



## Case studies

### 17. Scoala No. 191, Bucharest, Romania

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*This is one of 25 case studies produced for STEPS, the Study of the impact of technology in primary schools, to illustrate the impact of ICT, on schools, teachers and learners, and to highlight barriers and enablers to its effective use in the school. Further information can be found at <http://steps.eun.org>.*



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## 1. CONTEXT OF THE SCHOOL

The school is located in a district of Bucharest. It opened in 1965 as a primary and lower secondary school with pupils from 6 to 14 years of age. Pupils attend eight years of instruction: four years in primary school (6- to 10- years-old) and four years in lower secondary school (11- to 14-years-old).

There are 22 classes, 36 teachers, and 12 clerical and administrative staff. The school is led by a headteacher assisted by an educational coordinator and an administration council.



## 2. EXAMPLE OF PRACTICE

An example of practice observed involved using PowerPoint in the teaching of English as a foreign language, to collect, organise, select and present information to consolidate the learning. The teacher used a beamer to help assign tasks and explain them to the class.

The school does not have the resource to host its own website, but some basic information about the collaborative projects the school is involved in is available online via GeoCities.

The lesson focused on using PowerPoint as a method of organising and presenting basic information as text enhanced by images and video clips. The learning objectives of the lesson were:

- to handle and consolidate skills in using PowerPoint
- to work in teams of two or three students
- to organise and highlight information and give an oral presentation in the classroom.

Further details are given in the lesson plan included as an annex to this report.

At the school, 7 of the 36 teachers use ICT as a support tool to teach and evaluate knowledge and skills on a weekly basis. The Ministry of Education in Romania encourages teachers to design their own curriculum for optional lessons, which must be a maximum of two hours each week. Based on the needs of pupils, the school infrastructure, and available skills, interested teachers propose a curriculum, which is first approved by the school headteacher and then forwarded to the Local Educational Department (Inspectorate) for approval. The curriculum proposed by teachers must aim to convey a basic set of knowledge and skills that pupils are expected to acquire.

### 3. IMPACT, BARRIERS AND ENABLERS

#### 3.1 SCHOOL

##### ICT DEVELOPMENT PLAN, IMPLEMENTATION STRATEGY, ORGANISATIONAL CHANGES AND ATTITUDES

###### o **Impacts, barriers and enablers**

- o Romanian teachers are very enthusiastic about using ICT to support teaching and learning.
- o In the 1990s, ICT was introduced in schools to allow a large number of pupils to learn programming languages, but the Ministry of Education has since changed its approach. A national strategy has now been implemented aimed at encouraging teachers to regard computers as learning and teaching tools. Programming skills now form part of the informatics curriculum, and basic computer skills form part of technological education where ICT is viewed as just another technology alongside others such as materials or handcrafts for example.
- o In recent years, most school leaders and teachers have used ICT in school as a support for communication, learning and teaching support. At the same time, the Ministry of Education has realised that just having computers in schools is not enough, but that content is essential too, aligned to teaching and learning needs. As a result, an educational package called 'AeL Educational' has been introduced, providing software dedicated to electronic learning. This package represents a useful work instrument for both pupils and teachers. It aids understanding of educational subjects and increases the efficiency of the learning process, has a user-friendly interface and is a modern eLearning platform. The software package does not require the pupils to be physically present in the classroom.
- o The AeL software package has been implemented in 4,780 Romanian schools and high schools, and the school showcased in this study is among them. The software package is mainly designed to meet the needs of teachers in lower- and upper-secondary schools. The Ministry of Education and local educational authorities recommend that primary school teachers design and adapt existing software applications to meet their needs, according to their skills and knowledge.
- o The Ministry of Education and local authorities have organised several sessions to help teachers become familiar with ICT, and offer limited ongoing assistance to them. Despite these efforts, however, there is a lack of qualified staff at school level to support and maintain the computer labs.



- In summary:
  - Only pupils led by a skilled teacher have opportunities to use computers at school.
  - The lesson content is developed by individual teachers in primary school.
  - Headteachers encourage teachers to combine traditional and ICT-based teaching.
  - Pupils are in favour of using computers at school, and most of them have a computer at home also.
  - In this instance, the positive attitude of the headteacher allows pupils and teachers to benefit from 'official' support, but this may not be the case in some other schools in Romania.

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## RESOURCING

- **Impacts, barriers and enablers**
  - The school owns 50 computers which are organised in several labs. Following a program to equip schools, the Ministry of Education provided 25 computers. The other 25 were donated by the local council, following a programme supported by the European Investment Bank.
  - Computers are not available in classrooms, so pupils need to move to the computer labs to use ICT.
  - The learning platform (AeL) is stored on a server and is accessed by pupils via the local area network (LAN).

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## THE CURRICULUM AND ICT

- **Impacts, barriers and enablers**
  - In primary schools, if teachers choose an optional subject involving computers, they have to design their own curriculum and ask for approval. Most teachers exchange ideas and lesson plans to support and enhance their lessons.
  - According to the headteacher, the AeL platform does not provide the expected level of interactivity. Additionally, it does not provide the facilities to measure pupil performance at the end of a lesson.
  - The headteacher maintains an open approach, and is aware of the positive impact that ICT makes to learning.

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## ASSESSMENT OF ICT AND ICT FOR ASSESSMENT

- **Impacts, barriers and enablers**
  - Children's work is organised in personal portfolios.
  - Children are encouraged to search for information, then select and organise it according to a set of criteria defined in discussion with their teacher. They were also encouraged to produce their own photographs and video clips, and incorporate these into presentations along with the text.
  - Pupils have basic skills in browsing the computer, creating and handling local links, and inserting pictures and video clips. They learn to work in teams to produce a shared outcome. They use GeoCities to publish their work and share it with partners from a number of European countries.
  - The required skills and knowledge are not defined, and there is no way to measure ICT skills in a national context.

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## ORGANISATION OF SUPPORT

- **Impacts, barriers and enablers**
  - Most teachers are aware of the need to integrate ICT into the curriculum, recognising that motivation is a key factor for success. However, in many cases, ICT is seen as an additional 'burden', creating extra work on top of daily curriculum obligations. This may discourage some staff from engaging with ICT.
  - There are no designated technical staff to provide assistance and maintain equipment in the computer labs. The headteacher has often been known to ask for support from friends and pupils' parents.
  - Year by year the number of teachers interested in using ICT in teaching and learning has increased, following pressure from parents and society in general. Teachers who implement and run special activities with pupils are given a financial bonus.

## 3.2 TEACHERS

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### ICT AS A TOOL FOR COMMUNICATION AND COLLABORATION

- **Impacts and enablers**
  - Some classes are involved in international projects partnering with schools from abroad, with a number of European classes working collaboratively to produce a website. Such projects motivate pupils and their parents, and produce a sense of pride in the local community.

- Pupils use email and MSN Messenger for communication purposes.
- **Barriers**
  - The internet connection is of poor quality and this can cause problems.

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## ICT AS A TOOL TO IMPROVE THE QUALITY AND EFFICIENCY OF PLANNING AND ADMINISTRATION

- **Impacts, barriers and enablers**
  - Computers are used for administrative tasks in school. The school secretariat and the finance office are equipped with computers and internet connectivity. Email is used for official communication with both local and national educational authorities.
  - The school leader is expecting to gain so called 'school autonomy'. On one hand, this gives more freedom in terms of school management, but on the other hand may put the management of the school into the hands of the local authority. This could potentially have a negative impact on the school due to the added political dimension.
  - The use of computers for administrative purposes allows school records to be efficiently maintained, updated, and communicated to both local and national educational authorities.

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## THE PEDAGOGICAL ROLE OF ICT TO IMPROVE LEARNING AND TEACHING

- **Impacts and enablers**
  - According to the headteacher, two teachers and a group of pupils who were interviewed, it is obvious that ICT improves and enhances learning and teaching.
  - New pedagogies with ICT are developing at the school.
  - The positive attitudes of the teachers, pupils and parents involved generates pressure on other teachers to start using ICT.
- **Barriers**
  - Teachers may feel anxious about integrating ICT into the curriculum, as they may feel that pupils' ICT skills and knowledge are more advanced than their own.

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## ICT SKILLS

- **Impacts and enablers**
  - Pupils' skills are the results of both the school and home environment; many parents see a computer as an important learning tool for their children.

- All parties interviewed agree that the use of ICT in teaching is changing the face of Romanian education. As an example, communication with the outside world using ICT has significantly changed the approach to language learning.
- **Barriers**
  - In some cases, unstructured use of computers, or using them for gaming, may generate anxiety and can impact upon behaviour.

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## PARTICIPATION, MOTIVATION, CONFIDENCE AND PERFORMANCE

- **Impacts and enablers**
  - Classes that take part in computer-based lessons are considered to be 'privileged'.
  - Lessons supported by ICT offer an organised framework for pupils, with clearly defined objectives and outcomes.
- **Barriers**
  - The lack of motivation of some teachers, and the non-mandatory curriculum, may lead to inequalities in education for some pupils.

## 3.3 LEARNERS

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### ICT SKILLS

- **Impacts, barriers and enablers**
  - Pupils apply both past and current knowledge and skills while discovering new opportunities to achieve the goals of the lesson.
  - Pupils are aware of copyright issues and follow the teacher's guidance on how to produce photos and video clips to combine with their text presentations. They are also aware of e-safety issues.
  - Most pupils have a computer at home; the ones that do may be more motivated by computer-based lessons.
  - Pupils are keen to explore the opportunities offered by PowerPoint for organising and presenting information on a given subject. However, they tend to use too many photos and videos, which can sometimes detract from the message of their presentation.



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## MOTIVATION, PARTICIPATION AND CONFIDENCE

- **Impacts, barriers and enablers**

- School staff are aware that the integration of ICT requires a gradual approach, and that appropriate content is needed.
- Computers should be placed in all classrooms to encourage teachers to use them as ordinary teaching tools.
- In lower and upper secondary school there is a risk that there might be too much of a focus on learning programming languages in the curriculum.

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## PARTICIPATION IN ALL ASPECTS OF SCHOOL LIFE: ACADEMIC, SOCIAL, PERSONAL

- **Impacts**

- Pupils enjoy computer games in addition to curriculum-based activities.
- Pupils are able to communicate and use the internet outside of school settings. MSN Messenger is the favourite tool of communication, which is probably associated with the use of mobile phones.

- **Barriers**

- Internet access in school is not controlled and monitored in terms of e-safety issues: for example, there are no filters or restrictions in place.

## 4. REFERENCES

- **Sources:**

- Interviews with teachers and observation of lessons.

- **Further information:**

- Discover Europe website - school projects  
([www.geocities.com/scoialagen191/school191.htm](http://www.geocities.com/scoialagen191/school191.htm)).