

# *Teacher Unions Preventing Early School Leaving Through the Use of ICT in Education*

*Draft Practical Guidelines on  
How to Prevent ESL through  
ICT in Education*



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## Preamble

Early school leaving is an obstacle to equal opportunities in society. Early school leavers are at risk of being unemployed later in life and participating less in democratic processes. Leaving school early deprives young people of the possibility to engage in lifelong learning and puts them at risk of exclusion from society. For society as a whole, early school leaving also means a great loss of potential.

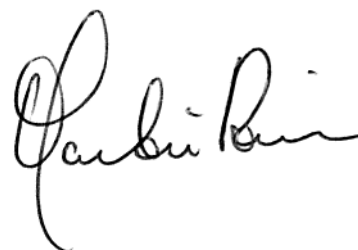
This is why ETUCE supports the European Union's target of reducing early school leaving to 10 % by 2020. This goal is particularly important to enable those students to complete their education who are facing barriers. In times of the economic crisis, students from lower socio-economic backgrounds and other disadvantaged groups are particularly at risk of not living up to their full potential in education.

This project explored the opportunities that information and communication technologies withhold to prevent students from dropping out early. Digital technologies are involved in almost all aspects of modern living. ETUCE believes that they have a potential for education because they can be lifelong learning enablers and allow for student-centred teaching approaches. Within previous projects, ELFE 1 and ELFE 2, ETUCE explored the pedagogical use of ICT in education and its added value for teaching and learning.

This project stands out because of its applied approach. Schools, education institutions, and education authorities were visited in four European countries; interviews were conducted with the people who work and learn in these

institutions. The aim was to capture the experiences, motivations and ideas of those who are directly involved in shaping education realities in Europe. The results were discussed at a workshop and a final conference bringing together teacher unions, teachers, and researchers together with the associated partners: the employers' federation (EFEE) and the secondary school students' association (OBESSU). As an outcome, the project provides some answers to the question of how information and communication technologies could narrow the gap between students who are at risk of exclusion and those who are fully integrated in education and society as a whole.

Building on these insights, practical guidelines were drafted and will be presented to the ETUCE Committee in spring 2014 for adoption. Their objective is to advise and inspire teacher unions and their affiliated teachers, schools and educational institutions, stakeholders in education and policy makers on the use of ICT for preventing early school leaving.



Martin Rømer  
Brussels, January 2014



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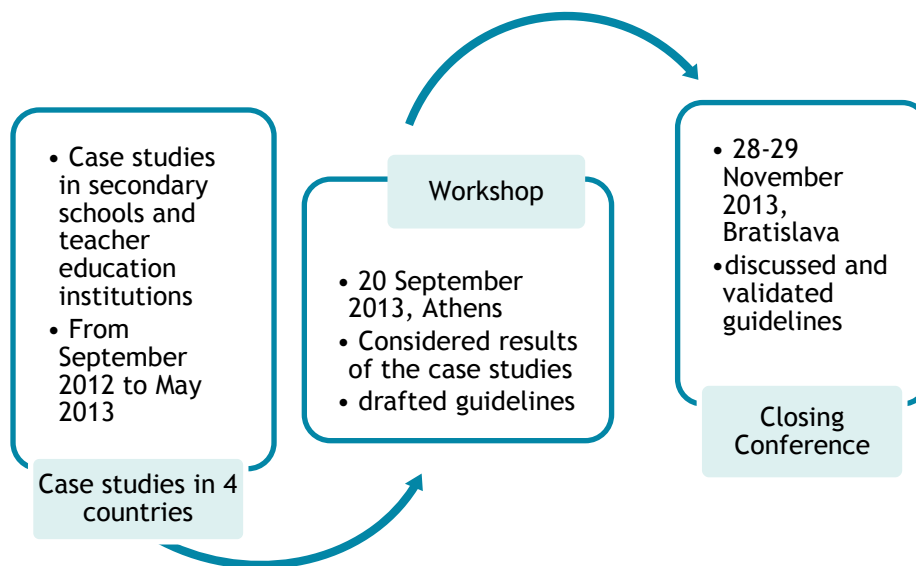
# 1 Project Overview

This ETUCE project, *Teacher Unions preventing early school leaving through the use of ICT in education*, connected the beneficial effects of the use of ICT in education to the serious issue of early school leaving.

Specifically, the project sought to identify how ICT and innovative teaching based on ICT can assist in re-attracting individuals back to school who are at risk of exclusion from formal education. It analysed how teachers can support the potential of ICT to bridge the gap between what these individuals

experience and learn at home and in school.

The project took place between 1 January 2011 and 30 April 2014. Within this time frame, **four case studies were conducted in teacher education institutions and schools in Denmark, the Netherlands, Portugal and Azerbaijan.** In a workshop, **practical guidelines on the use of ICT in education to motivate students to school** were drafted and were later evaluated at a final conference. The practical guidelines will be presented for adoption to the ETUCE Committee in April 2014.



## 1.1 Project Context

This ETUCE project connects to one of the head targets of the European Union’s ten-year growth strategy *EU 2020*. **The EU 2020 strategy has set the target to reduce the school drop-out rate below 10% and to raise by 40% the rate of 30-34 year olds completing third level**

education.<sup>1</sup> Looking at the issue of early school leaving in Europe, there is a need to target the rising number of young people leaving school with lower secondary education or less.

This project chose a broad focus as it defined early school leaving as all forms of leaving education or training before completing upper secondary education. According to this definition, Eurostat statistics on ESL have shown that **more than six million young Europeans (age 18-24) left school in 2009 with only lower secondary education or less.** Although this number has dropped to five and a half million people in 2012,<sup>2</sup> the issue of ESL is still worrying considering its severe consequences to individuals and society. **Early school leaving is connected to the risk of unemployment and less participation in democratic processes.** It deprives young people of the possibility to engage in lifelong learning and puts them at risk of exclusion from society.

### Early School Leaving

All forms of leaving training before completing upper secondary education.

With regard to ICT, the last two decades have seen an incredible development such that almost all aspects of modern living involve the use of technology on a frequent if not continuous basis.

Still, the PIAAC study (October 2013)<sup>3</sup>, among others, has shown that there is a **shortage of ICT skills among adults in Europe.** For this reason, it makes sense to explore the potential of digital learning environments in formal education. Further empirical evidence suggests that **ICT can be a motivator and a stimulus.** The STEPS Study (2006-2009)<sup>4</sup> showed that **ICT has a positive impact on wider educational goals, such as students' attendance, behaviours, motivation, attitudes, confidence and engagement.**

Previous ETUCE projects, ELFE 1 and ELFE 2,<sup>5</sup> found that whilst the use of ICT in schools has progressed, **more attention needs to be given to developing and understanding the role of technology in 'enhancing learning'.** In particular, pedagogical approaches



International Business College, Kolding, Denmark



Grafisch Lyceum, Rotterdam, the Netherlands



based on combining the crucial pedagogical skills of teachers and the benefits of modern ICT capability could lead to significant increases in attainment.

<sup>1</sup> An overview on the head targets of the *EU 2020* strategy can be found on the *Europe 2020* website of the European Commission: [http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index\\_en.htm](http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index_en.htm).

<sup>2</sup> A comprehensive overview of the recent development of statistical data on early school leaving can be found in the European Commission's Education and Training Monitor 2012: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52012SC0373:EN:NOT>

<sup>3</sup> More information on the PIAAC study and its results can be found on the PIAAC website of the OECD: <http://www.oecd.org/site/piaac/>

<sup>4</sup> More information on the STEPS study and its results can be found on the Life Long Learning website of the European Commission: [http://eacea.ec.europa.eu/llp/studies/study\\_impact\\_technology\\_primary\\_school\\_en.php](http://eacea.ec.europa.eu/llp/studies/study_impact_technology_primary_school_en.php)

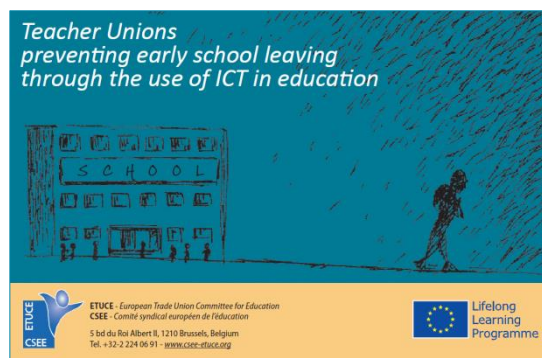
<sup>5</sup> The outcome of the ELFE 1 and 2 projects, conducted by ETUCE, can be found on the project website: [http://www.elfe-eu.net/flx/english/earlier\\_projects\\_elfe\\_1\\_and\\_elfe\\_2/](http://www.elfe-eu.net/flx/english/earlier_projects_elfe_1_and_elfe_2/)

## 1.2 Project Objective

Alongside the general frame of reducing ESL by embracing the use of ICT in education, the project had several specific objectives. The first objective was to identify how ICT (this includes ICT-based tools and innovative teaching methods based on ICT) can assist in **motivating and re-attracting individuals back to school**. Groups who might be particularly vulnerable to the risk of being excluded from formal education are early school leavers, ethnic minorities, and immigrants. Within this framework the project aimed at analysing the effect ICT use in education has on

individuals in terms of raising the potential to (re-) connect these groups to learning and active citizenship.

Taking on the perspective of teachers, **specific skills and competences that teachers need to be able to integrate a favourable use of ICT in education** were to be identified. In particular, the project sought to analyse **how teachers can support the potential of ICT to bridge the gap between what these individuals experience and learn at home and what they learn in compulsory education**.



Postcards used for awareness-raising

In order to increase the impact of the project, the transferability of the results to the specific cultural context of other countries was taken into consideration. For this reason, the project aimed for developing a **set of concrete and practical guidelines** for teacher unions in Europe, the affiliated teachers and education employees, and relevant stakeholders in education.

### 1.3 The Project Partners

A multinational consortium of seven teacher union representatives worked together in this project with two experts in the fields of ICT in education and early school leaving in Europe. In the function of an advisory group, the ten partners organised the project activities. This included, among other tasks, selecting the education institutions for the case studies, planning and conducting the case studies together with the project experts, discussing the results, preparing the workshop and the final conference, and drafting and amending the practical guidelines. The employers' federation

(EFEE) and the secondary school students' association (OBESSU) contributed to this project in the role of associated partners. They shared their wide experience and valuable insights on the field of ESL and the use of ICT in education at the project workshop and a final conference.



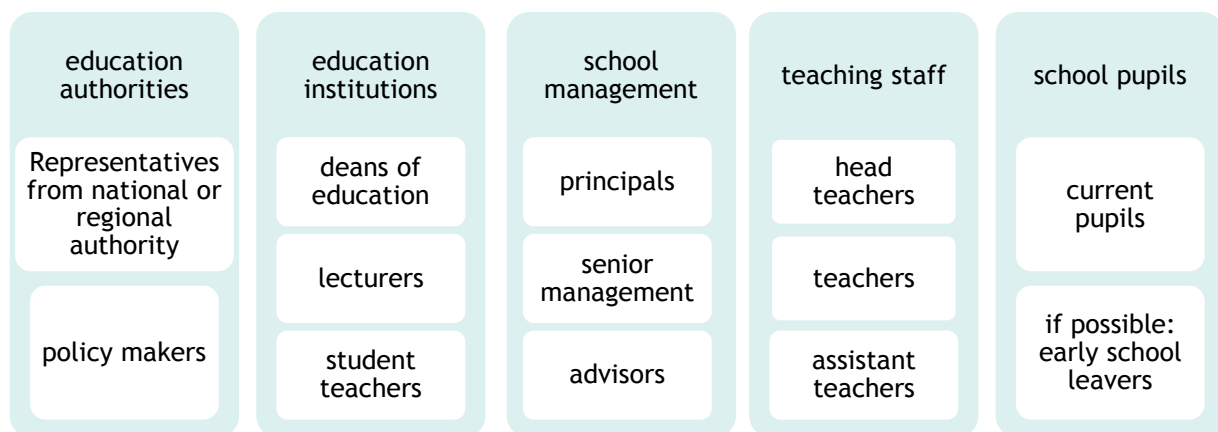
The Advisory Group

 <b>Bert Imminga</b> AOb, The Netherlands	 <b>Hans Laugesen</b> GL, Denmark	 <b>ETUCE</b>
<b>Guntars Catlaks</b> project expert, EI 		<b>George Koursakov</b> ESEUR, Russia 
<b>Roy Leitch</b> project expert, UK		<b>Nigar Mustafazade</b> AITUCEW, Azerbaijan Republic 
<b>Maria Arminda Bragança</b> FNE, Portugal 	<b>Ivan Šoš</b> OZPŠaV, Slovakia 	<b>Eleni Zografaki</b> OLME, Greece 

## 1.4 Methodology

In order to find out about present practices on the use of ICT in the prevention of ESL, data was collected in this project through qualitative research interviews. Entering in a dialogue with different key groups in education, such as teachers, education employees, representatives from national or regional education authorities, and students, seemed most promising in order to collect different experiences and perspectives. Four countries were selected for the case

studies in this project - Denmark, the Netherlands, Portugal and Azerbaijan - representing the geographical and political diversity of Europe. Together with the project's experts, the members of the advisory group developed the interviews. The interviews were conducted using a semi-structured interview method so as to carry out the interviews in a systematic way without harming the atmosphere for dialogue.



In Denmark, the Netherlands, Portugal and Azerbaijan, meetings with some or all of the above groups took place. An interview schedule was prepared in advance. It suggested the topics and questions that the interviewer could ask prompting different styles and key words adaptable to different interview situations. Separate schedules were developed for staff and students, but they all focused on the same subject areas.

After each case study visit, a summary report was written focusing on themes and best practices as perceived and described by the respondents. Using audio recording facilities on a tablet, the interviews were recorded, so that the

### Semi-Structured Interview

A research method often used in the social sciences. A semi-structured interview is flexible as it allows new questions to be brought up during the interview as a result of responses. The interviewer follows a framework of areas and questions to be explored. Semi structured interview techniques are intentionally subjective and empirical. They aim to capture the views, experiences, and perspectives of the interviewees in an as accurate and meaningful way as possible.

written notes could be confirmed. The interviews were analysed for a set of emergent themes for each interview, master themes for each country, and summative themes for the overall project.

### Subject Areas

- Use of ICT in Education
- Approaches to ESL
- Use of ICT in Reducing ESL

## 2 Project Activities

### 2.1 Case Studies

Visits of three days duration were conducted in each of the countries selected for the case studies. In each country, interviews with management, teachers and students in three institutions known to be active in ICT in education took place. During the visits, 20 members of staff (principals, deputy principals, and heads of pedagogical departments), 32 teachers and 38 students were interviewed.



International Business College, Kolding, Denmark

#### Case Studies

- Denmark, 4-6 September 2012
- The Netherlands, 22-24 January 2013
- Portugal, 5-7 March 2013
- Azerbaijan, 6-8 May 2013



## 2.2 Workshop

Within this project, a workshop was organised on 20 September 2013 in Athens, Greece, in order to discuss the results of the case studies and to draft practical guidelines on the use of ICT to motivate and re-attract individuals at risk of exclusion from formal education. The workshop gathered 40 participants coming from 24 European teacher unions, from the federation of education employers (EFEE), from the European school students' unions (OBESSU), as well as from research institutions. **Guntars Catlaks** and **Roy Leitch**, the project's experts, presented the analysis of the interviews which were conducted during the case studies. The participants discussed the findings of the four project case studies and considered insights on ESL and ICT in education.

**Maria Nikolakaki** from the University of Peloponnese, Greece, gave a presentation on the issue of early school leaving in co-operation with **Pavlos Charamis**, Centre for Educational Research and Documentation of OLME. Mrs Nikolakaki emphasised that **ESL has severe consequences for both the**

**individual and the society.** The current economic crisis has hit Greek teachers and students hard. Working hours for teachers were increased, schools' budgets and teachers' salaries were cut, and schools were being closed down. **If early school leaving is to be reduced, then schools need to be funded adequately.** Technology can be a means to solving the problem of ESL but is not a solution by itself.

**Gráinne Conole** from the Institute of Learning Innovation at the University of Leicester, presented examples of the pedagogic use of ICT in education to prevent early school leaving. Mrs Conole listed several functions technologies could fulfil. Generally, **technologies can assist by providing virtual support on overcoming learning obstacles and by creating networks.** Certainly, technology can also be used as a means to monitor students' progress, but these tools may have a more promising effect if they are given to students themselves so these learn to plan and overview (learning) activities.



Plenary Session at the Workshop



In the working group sessions following the presentations, the participants of the workshop drafted practical guidelines

which were to be finalised in the final conference in Bratislava.

## 2.3 Final Conference

On 28-29 November 2013, the final conference of the project took place in Bratislava, Slovakia. The conference gathered representatives from teacher unions, the employers' federation (EFEE), the secondary school students' association (OBESSU), researchers, and teachers. The main objective of the conference was to discuss practical guidelines on the use of information and communication technology (ICT) in education in support of the prevention of early school leaving. These practical guidelines aim to give advice to teacher unions, education institutions, policy makers and other stakeholders in education. They build up on the findings of the four project case studies as well as on the outcome of the project workshop conducted in September 2013.

**Eleonora Waltraud Schmid** from the European Centre for the Development of Vocational Training (CEDEFOP) presented the latest findings on early school leaving in vocational education and training. **These showed that the challenges**

**connected to early school leaving lie both inside and outside the education system. With regard to using ICT strategies to attract risk groups back to school, most EU countries are still in an experimental stage.**

**Guus Wijngaards**, ETUCE representative in the Open Method of Coordination (OMC) Working Group on ICT, presented the recent initiative of the European Commission, *Opening Up Education*. Mr Wijngaards emphasised the need to **discuss the use of ICT at school level**

Right: Working Group Session

Bottom Left: Working Group Session

Bottom Right: Plenary Session



and to take teachers', students', and parents' perspectives into account when promoting the use of ICT in education. Schools need appropriate infrastructure to make use of the technology and they should be encouraged to find solutions, which are adapted to their institution.

Elzbieta Leszczynska, ETUCE representative in the OMC working group on ESL, reported back from the thematic working group on early school leaving of the European Commission. This group has recently developed key policy messages on the prevention of ESL.<sup>6</sup> Mrs Leszczynska highlighted that schools should be supportive learning environments that focus on students' needs. For this, schools need to be supported by multi-professional teams.

As teachers are not very well prepared to deal with early school leaving at present, it is important to invest in professional initial training and long term development.

In order to learn from the experiences made in different national contexts, school teachers and leaders from five institutions presented their daily experiences in making use of ICT in their institution to attract pupils back to school.<sup>7</sup>

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<sup>6</sup> The full report of the working group, including the key messages can be found here [http://ec.europa.eu/education/policy/strategic-framework/doc/esl-group-report\\_en.pdf](http://ec.europa.eu/education/policy/strategic-framework/doc/esl-group-report_en.pdf)

<sup>7</sup> The conference report can be downloaded from the project website [www.elfe-eu.net](http://www.elfe-eu.net).

## 3 Results from the Case Studies

### 3.1 Denmark

#### Visits in Denmark: 4-6 September 2012:

- International Business College, Kolding
- Randers HF& VUC, Randers
- Institute for the Study of Culture, University of South Denmark,

The case studies in Denmark proved the semi-structured interview approach to be very successful as it resulted in extremely constructive dialogues with the interviewees. With regard to the overall results, it was observed that Denmark is an advanced country in the use of ICT in education. The education institutions seem to enter a 'post-experimental phase' of incorporating ICT into the

education process. Several interview partners stressed the need to integrate ICT into traditional teaching methods and to transform the role of the teacher. In this respect, teachers are rather 'leaders' of the education process, but not necessarily the only deliverers of learning contents. Certainly, in order to progress beyond the ICT experimentation phase, it is important to gain more insights on the use of ICT in particular situations. **More methodological work is required to develop a classification of approaches and a specification of situations and positive relationships between them.** Staff training is further needed to provide guidance on the use of ICT in the classroom.

In the case study in Denmark, early school leaving was not seen as a major local problem but more as a reasonable national objective. However, **using an integrated student-centred approach was believed to be the best way to enhance attainment and therefore**

**reduce ESL rates.** Such an approach combined with the strict enforcement of sanctions was considered to be most viable for preventing students from early drop out.



International Business Academy, Kolding, Denmark



Randers HF & VUC, Randers, Denmark

## 3.2 The Netherlands

### Visits in the Netherlands: 22-24 January 2013:

- Noordelijke Hogeschool, Leeuwarden
- Hondsrug College, Emmen
- Grafisch Lyceum, Rotterdam

Similar to Denmark, The Netherlands is also an advanced country in terms of the use of ICT in education and can be considered to be entering a 'post-experimental phase'. In all schools visited, ICT was firmly embedded in the education process. **ICT served as a tool in the well-conceived and conceptualised paradigm shift from teacher-centred to learner-centred**

**education.** However, the interviews showed a very strong recognition of pedagogical autonomy and personalised teaching styles. Because of respect to individual autonomy, mandatory practices were rather disapproved.

The evidence seen in the Netherlands suggests that implementing **an advanced use of ICT in pedagogy very much depends on the enthusiasm and leadership of a small group of active members within the education community.** Moreover, the increase of personalised learning platforms raises questions about working times for education staff and about future curricula.





Noordelijke Hogeschool, Leeuwarden,  
The Netherlands



Hondsrug College, Emmen, The Netherlands

In the Dutch educational institutions, **early school leaving was not regarded to as a local problem but more as an abstract issue**, even though interviewees were aware of reducing ESL rates as an important goal for the government. However, **interviewees perceived the use of ICT for pedagogical purposes to be a powerful factor to reduce ESL.**

With regard to the positive effects of the use of ICT, interviewees expressed several assumptions, e.g. that it enabled personalised learning; increased student ownership, motivation, and innovation; fostered communication with peers and teachers; and enhanced student achievement.

### 3.3 Portugal

#### Visits in Portugal: 5-7 March 2013:

- Teacher Education Institution at the University of Lisbon
- Eça de Queirós, Lisbon
- D. Dinis School, Lisbon

Portugal seems to be still in an experimental phase regarding the pedagogical use of ICT. **Most initiatives are started by individual teachers and are usually inspired by a piece of technology.** This practice has the effect that initiatives might lack sustainability and consistent evaluation. Further, there is little development in the field of pedagogy, although a rather consistent

view of the need for student-centred education was apparent.

Regarding ESL, **interviews confirmed the view that the social background and the family background (e.g. low income) was the predominant cause to put students at risk to leave school early.** A lack of motivation, deriving either from students' backgrounds or from their school experience, was the main factor to trigger ESL. However, interviewees stated that **the school experience could be significantly enhanced through the use of ICT based methods** increasing motivation and improving retention. ICT based approaches could also release staff from administrative work and give them

more time to interact with students directly. This would make it easier to detect difficulties in performance and motivation.



Eça de Queiroz School, Lisbon, Portugal



D. Dinis School, Lisbon, Portugal

In general, teachers felt that they were not adequately trained to make use of the potential of ICT in learning. Further, they noticed a considerable gap between the description of didactics in Portugal and the lack of guidance on the choice of practical approaches. Some teachers and students suggested that team-teaching would enable teachers to share their ideas and to develop new methods.

Looking particularly at the use of ICT with the aim to reduce ESL, interviewees pointed at the perceived relevance of the national curriculum and the examinations for completing secondary school education. In general, these were considered as too “academic” and lacking relation to real life, as well as to professional and vocational practice. However, Portuguese interviewees reported of considerable evidence that interactive resources based on student-centred methods significantly increase attainment even in national examinations, although the competency development has not been assessed so far. Nevertheless, a review of the national curricula, and the introduction of combined final and continuous assessments could make a vital contribution to the reduction of ESL.

### 3.4 Azerbaijan

#### Visits in Azerbaijan: 6-8 May 2013:

- Azerbaijan Teachers' Institute, University of Baku
- School No.20, Baku
- School No.220, Baku

Azerbaijan is a country at the crossroads. It is at the initial stage of developing the use of ICT in education. In the last years,

the emphasis has been on providing schools with technical equipment. In the wake, there is a growing need to roll out teacher training programmes on how to use ICT for pedagogical aim. This is important to ensure that ICT is not only ‘embedded’ in the traditional way of teaching, which could block or even reverse developments in teaching and learning, but that it provides an added

value to teaching and learning. There are signs that this is happening already. There are also examples of progressive thinking towards personalised learning and learner-centred curriculum development. There is strong evidence that such methods are highly motivating and should be supported in order to develop further. In order to foster this process, a curriculum reform seems to be a necessary precondition, coupled with more formative and diagnostic assessment and summative examination.

**Early school leaving is currently seen as a marginal problem** and mainly as a legal issue - a matter of enforcing and strengthening the law mandating attendance of all school age children.

Attention should be given to teachers' working conditions when expanding the pedagogical use of ICT in education. Teachers need more support in terms of time and resources in order to innovate.

Regarding initial teacher education and professional development, top priority should be given to expanding and enhancing teacher participation in international training and exchange programmes and projects. In the situation where monetary instruments (salaries) are not attractive, such international exchange can be very motivating for teachers. Teachers can then not only develop in their profession but also take on the role of catalysts for change in their pedagogical communities.



School No. 220, Baku, Azerbaijan



School No. 20, Baku, Azerbaijan

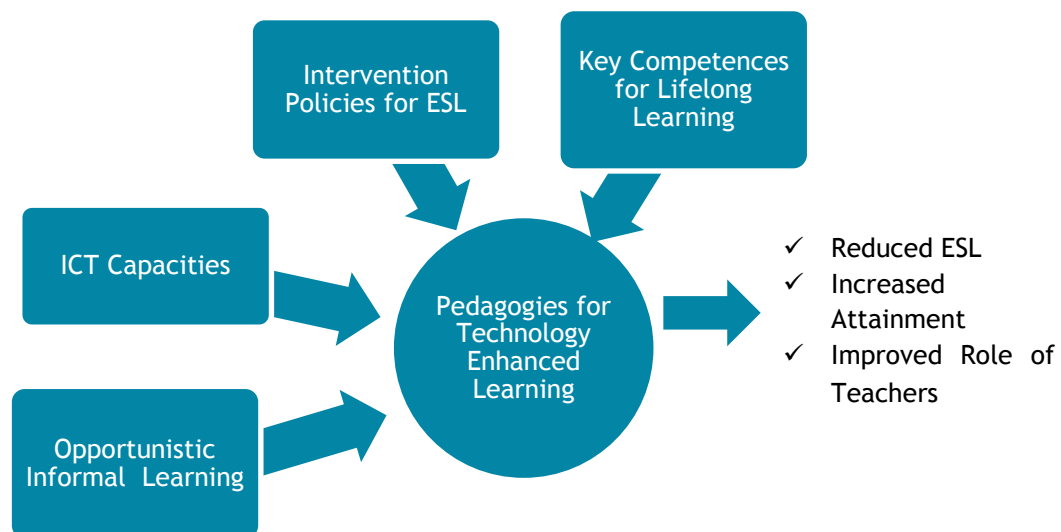
## 4 General Conclusions

Despite of the different contexts, some striking similarities were found in the educational institutions visited during the case studies. Interviewees stated that primary causes for early school leaving were pupils' disadvantage backgrounds.

For example, pupils from families with lower incomes are more likely to leave school earlier; however, early school leaving can also expand to students from middle class backgrounds. Other factors which may cause ESL are low education

resilience, lack of motivation and support, and strong teenage distractions. Old fashioned pedagogies and rigorous curricula made it difficult for students to find support and keep up motivation. Certainly, education in modern times is competing with the media, and academic study can be, in comparison, quite disillusioning. Finally, the opportunistic social use of ICT outside education might create environments which hinder

learning in formal education. Successful pedagogies for technology enhanced learning thus have to take into account four different aspects: First, the level at which intervention can be done most effectively; second, the specific ICT capabilities present; third, the role of ICT skills as key competences for lifelong learning; and finally, the opportunistic informal learning that is connected to the present use of ICT by many students.



## 5 Results from the Workshop and the Final Conference: Draft Practical Guidelines

As the title indicates, the following draft of the practical guidelines on the prevention of early school leaving through the use of ICT in education derived from the project results. The insights gained in the case studies were used as a starting point for discussion at the project's workshop and the guidelines

were further developed, discussed and amended at the final conference. **The hereafter enlisted guidelines are a draft which will be presented to the ETUCE Bureau and the ETUCE Committee in April 2014 for adoption.** The ETUCE secretariat will circulate the final document after its adoption.

## ETUCE Draft Practical Guidelines on

# How to Prevent Early School Leaving through the Use of ICT in Education

## Background

These practical guidelines have been developed within the frame of the project *Teacher Unions Preventing Early School Leaving through the Use of ICT in Education*. They build on the project activities (four country case studies<sup>1</sup> and a project workshop) to which the ETUCE member organisations actively contributed. The guidelines address in the first line teacher unions in Europe and their affiliated teachers and other education staff as well as education employers, students and policy-makers in education, on the innovative use of ICT in education in support of the prevention of early school leaving. They will be presented to the ETUCE Committee for adoption in April 2014.

In light of the austerity-driven budget cuts in the education sector, the ETUCE - EI European Region Conference defined the clear goal to advocate for the provision of quality education, in particular as regards the *EU 2020 Strategy* and its flagship initiatives. The project and guidelines therefore also stand in the light of European Commission communications on [Rethinking Education](#), [Opening Up Education](#) and [Tackling early school leaving: A key contribution to the Europe 2020 Agenda](#) and wish to contribute the specific teacher union's point of view to the implementation of the strategy. In addition, the project goes along with the global EI initiative [Unite for Quality Education - Better Education for a better world](#) in 2013/2014, which seeks to promote the provision of high quality education for all as one of the fundamental pillars of a just and equitable society.

## Aim

The *EU 2020 Strategy* has set, amongst other priorities, the target to reduce the school drop-out rate below 10% and to raise by at least 40% the rate of 30-34 year olds completing third level education. Within this context, the ELFE-ESL project guidelines seek to enhance learning through ICT and to identify concrete ways of how innovative pedagogic use of ICT can help especially to motivate/(re-)attract potential drop-outs back to school and to learning. This is essential not at least in times of austerity, for the ultimate goal of high quality education.

Focusing on the crucial role of teacher unions, the project and guidelines wish to determine the specific skills/competences that teachers need to employ a favourable use of technology in class and to analyse how teachers can support the potential of ICT to bridge the gap between what pupils experience and learn at home and what they learn in compulsory education.

It is clear that using ICT in education is not only the magic wand that will help pupils to integrate and solve early school leaving, however it is much more: it is a motivator and

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<sup>1</sup> In the EFLE-ESL project, four case studies to two upper secondary schools and one teacher education institution in Denmark, The Netherlands, Portugal and Azerbaijan were carried out. The reports of these case studies can be found at: [www.elfe-eu.net](http://www.elfe-eu.net).

creative stimulus for lifelong learning that can help pupils to gain the skills they need to become responsible citizens in a modern society. This document therefore does not provide a one-size-fits-all solution for every country and every individual learner. Instead these guidelines should be used as a supporting tool, to be assessed and adjusted to the national context and conditions concerning the innovative use of ICT in education and early school leaving.

## Guidelines

Building on the findings of the ELFE-ESL case studies, the discussions in the project workshop and the [policy recommendations](#) of the previous ETUCE project on eLearning (ELFE 2),<sup>2</sup> the guidelines address three main levels (European, national teacher union and school/local level) for specific actions. They result from the education needs which the research report clearly identifies as:

- to become more student-centred, to reflect the various needs, backgrounds, motivations and aspirations of the learner, important steps towards personalised learning;
- to acknowledge the evolution of informal learning which is promoted by online direct search, user created knowledge sources as well as social networks;
- to seek to combine the pedagogical skills and experience of teachers with the capabilities of modern information and communication technology;
- to develop pedagogies and models to realise the above objectives;
- to promote professional development of teachers in the adoption of pedagogies for the use of ICT;
- to carry out strategic projects to demonstrate the outcomes and benefits of such an approach.

### Practical Guidelines at European Policy Level

The main objective at European level is to achieve the education goals of the EU 2020 Strategy as regards training subject competence, training 21<sup>st</sup> century skills, to prepare more students for tertiary studies and ensuring that 90 % of the pupils complete an upper secondary education.

To bring about a lasting change on the innovative use of ICT in education and the prevention of early school leaving, governments need to invest more in quality education. It is only with the appropriate funding for sustainable high quality education as concerns infrastructure, teacher training and teaching material, that a future generation of highly skilled professionals can be formed - a new generation which is badly needed to exit the economic crisis and make Europe a more competitive region. While it is paramount that this process expands on the social dialogue system and the involvement of the social partners in education, it is equally important to acknowledge the subsidiarity principle

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<sup>2</sup> The ELFE 2 project developed [practical recommendations on the pedagogic use of ICT in education](#).

which implies that education policy is a national responsibility. The different education systems in Europe provide the grounds for mutual inspiration and learning among stakeholders from different countries.

The recommendations therefore address the European Commission, ETUCE and other education stakeholders at European level to:

1. Initiate and continue a dialogue between European education stakeholders, with an important role for the social partners in education, on how to reduce the current barriers to the systematic adoption of new teaching methods;
2. Develop a strategic approach to implementing sustainable interactive student centred learning projects in education institutions to increase pupils' attainment and hence reduce rates of early school leaving and to strengthen the relationship between learning in school and activities that take place outside of school;
3. Support the development of a framework for the specification of national curricula and assessment mechanisms to increase relevance and motivation and hence reduce early school leaving rates;
4. Develop a pedagogical framework and specification guidelines for technology enhanced learning to encourage the adoption of new methods relevant to increasing pupils' performance and therefore reducing early school leaving;
5. Support further research on the development of pedagogical methods that may reduce early school leaving and establish a staff development programme in pedagogical approaches to reducing early school leaving;
6. Create a virtual community of best practice, based on social and participatory media, to develop and evaluate new pedagogical methods and to exchange and share experience and methods for the reduction of early school leaving.

### Practical Guidelines at National and Regional Level

At national and regional level, education authorities need to ensure the appropriate conditions at the education institutions for the pedagogical use of ICT in view of preventing early school leaving. It is essential to engage in social dialogue with the social partners to assure the support of education staff, their representatives and school leadership in reducing the drop-out rate and to broaden common understanding that certain initiatives take place in compliance with the national curriculum goals. Furthermore, the work at school level should be supported by the overall national educational objectives, e.g. research can help schools and initial teacher education to connect better to the daily life and challenges at school level.

The recommendations therefore address teacher unions to:

1. Achieve better teaching conditions for education staff and learning conditions for students to allow for diverse pedagogic practices that address the individual needs of the students, in particular as regards the use of ICT, and obtain the reduction of early school leaving;

2. Actively participate in a dialogue with education authorities on adopting a favourable strategic approach to the pedagogical use of ICT and on creating incentives for schools of all levels and types to commit to national early school leaving goals;
3. Ensure that early school leaving is put on the agenda of the national social dialogue with education employers to discuss about the re-integration of drop-outs and those at risk of leaving school early. In this context, it is of particular significance to take into account the cultural and social background of pupils; teaching material needs to be produced that attracts pupils/adults back to school who have left school. Therefore adults who have not completed secondary education should be addressed with specifically adapted material.
4. Make efforts to form school and business partnerships with a view to improve the attractiveness of vocational education and training and to strengthen labour market relevance on the one hand and to build a link to work-based training on the other hand; to support teachers' continuous training.
5. Get involved in the discussion on the need for a curriculum change that includes ICT and its assessment and promotes student-centred education; combining more flexible education systems that offer various avenues and curricula of different duration with counselling and guidance to provide students second and third chances;
6. Promote the provision of sufficient and regularly updated IT equipment, including the adequate support to ensure an appropriate infrastructure for the pedagogic use of ICT both within and among schools with a view to motivate/(re)attract students to school;
7. Initiate further research on best practices as regards the pedagogic use of ICT for the prevention of early school leaving to build bridges between pedagogic research, ICT education and daily life and experience at school level;
8. Promote the inclusion of the pedagogic use of ICT in initial teacher training and in continuous professional development for both teaching staff and school leadership;
9. Raise awareness that teachers play an essential role when introducing blended learning, e.g. in determining the pedagogic approach to be adopted and their responsibility for implementing this pedagogic approach.
10. Support the involvement of teaching staff in the production of ICT teaching content and material and its use in education, e.g. the provision of time and appropriate resources for staff; and ensure that educational software is available in the language used in education and that it is adapted to the specific needs of learners;
11. Encourage the adoption of procedures and student management systems for early detection of risk of early school leaving and methods for encouraging the involvement of parents and local communities in the activities and support of schools.



## Practical guidelines at School and Local Level

Based on the observations in the case studies, there are some initiatives that have proven to make a difference in the education institutions when implemented appropriately. Most importantly, to make a change in the classroom, it is essential that teachers feel an ownership to the goal, and that the point of view of the education staff is taken into account when a school develops its ICT/ early school leaving policy; doing so, will help to obtain the inspiration and necessary support from staff for the policy.

The recommendations therefore address teacher unions, school boards and other actors at school level to:

1. Discuss among staff, and school leadership and students how the use of ICT in education can make a difference to teaching, motivate students and improve the quality of education to the benefit of both staff and pupils;
2. Inspire the sharing of educational resources and experience both between authorities and schools as well as amongst schools and teachers;
3. Support teachers to require a competence development plan that includes the use of ICT and reassure them to learn from trial and errors and secure the funding for the plan;
4. Help teachers to improve teaching approaches that include the use of ICT, to get involved in the selection of educational materials, both soft- and hardware and ensure that teachers retain the responsibility of choosing methods and implementing the school's ICT vision; in this context, support the development of ICT teaching material together with teachers and students at risk of leaving school prematurely;
5. Stimulate joint co-operation of teachers and different stakeholders on the use of appropriate technology in class for the reduction of early school leaving, albeit ensuring that projects are educationally driven and not based on the availability of new software or technological capability;
6. Encourage schools to develop an explicit policy for the pedagogical use of ICT and on tackling early school leaving together with staff, students and parents, e.g. use the school's IT system to register pupils' absences for early detection of those at risk of dropping out of school;
7. Propel equal access and inclusion in education at local level by providing the appropriate infrastructure that allows for equal access for all to teaching/learning tools and material; and ensure that adequate counselling structures are available to assist students at risk of dropping out;
8. In view of establishing a supportive community for ICT-based learning use schools' Learning Management Systems to inform pupils on homework and consider to upload teachers' notes or virtual lessons;
9. Promote the positive use of ICT and the image of internet in education and teach a responsible/respectful use of ICT in schools;

10. Explore carefully the opportunities of the favourable use of social media in education, e.g. consider the creation of social media groups around particular classes and activities which may help to establish a (virtual) community and hence reduce the risk of early school leaving;
11. Improve and encourage alliances with supporting teacher training institutions, in particular, researchers should be invited to advise and contribute to specific school initiatives; in this context, it might be useful to research which technology pupils actually use in class rooms to support teachers in the preparation of lessons.
12. Encourage teacher training institutions to include approaches to early school leaving within their curricula.

## 6 Acronyms

AITUCEW	Independent Trade Union of Education Workers of the Azerbaijan Republic
AOb	Algemene Onderwijsbond (Dutch Education Union)
CEDEFOP	Centre for the Development of Vocational Training
EFEE	European Federation of Education Employers
EI	Education International
ESEUR	Education and Science Employees' Union of Russia
ESL	Early School Leaving
ETUCE	European Trade Union Committee for Education
Eurostat	Statistical Office of the European Communities
FNE	Federação Nacional da Educação (Portuguese Federation of Education)
GL	Gymnasieskolernes Lærereforening (Danish National Union of Upper Secondary School Teachers)
ICT	Information and Communication Technology
OBESSU	Organising Bureau of European Students' Unions
OER	Open Educational Resources
OLME	Federation of Secondary School Teachers of Greece
OMC Working Group	Open Method of Coordination Working Group
OZPŠaV	Slovakian Trade Union of Workers in Education & Science
PIAAC	Programme for the International Assessment of Adult Competencies
STEPS Study	Study on the Impact of Technology in Primary Schools
VET	Vocational Education and Training

## 7 Publications and Reports

Publication	Languages									
Case Study in Denmark	<a href="#">EN</a>									
Brief Summary	<a href="#">EN</a>	<a href="#">FR</a>	<a href="#">DA</a>	<a href="#">NL</a>	<a href="#">PT</a>					<a href="#">RUS</a>
Case Study in the Netherlands	<a href="#">EN</a>									
Brief Summary	<a href="#">EN</a>	<a href="#">FR</a>	<a href="#">DA</a>	<a href="#">NL</a>	<a href="#">PT</a>					<a href="#">RUS</a>
Case Study in Portugal	<a href="#">EN</a>									
Brief Summary	<a href="#">EN</a>	<a href="#">FR</a>	<a href="#">DA</a>	<a href="#">NL</a>	<a href="#">PT</a>					<a href="#">RUS</a>
Case Study in Azerbaijan	<a href="#">EN</a>									<a href="#">RUS</a>
Research Report	<a href="#">EN</a>									
Evaluation Report	EN									
First Internal Evaluation	EN									
Second Internal Evaluation	EN									
Third Internal Evaluation	EN									
Workshop Report	<a href="#">EN</a>	<a href="#">FR</a>								
Conference Report	<a href="#">EN</a>	<a href="#">FR</a>								
Project Report	<a href="#">EN</a>	<a href="#">FR</a>	<a href="#">DA</a>	<a href="#">NL</a>	<a href="#">PT</a>	<a href="#">ES</a>	<a href="#">SK</a>	<a href="#">DE</a>	<a href="#">EL</a>	<a href="#">RUS</a>

The Project Website: [www.elfe-eu.net](http://www.elfe-eu.net)

## 8 Associate Partners

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