Case studies

13. De Triangel, Gouda, Netherlands

Reporter: based on a P2V project inspectors' visit in January 2008 – March 2009

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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.

steps

This study has been commissioned by the European Commission, Directorate General Education and Culture.

1. CONTEXT OF THE SCHOOL

De Triangel Primary School is part of a Roman Catholic school board, but is itself multidenominational (Protestant and Catholic). The school has approximately 250 pupils between the ages of 4 and 12, divided into 11 groups. The school board, under which de Triangel resides, governs 11 schools with over 3,000 pupils. The school has 21 staff members, including one school leader and one ICT co-ordinator. The school has a main building with a temporary extension, which are connected. There are 12 classrooms, spacious hallways and a central area in the main building where a mobile computer desk is placed and where pupil performances can be staged. There is a fenced-off outside play area.

2. EXAMPLE OF PRACTICE

The school uses the Cito pupil monitoring system to manage pupil records, and this is well used by all staff. Teachers use the system to make notes of pupils' progress, record problems, make notes on the home situation, and for pupil registration. Teachers can also complete an online form detailing social and emotional development of the child. Test results are administered and analysed enabling outcomes to be compared with peers: a standard facility of the software. Analysis of trends and group progress can be made, and action plans are stored in the system. The system is accessible from all classrooms.

Using the system, the school can track pupil attainment from the age of four through to the end of their formal education. School reports are created using a Word template, where teachers can easily select options and complete text fields. Summaries of pupil monitoring tests and socio-emotional comments are also presented. Parents have the option to receive the report by email if required.

All staff communication, such as minutes of meetings, are distributed only via email, and this approach has been well received by staff. Staff can access the school network and email system from home, allowing them to work on materials and data remotely. All materials, such as scanned assignments, are also available to the other schools governed by the school board.

The natural use of interactive whiteboards (IWBs) at the school is impressive. During observed lessons, teachers made good use of ICT to support explanation and instruction, using day-planning tools in the IWB software to good effect. A combination of scanned assignments, websites and self-designed instruction was used. The use of ICT in these cases supported a relatively traditional teacher-led pedagogy. Teachers who are still unfamiliar with the interactive whiteboards showed amazing confidence in using them, and successfully integrated the technology into their teaching.

3. IMPACT, BARRIERS AND ENABLERS

3.1 SCHOOL

ICT DEVELOPMENT PLAN, IMPLEMENTATION STRATEGY, ORGANISATIONAL CHANGES AND ATTITUDES

- **Impacts**
  - The school has a clear, and regularly updated, ICT policy. The ICT co-ordinator is responsible both for the policy, and the implementation of ICT for the whole school board.
  - The school sometimes serves as an ICT training centre for the other schools in the board.
  - The school aims to integrate ICT into daily use in all subject areas.
  - ICT use within the school contributes to three key goals: to make learning more efficient, to extend teaching materials and methods, and to cater for individual needs.
- **Barriers**
  - The school has taken a gradual approach to implementing ICT, which implies that there are some areas that have received less attention. The school is aware of this.
  - The approach is more pragmatic then visionary, but individual staff have a clear motivation and vision for using ICT.
  - The ICT policy needs a clearer focus on education.
  - The school would benefit from specific action plans and evaluative questions regarding ICT.
  - Although it is clear that review and evaluation of the ICT policy does take place, it is not always clear what the evaluation criteria are. In some cases, it appears that the evaluation criteria themselves are not clearly defined or well documented to give a picture of the quality of provision and future action planning.
  - The enthusiasm and effort of the ICT co-ordinator is a risk factor, in terms of the sustainability of leadership if the post were to become vacant. For example, would procedures, knowledge and ICT responsibilities of staff members be clear enough for the work to continue?

- **Enablers**
  - The school has made impressive progress in a relatively short period of time. Driven by an enthusiastic and knowledgeable ICT co-ordinator, supported by the school leadership and implemented by the school's teaching staff, the school clearly provides an ICT-rich environment.
  - The role of ICT in the school has clearly been considered and documented in the ICT policy paper.
  - Teaching staff seem well aware of the general need to integrate ICT.
  - The respective roles of the ICT co-ordinator, the support facility, the school leader and the school board are clearly described in the ICT policy paper. The policy paper also describes the types of software that are used, the selection criteria for the purchase of software, and short reflections on implications for pedagogy. The policy paper also includes reference to funding issues.
  - The ICT co-ordinator, supported by the school leader, takes great responsibility in progressing the implementation of ICT.
  - Leadership is also shown by the teaching staff who have been active in the uptake of ICT, clearly motivated by the activities of the ICT co-ordinator.
  - Planned and ad hoc meetings with the teaching staff are effective in progressing ICT issues.

RESOURCING

- **Impacts**
  - Interactive whiteboards were introduced during 2006 and 2007. New boards were introduced shortly before the visit in January 2008.
  - The school has a favourable computer to pupil ratio of 1:4. Computers are available in corridors and at the back of each classroom (two per classroom in lower years, and four per classroom in upper years). A mobile computer desk is also available in the main hall, and many classrooms are now equipped with interactive whiteboards. Computers are also available outside school times for pupils without a computer or internet access at home, which generally means that pupils have easy access to ICT when needed.
  - Despite these good ratios, it was noted that ICT equipment is limited to PCs and IWBs.
  - Teachers and pupils can access their work from network folders. Teachers have home access to email and the school network, although some complain that access is slow. All teachers and year groups have their own email account. The whole environment is safe and stimulating.

- **Barriers**
  - Access to a wider range of ICT tools, such as digital cameras, would help to develop pupils' knowledge and allow more progress to be made.

THE CURRICULUM AND ICT

- **Impacts**
  - The school has chosen to integrate ICT across all subject areas. Although there is no formal ICT curriculum, there are goals for what should be taught to each year group.
- **Barriers**
  - Goals could be more specific to ensure that all staff share an understanding of what is required, and that correct and relevant skills are taught to all pupils.
  - There should be flexibility in attaining goals depending of the capabilities of the individual pupil rather than purely by year group.
  - More attention is needed in the description and delivery of the curriculum for a wider range of ICT applications and contexts.

ASSESSMENT OF ICT AND ICT FOR ASSESSMENT

- **Impacts**
  - Measure of success within the ICT policy are stated as follows:
    - Being more able to differentiate.
    - Offering more opportunities for practice.
    - Providing pupils with the ability to develop knowledge and skills of benefit to them in the outside world, without the teacher holding their hand.
  - There is strong use of ICT to manage pupil records. The system is well used by all staff.
- **Barriers**
  - The school is hesitant about online testing methods, feeling that these may test ICT skills rather than the subject in question.

ORGANISATION OF SUPPORT

- **Enablers**
  - Technical support is centrally organised for the whole of the school board, using remote access where possible. It appeared that this arrangement, combined with the large number of available computers, ensures that the flow of learning is not interrupted when problems occur.
  - Teachers are supportive in exploring solutions when pupils have a problem, and vice versa. During the visit, pupils helped their teacher when a video presentation didn't work immediately.

3.2 TEACHERS

ICT AS A TOOL FOR COMMUNICATION AND COLLABORATION

- **Impacts**
  - Students' work is stored via an e-portfolio system, which can be accessed by both staff and parents. Parents can check their child's progress and weekly work plans online.
  - Students routinely save samples of their work to their e-portfolio, allowing the range and progression of their work to be assessed in a variety of contexts.
- **Barriers**
  - It does not appear that the school reports or monitors progress in use of ICT other than through the ICT Licence. This presents a lost opportunity to recognise the achievements of both staff and students.
- **Enablers**
  - The use of the ICT Licence has ensured that explicit assessment of ICT is taking place at Grade 3. Once a student acquires a certain skill level, they receive a diploma or certificate.
  - Online storage of pupils' work enables staff and parents to monitor achievement and share outcomes.

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

- **Impacts**
  - A strength of the school is the use of ICT for administrative purposes. Besides the pupil registration system, several other systems are in place and well used.

The school makes good use of advanced options in the Cito pupil monitoring system.

- Teachers use the system to make notes of pupils' progress, record problems, make notes on the home situation, and for pupil registration. Teachers can also complete an online form detailing the social and emotional development of the child. Test results are administered and analysed enabling outcomes to be compared with peers: a standard facility of the software. Analysis of trends and group progress can be made, and action plans are stored in the system. The system is accessible from all classrooms.
- The admin system can be used to track pupil attainment from the age of four through to the end of their formal education.
- School reports are created using a Word template, where teachers can easily select options and complete text fields. Summaries of pupil monitoring tests and the socio-emotional comments are also presented. Parents have the option to receive the report by email if required.

- **Barriers**
  - The school is missing an opportunity to identify those children who achieve very well in primary school, but subsequently underachieve in secondary and higher education. The school is aware that this happens, but does not feel that it is particularly important. Such an exercise could be used to identify risk factors leading to under achievement.

THE PEDAGOGICAL ROLE OF ICT TO IMPROVE LEARNING AND TEACHING

- **Impacts**
  - During observed lessons, school staff made good use of ICT to support explanation and instruction, using day-planning tools in the IWB software to good effect. A combination of scanned assignments, websites and self-designed instruction was used. The use of ICT in these cases supported a relatively traditional teacher-led pedagogy. Teachers who are still unfamiliar with the interactive whiteboards showed amazing confidence in using them, and successfully integrated the technology into their teaching.

ICT SKILLS

- **Impacts**
  - The school acknowledges that teachers are also learners.
  - The ICT co-ordinator has used a teacher questionnaire to gain more insight into their knowledge, skills and views on ICT, asking them what could be improved and so on.

- When teachers identify a need for training, they usually get it.

- **Barriers**
  - Professional development opportunities would benefit from being more structured and more integrated with the goals of the ICT policy paper.
  - acquires a certain skill level, they receive a diploma or certificate.

3.3 LEARNERS

ICT SKILLS

- **Impacts**
  - Pupils are confident in their use of computers. Senior pupils use PCs in classrooms and hallways to carry out assignments, look up information and to prepare presentations. In the lower years, pupils tend to work individually with software. The use of the ICT is very natural to them and they tend to support each other when problems occur.
  - Pupils' computer and internet skills are well developed. Teachers are aware of the general goals their pupils need to reach in any given year in terms of ICT skills.
  - In an early-years classroom, one teacher had personally created computer-based support materials linked to reading materials used with the children.
- **Barriers**
  - Pupils would benefit from exposure to a wider range of ICT tools and applications. For example, pupil use of digital cameras would enhance the creativity that is already evident in their presentations.
  - ICT could be better used to connect learning inside and outside the school, and make links with the wider community through international projects and similar.
  - Pupils in higher years seemed to lack awareness of how search results on the internet can be manipulated and how they should assess the reliability of online resources.

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

- **Impacts**
  - In general it is very hard to isolate the effects of ICT use with respect to improvements in learner achievement and attainment. An informal evaluation of

software is being conducted at present to assess the extent to which it has helped those teachers who have requested it.

- **Barriers**
  - Evaluations should be conducted and analysed at the end of each year, with a focus on pupil achievement and attainment.
  - The school could improve their knowledge of what is effective by applying evaluation procedures as they would with the introduction of other interventions.
  - Through a process of setting goals when ICT is introduced, planned evaluation and documenting the results of the process, the school could gain a useful insight into what works well within their particular circumstances, and why it was worth the money and effort.
  - General observations should be recorded. Staff told of a child in an early years' class who resisted learning. When provided with focused computer-based support, their concentration levels were found to increase significantly.
  - Pupil observations on the use of ICT should also be recorded, such as responses to the question: 'How has learning improved for you?'.

4. REFERENCES

- **Sources:**
  - Interviews with the head teacher, teachers and students, and lesson observations.
- **Further information:**
  - School website (www.triangelgouda.nl/)
  - P2V project: http://peerlearning.eun.org