 seminars were held with more than 33.500 attendees (22,237 different individuals who participated in more than 1 seminar). This number represents more than 70% of all Slovenian teachers. Project results are encouraging and they indicate that teachers are not only more aware with the new knowledge received but also and keep up with the changes happening at the present time.

### References

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