

ICT Action School Development at Helen Parkhurst Dalton School, part II

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Abstract. The paper presents the progress of the action plan for improvement of the ICT usage at the Helen Parkhurst Dalton School for secondary education. At the start of the described action period in 2007 the ICT-usage in education was assessed through an review performed by a group of European inspectors. This assessment formed the basis for a continuous development in the school for promoting and improving the usage of ICT. This was done by addressing the observed weaknesses with special measures, and continuing the action plans which were already put in place. For four main points of criticism the following measures were taken. (1) The coherence in the ICT use was improved by appointing school wide operating coordinators. (2) The use of ICT in teaching was encouraged by offering a variety of teacher training and dedicated workshops. (3) The measurement of gains in learner achievement through ICT use was addressed by a comparative study on the effects of ICT in international learners collaboration. (4) The perspective on new ICT developments in ICT and pedagogy was broadened by purchasing new equipment, as interactive white boards, laptop trolleys and other digital devices and realizing new ICT-laboratories. One year after the inspectorates' assessment new plans arose. The leadership of the school has organized a so called 'Scenario Debate', aimed at addressing the near future of the school. In this debate the view on education has been renewed in relation to the organizational aspects. One of the outcomes of the debate was the awareness of the growing role of ICT. So plans for the near future have been set up. This paper is the second contribution in a row in order to describe action based school development.

Keywords: Integration of ICT, Secondary Education, Quality, Policy, Teacher, Evaluation, Management, Pedagogy

1. Introduction

In September 2007 an assessment on ICT in education took place at the Helen Parkhurst Dalton School in the Netherlands through an inspectorates' visit, by using the European Framework for the Evaluation of ICT in Education [1]³⁹. This

³⁹ The original European Framework for the Evaluation of ICT in Education was developed by the contribution of: Guy Ménant, Mireille Golaszewski, Michel Perez,

framework is developed as part of the P2V-project, the part in which European inspectorates collaborate⁴⁰. The framework has been tested afterwards in several countries: Lithuania, Spain, Scotland, France and Sweden. The results were discussed in a joint meeting in September 2008 leading to a final report on the project [2]⁴¹.

After the visit the Helen Parkhurst Dalton School continued its development in using ICT to improve the educational process. In the paper we will describe the actions performed in the school year 2007-2008 and in more detail the organization and results of the debate on the future of the school, carried out in the fall of 2008.

It is the ambition of the authors of this paper to report on a yearly base on the progress made in the school, since September 2007.

2. The Helen Parkhurst Dalton School

In order to understand the developments a short characterization of the school is presented and a summary of the assessment is given.

2.1 Brief Description of the School



Fig. 1 Artist Impression of Helen Parkhurst Dalton School

Helen Parkhurst (see figure 1) is located in Almere, in Dutch New Land, and is founded only 10 years ago. It is a school for general secondary education for students in the age of 12 up till 18 years. All streams are preparing for

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⁴⁰ The inspectorates work packages of P2V and P2P were developed under the auspices of SICI (www.sici.org.uk) and were coordinated by The Dutch Inspectorate of Education. P2P and P2V are initiatives of European Schoolnet (<http://www.europeanschoolnet.org>)

⁴¹ The Inspectorates evaluation team consisted of Ferry de Rijcke, Pieter Hogenbirk, Iain Lowson, Alistair Brown, Asta Buineviciute, Sven Borg, Mireille Golaszewski, Joan Escué. The date of the school visit was September 18, 2007.

intermediate and higher vocational education and university. The school concept is based on the Dalton Educational System. This means that the education is based on three principles: (1) responsibility and accountability, (2) independence and reflection and (3) relationship and collaboration. In daily practice these principles are translated into the following. The objectives for 6 (young students) to 12 weeks (older students) are fixed through so called 'curriculum lines' by the teachers in the different subjects. But the order of activities, pace and to some extent the way how to reach the objectives can be determined by the students themselves, in close agreement with the teacher. Many activities are based on collaboration with other students. Important are the reflection on the different activities and the results of the learning process in relation to collaborative and planning skills.

In the 10 years of its existence the school's population has grown from 360 up to about 2050 students, divided over five departments: A, C, D, E and Villa Parkhurst, VP. The four departments A, C, D and E are housed in a very modern building; the VP department is housed in a more informal housing. Two departments prepare for access to intermediate vocational education, one department has an emphasis on culture and arts, one department on economics and one department provides extra challenge for students that are well performing in science. There are special facilities for top sport.

Every department has its own head of department, ICT-coordinator, counselors for pupils as well as coaches for teachers and its own team of some 40 teachers and educational assistants. There is one central ICT-coordinator.

2.2 The Assessment by Using the European Framework for the Evaluation of ICT in Education

For the sake of understanding the developments in ICT in school year 2007-2008 in the school the results of the assessment of September 2007 are cited in table 1 [1]. The European framework consists of three main themes: Conditions (C1 to C4), Use (U1 to U3) and Outcomes (O1). There are a number of quality areas within each theme, eight in total. Quality indicators with corresponding evidence pointers are identified within each quality area. The assessment consists of indicators with the values 0 or 1 to 4. Their meaning is:

0. No evidence available or not relevant.
1. Bad There is hardly any positive evidence for a particular indicator.
2. Insufficient There is not enough positive evidence for a particular indicator.
3. Sufficient There is enough positive evidence for a particular indicator but improvement is possible.
4. Good Most or all evidence for a particular indicator is positive.

Table 2. ICT Assessment September 2007, Indicators for ICT Quality

Leadership	Score
C1.1 There is a clear vision for the use of ICT	0 1 2 3 4
C1.2 There is a strategy to realize the vision	0 1 2 3 4
Infrastructure and access	Score
C2.1 The available resources reflect the needs and vision of the school	0 1 2 3 4
C2.2 The deployment of ICT resources enables efficient use of them	0 1 2 3 4
C2.3 Support systems optimize the use of ICT	0 1 2 3 4
Curriculum planning	Score
C3.1 Meeting local, regional and national requirements	0 1 2 3 4
C3.2 Coherence, balance and consistency	0 1 2 3 4
C3.3 New developments in ICT and pedagogy	0 1 2 3 4
Quality assurance and improvement	Score
C4.1 Review and self-evaluation of ICT policy and practice	0 1 2 3 4
C4.2 Action planning and implementation	0 1 2 3 4
C4.3 Action monitoring and revision	0 1 2 3 4
Pupil use	Score
U1.1 Development of ICT skills	0 1 2 3 4
U1.2 Enhancement of learning	0 1 2 3 4
The teaching process	Score
U2.1 Developing pupils' ICT capabilities	0 1 2 3 4
U2.2 Use of ICT to enhance teaching	0 1 2 3 4
U2.3 Teaching staff competence and confidence	0 1 2 3 4
Administrative use	Score
U3.1 Identifying issues impacting learning and teaching	0 1 2 3 4
U3.2 Communication is supported.	0 1 2 3 4
Impact on learning and standards	Score
O1.1 Gains in broad learner achievement	0 1 2 3 4
O1.2 Effects of ICT use on pupil attainment	0 1 2 3 4

In the written report [2] the main points of criticism were:

- a lack of variety of equipment and resources;
- a limited usage of subject specific ICT-applications and hardly any use in international collaborative projects;
- an informal and not very explicit relationship between pedagogical vision and the implementation of ICT;

- a lack of awareness from the teachers of special ICT resources, specific applications, new pedagogical features for ICT use within their subjects and ICT based assessments and testing;
- the absence of a general coordination on the ICT-curriculum;
- a lack of coherence in the use of the Digital Learning Environment;
- a general lack of coherence between departments in their ICT policy and planning;
- no systematic reflection, review or evaluation on the ICT plans on one hand and on the outcome of ICT use on the other hand.

The assessment procedure and the framework were discussed in a final meeting of European Inspectors in September 2008 in Brussels. The major findings are to be found at the site of the P2V project [3].

3. Developments in School Year 2007-2008

After the assessment Helen Parkhurst Dalton School continued to carry out the special action plans for the running school year. In short the following objectives were realized in school-year 2007-2008:

- More infrastructure available; in September 2008 the following was realised:
 - wireless network
 - laptop trolleys (now 8 with 140 laptops)
 - 395 fixed computers: computer ratio: 1 to 3.8
 - some 220 computers for teachers
 - some 10 interactive whiteboards
- Increase of teacher training by a system of voluntary vouchers;
- Supporting and establishing good ICT-practices by participating in the national Grassroots project;
- Developing a research project on ICT effectiveness in international collaborative projects;
- Newly built studios for music and art with all kinds of digital equipment;
- Further development of the Digital Learning Environment.

The coherence between the departments was addressed by co-ordinated action plans. In the spring of 2008 Helen Parkhurst Dalton School has evaluated itself by means of the so-called 'i-score rating', a new national initiative⁴². This rating system was set up by the Dutch Teachers Union of Informatics & Information Technology in close co-operation with the Dutch inspectorate and on the basis of the framework mentioned. In order to determine the i-score a website has been set up, where participants can fill in a questionnaire. A school then got log in codes for teachers and students, and they are asked to give a reliable image of the ICT situation in their school. On that basis the system assigns a rating of 1 – 5 stars.

⁴²An explanation of the i-score is available in Dutch on www.i-score.nl.

Helen Parkhurst was considered to 'earn' a 4 star rating. Every year the score has to be updated in order to keep it tenable.

4. Developments in School Year 2008-2009

At the end of the course of 2007-2008 leading teachers and deputies in the school had to develop in collaboration with their specialist colleagues a so called 'year action plan'. This is the rule for the school as a whole, for every single department and also for every school wide theme, such as pupils care, (in service) teacher training, quality assurance and ICT. We will briefly describe the overall core issues to be addressed in the school year 2008-2009 and go into more detail for the plans for ICT.

4.1 Key Issues for School Development

On the basis of several interviews with all personal, with the students parliament and with the council of parents five key issues for development of the education in the school were defined and elaborated on. These were:

- Revitalising the Dalton identity;
- Further development of pupils' coaching and skills development in mentor groups;
- Improving the coherence between departments by common working gatherings;
- Further development of personal competences;
- Extending the use of ICT and setting up a system for international projects.

On top of these key elements for school innovation a so called 'Scenario Debate' was set up. The school faces some luxury problems. Because of the growth of the number of students the internal division of classes over the departments was not well-balanced any more. But this division over departments was well thought of and based on firm pedagogical starting points. So we could not debate on the organisational structure without discussing the pedagogical values shared among the personal. At the time this paper has to be submitted the 'Scenario Debate' has provided a series of proposals for improving the quality of education by changing some organisational aspects, but also rethinking the Dalton values of the school. In that the debate connected the practical issues of the departments to the basic issue of revitalising the Dalton identity. For the sake of describing the developments in ICT it is important that one of the core elements that came out of the 'Scenario Debate' was the importance of ICT and the use of it in coaching students and in subject didactics.

4.2 The Running Action Plan for ICT

In the action plan for ICT for the school-year 2008-2009 the following elements are brought up:

- Further and advanced educational use, e.g.
 - web quests for modern languages
 - more assignments on the DLE (Digital learning Environment)
 - experiencing the digital studios:
- Pilots on digital examinations;
- Setting up a web portal for more involvement of parents;
- Use of ICT for learners tracking;
- A next round of vouchers for voluntary teacher training;
- The introduction of netbooks for all teachers.

The current situation (January 1, 2009) is:

- Some subject teachers in some departments have stored their learners assignments in the DLE;
- The foreign language English is taught merely by materials on the DLE;
- Operational plans are written for implementation of
 - a system for learners tracking
 - a programme for cultural activities in lower secondary using the studios
 - the web portal
 - the intranet
- The introduction of netbooks for all teachers, completed with a risk analysis;
- One pilot on digital examinations in Science is started;
- Vouchers for voluntary teacher training are organised and two are organised;
- The council of parents has provides budget for grassroots for improving teaching methods;
- The research project on ICT effectiveness in international collaborative projects has been performed; the results were not very encouraging, because of practical problems in the international collaboration. A new project will start up and try to establish better conditions for better results;
- In the course of 2009 Microsoft will decide if Helen Parkhurst Dalton School will become a so called 'Innovative School' in the Partners In Learning Program⁴³.

4.3 The Emerging Vision on ICT in the Near Future

As a result of the 'Scenario Debate' there was a lot of emphasis on ICT and making the use of it profitable to achieve goals which were considered as basic or important. In short the following ambitions were formulated:

- (Parts of) the curriculum are fully organised through ICT;
- An ICT skills development line for students will be available;

⁴³ The Partners In Learning Program is sponsored by Microsoft and is aimed at new ways of teaching and learning by the net-generation. The Dutch site is: <http://www.microsoft.com/netherlands/onderwijs/pil/default.aspx>. There are many other sites to visit.

- There will be full use of ICT for reflection, portfolios and learners tracking;
- ICT is widely used in examinations and tests;
- Laptops/netbooks for all teachers are in full operational use;
- Full transparency is reached by completion of the web portal and the intranet;
- The intention is made to develop a business model for netbooks for all students

5. Conclusions and further work

The assessment of the group of inspectors using the European framework has given the Helen Parkhurst a chance to evaluate the ICT situation, educational and technical. This was at a moment in time where many decisions had to be made and where the course has to be set for the following periods. The current action plans have addressed the findings of the inspectors' investigation and also reflect the direction of development the school has chosen. The main points of criticism were addressed by concrete measures.

A variety of equipment was purchased; workshops on the educational use of ICT were organized; teachers were stimulated to use ICT in all kinds of ways; the Digital Learning Environment is promoted, however still a bit reluctant; the coherence between departments in their ICT policy and planning is improved; a systematic reflection, review or evaluation on the ICT plans is in due course.

According to the way the 'Scenario Debate' has had its output, the role of ICT is without questioning. Therefore the use of ICT will be extended the coming years and play a major role in revitalizing the Dalton vision.

Looking back at the assessment through the inspectorates' framework we conclude that the following indicators have improved:

C3.2, the coherence between ICT and development has increased

C3.3, new developments have been investigated and promoted

C4.3, action monitoring is in place by regular assessments

U2.2, the enhancement of teaching is underway, but needs to be improved

O1.1 and 1.2, some attempts have been made to measure the impact of ICT but this is still a very difficult indicator to meet.

By this action research and by the 'Scenario Debate' which has been organized, we hope to improve education both in quality and learning outcome.

References

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