

Subject:

eSchools Data Warehouse

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Target Audience:

- Principals and Boards of Governors of all grant-aided schools;
- Education and Library Boards;
- Council for Catholic Maintained Schools;
- Council for the Curriculum, Examinations and Assessment;
- Northern Ireland Council for Integrated Education;
- Comhairle na Gaelscolaíochta
- Education and Skills Authority Implementation Team

Summary of Contents:

Information for schools on the introduction of the new eSchools on-line data warehouse.

Enquiries:

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Governor Awareness:
Essential

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Information for schools

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None

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None

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DENI Website:
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Introduction

1. This is to give schools advance notice that the new eSchools on-line data warehouse will become fully operational from September this year. Below you will find information on the background to the warehouse service, details of what it will do and when it will do it, an outline of who will have access to it and the benefits eSchools will have for schools and the education sector as a whole.
2. Schools will also find information on what they need to do to prepare for the introduction of the new system.
3. This Circular describes the warehouse in general terms. More detailed and practical information will be made available in tandem with the associated training.

Background

4. In 2003, following a major review of the N.I. Education and Library Boards' Information Systems Strategy, Classroom 2000 (C2k) was commissioned to take forward the procurement of a new eSchools Data Warehouse service that would assist the Education and Library Boards in complying with Government directives and achieving the targets for Electronic Service Delivery. Following approval to proceed in 2007, a contract to develop and implement this new service was awarded to HP in April 2008.

Function of the warehouse

5. The secure on-line warehouse will store data collected electronically from the management information systems of schools, education and library boards and other education partners. The stored data will be validated (see paragraph 15) and used to update a range of business systems across the boards and to produce a range of standard and customised reports for all schools and education partners. Schools will be able to analyse the information provided in the reports, using key indicators which will allow them to assess their own performance and compare it with that of other schools of the same type or those in a particular geographical region. Access rights to the data and information, and security arrangements, are described in paragraphs 19-22.

Importance of eSchools - to DE, Boards/ESA, and education service

6. Research evidence demonstrates that the availability of data for use at system, school and individual teacher level is critical to raising standards. eSchools provides a unique opportunity to bring together all the relevant streams of data, thus meeting the need for a shared source of data which is easily accessible and uses common data standards, a prerequisite for the effective use of data.
7. A number of the conclusions of the Public Accounts Committee review of literacy and numeracy in Northern Ireland relate to the need for improved analysis of data for the purposes of planning and continuous improvement. The effective use of ICT is central to the Department's and the education sector's main policy drivers, namely school improvement and the raising of literacy and numeracy standards across the system. The Department's new school improvement policy, set out in "Every School a Good School", prioritises raising attainment through a more effective use of data, with a stronger focus on pupil outcomes and school accountability.
8. Currently DE collects information from schools through a number of exercises, including

the Annual School Census, and others relating to School Examinations, Pupil Attendance, Qualifications and School Leavers Destination. These data are subjected to rigorous data validation checks and the information is used to inform various policy areas such as those relating to school funding, PSA targets, SEN and School Improvement.

9. Data will continue to be validated with the data providers and it will be the data providers' responsibility to ensure that data are corrected and available for re-collection into the warehouse whenever inaccuracies are detected. Overall, this will drive up the quality of the data and should result in more accurate data for use by schools, ELBs/ESA and DE in their analysis of performance management.
10. The future provision of reliable data to DE, and to all involved in the collection, processing, analysis and dissemination of school-related information, is based on the successful development of the eSchools project and its importance cannot be underestimated.

Benefits for schools

11. The chief benefit of eSchools will be that schools will have on-line access to current data which will assist them with self evaluation and school improvement, enable them to obtain performance information and identify trends, and compare themselves with other similar schools.
12. The ability to collect data automatically from the data warehouse should result in a reduction in the number of requests for information to schools from the Department and other bodies. This in turn should reduce the work required of schools in preparing responses to those requests. However, where information needs to be sought from schools which is not available on SIMS, and is not therefore contained in the warehouse, schools will be asked to complete online forms (e-Forms) giving the necessary information. If it is appropriate to do so (where, for example it will involve a regular return), the information taken from the e-Forms will be added to the contents of the warehouse.
13. The validation process, which applies to all systems in schools, boards, and the Department, will ensure that those systems are using one agreed set of information in any given area.

Timetable

14. Data collection from all schools commences in April 2009 and the reporting aspect of the service will commence with a pilot in a small number of schools during May/June. The implementation timetable is as follows.

Month	Activity
April	Collection of data from all school systems begins.
May/June	Reporting to pilot group of schools (29 schools of all types) begins.
June	Training for post-primary and special schools begins.
July	
August	Examinations results collected.
September	Reporting to all post-primary schools and special schools requiring examinations results begins. Training for primary schools begins.
October	Reporting to all primary schools and special schools not requiring examinations results begins.

Data collection, validation and reporting

15. Data will be automatically collected directly from the MIS system in each school, and will be validated by a series of comprehensive checks. Schools will receive validation reports highlighting any potential data issues, such as missing or apparently incorrect entries.
16. At the end of each month, the validated data will be loaded into the data warehouse. This data will be used to produce a series of performance reports to schools which will cover a range of areas including:-
 - School Context
 - Attendance / Absence
 - Enrolment
 - Assessment
 - Examinations
 - Finance
17. A list of the 24 reports which will be available to schools is attached as Appendix A. Aggregated information relating to these areas will be made available to authorised users within DE, ESA and the Education & Library Boards.

Summary of data collected by eSchools

18. A complete list of the data which will be collected and used to populate the data warehouse is provided in Appendix B, grouped under the following headings:
 - School data
 - School Finance data
 - School additional Census data
 - Student data from SIMS and ELB EMS systems
 - Teacher data from SIMS

Data access and security

19. The principle of data access in eSchools is that each school will have access only to its own data: and (until the establishment of ESA) each board access only to schools in its own area. The Department (including the ETI) will have access to both board and school data.
20. The principal of each school will be assigned appropriate rights of access, through a web browser, to the set of monthly reports for the school. The security to access these reports is controlled using the normal C2k user identity and password for Principals, who may only access reports relating to their own institutions.
21. A limited number of users in each of the 5 Education and Library Boards will be assigned appropriate access rights to create or modify reports within their particular Board area. ESA and DENI authorised staff will also be granted access to data relevant to their information needs at appropriate levels, based on roles and organisation.
22. From a security perspective, it is important to note that data extracted from any source will be encrypted while in transit to the data warehouse.

What schools need to do

23. It is vital that the data collected by eSchools from schools' C2k MIS systems is, and remains, complete, accurate and up-to-date. Where this is not currently the case, schools should take steps to ensure that the appropriate information is entered as soon as possible and all schools should ensure that procedures are in place to keep it current and correct. A particularly pressing issue is teacher information: schools should ensure that the 'Teacher Number' field is correctly completed within SIMS.net.
24. The validation reports referred to above will identify missing or incorrect data, but work on correcting problems can be minimised, or avoided completely, by ensuring that MIS systems are kept up-to-date.
25. C2k will help schools by publishing comprehensive data checking and editing procedures for schools on C2k Exchange.

Training and Support

26. C2k will provide ongoing support to help schools respond to eSchools validation reports. These reports will give details of inaccurate or incomplete data found in a school at the data collection stage. C2k will also offer training in the interpretation of eSchools monthly analysis reports. Support requests can be logged through the C2k Service Desk: and additional eSchools support documentation will be made available through C2k Exchange and the eSchools Portal.
27. The training for post-primary and special schools will commence in June: that for primary schools in September. Each school will be asked to send its principal and (if necessary) an additional member of staff to attend the training.

EBL FITZSIMONS
Qualifications and ICT Team

K McCULLOUGH
Statistics and Research Branch

ESCHOOLS: LIST OF REPORTS TO SCHOOLS (*M = Monthly, A = Annual*)

No.	Focus	Working Name	Frequency
1	Absence	Absence (School)	M
2	Attendance	Attendance Trends (School)	M
3	Attendance	Attendance (School)	M
4	EAL	EAL (School)	M
5	Enrolment	Enrolment (School)	M
6	Ethnicity	Ethnicity (Year Group) (School)	M
7	Ethnicity	Ethnicity (Multiple Factors) (School)	M
8	Finance	Finance Summary (School)	M
9	KS 4 / GCSE	KS 4 Step Tables	A
10	KS 4 / GCSE	KS 4 Indicators: Thresholds % 5A*-C etc. (school)	A
11	KS 4 / GCSE	KS 4 Indicators: APS % 5A*-C etc. (school)	A
12	KS 4 / GCSE	KS 4 Indicators: Thresholds, % 5A*-C etc. (School) - current year	A
13	KS 4 / GCSE	KS 4 Indicators: APS, % 5A*-C etc. (School) - current year	A
14	KS 4 / GCSE	KS 4 Subject Analysis Thresholds (School)	A
15	KS 4 / GCSE	KS 4 Subject Analysis APS (school)	A
16	Post 16 / A level	GCSE to A Level Progression: all subjects (School)	A
17	Post 16 / A level	Post 16 Indicators: % A-E, % A-B (School) - Thresholds - trends	A
18	Post 16 / A level	Post 16 Indicators: % A-E, % A-B (School) - APS - trends	A
19	Post 16 / A level	Post 16 Indicators: % A-E, % A-B (School) - Thresholds - current year	A
20	Post 16 / A level	Post 16 Indicators: % A-E, % A-B (School) - APS - current year	A
21	Religion	Religion (School) & Trend	M
22	School Context	School context summary (School)	M
23	School Summary	School Summary Self Evaluation Report (Post-Primary)	A
24	SEN	SEN (School)	M

Complete list of data collected by eSchools

School data from SIMS

DENI Number
ELB
School Name
School Type
School Management Type
Principal Name
School Address
The school telephone number.
The school fax number.
The school email address.
School Gender
Parliamentary Constituency
District Council
Urban or Rural Indicator

School Finance from FMS (or online form for schools without FMS)

Financial Year
Annual Budget
Actual Spend Year to Date (YTD)
Invoiced Spend YTD
Committed Spend YTD
Budget allocation per Period.

School Additional Census (collected via online Form)

Number of special units in the school
Number of teaching periods
Number of pupils arriving to Northern Ireland school
Numbers of pupils leaving Northern Ireland school
The national curriculum year group
The number of pupils in the year group who are NOT resident in Northern Ireland
The number of possible attendances in the census year for the year group.
The number of present or AEA attendances in the census year for the year group.
The number of authorised absences in the census year for the year group.
The number of unauthorised absences in the census year for the year group.
Projected number of pupils in the National Curriculum (NC) year.
Projected number of pupils being taught in a special unit in the NC year.
Projected number of pupils being taught in an Irish medium unit in the NC year.
Total projected number of pupils in the NC Year
<p>The age category.</p> <p>The category effectively specifies the year group the pupil is projected to be in (Nursery or Reception) and an age range.</p> <p>Allowable values are:</p> <p>Nursery Age Under 3</p> <p>Nursery Age At 3</p> <p>Nursery Age 4 and Over</p> <p>Reception Age Under 3</p> <p>Reception Age At 3</p> <p>Reception Age 4 and Over</p>
Number of full time pupils in the age category.
Number of part time pupils am
Number of part time pupils pm

Student from SIMS

The student's unique pupil number (UPN).
The student's legal surname.
The student's legal forename.
The student's preferred surname.
The student's preferred forename.
The student's middle name(s)
The student's address.
The student's gender.
The student's date of birth.
The student's ethnic origin.
The student's first language.
English as an Additional Language
The student's religion.
The student's admission number to the school.
The student's Unique Candidate Identifier.
The curriculum year in which the student is taught, for example: Curriculum Year 7 Curriculum Year 8 14 Curriculum Year 14
Pupil attends Irish Medium Unit
The status of the student. Allowable values are: On roll Student is on the school roll (i.e. currently belongs to the school). Current Student is not on the school roll but takes some classes at the school. Leaver Student has left the school.
The date the student was admitted to the school.
The registration group the student belongs to.
Indication whether or not a student is in care.
Indication whether or not a student is in part time education. T Student attends part time. F Student attends full time.
School notified of a medical condition.
Flag indicating whether or not the student is a boarder at the school.
Flag indicating whether or not the student is entitled to free school meals.
Flag indicating whether or not a student pays fees.
The leaving code.
The description associated with the leaving code.
The destination that a leaver has gone to (e.g. name of the new school).
The SEN stage.

The date the SEN started.
Guardian in Forces indicator.
Student Assessed Disabled Flag T Student Assessed Disabled F Student NOT Disabled
Parents in Receipt of Income Support / Job Seekers Allowance (Nursery Pupils)
Previous Educational Experience (Year 1 Pupils)
Key Stage 2 Results in English & Maths (Year 8 Pupils)

Student Contact Data from SIMS

The priority of the contact within the list of contacts for the student. (A student can have more than one contact)
Salutation of student's contact.
The surname of the student's contact.
The first name of the student's contact.
Gender of the student's contact.
Relationship of the student's contact with the student.
Indication whether or not the contact has a parental responsibility to the student.
Address of the student's contact.
Work Address of the student's contact.
Home telephone number for the student's contact.
Main telephone number for the student's contact.
Mobile number for the student's contact.

Student Attendance and Absence from SIMS

The attendance code.
The session. Allowable values are: AM PM
Possible Attendances

Student Exam (Post Primary) Entry from SIMS

<p>The qualification, for example:</p> <p>GCE</p> <p>GCSE</p> <p>GNVQ</p>
<p>The subject code of the subject to which the qualification applies. These codes are issued by the Qualifications and Curriculum Authority. For example:</p> <p>2210</p> <p>2220</p> <p>2230</p>
<p>The subject to which the qualification applies. These codes are issued by the Qualifications and Curriculum Authority. For example:</p> <p>2210-Mathematics</p> <p>2220-Mathematics (Mechanics)</p> <p>2230-Mathematics Pure</p>
<p>The result set with which the qualification is associated. For example:</p> <p>June Entries 2006</p> <p>June Entries 2008</p>
<p>The qualification body providing the qualification, for example:</p> <p>OCR-01</p> <p>EDEXL/GCE-11</p> <p>EDEXL/GCSE-10</p> <p>WJEC/GCSE-40</p> <p>WJEC/GCSE-41</p> <p>AQA-70</p> <p>NICCEA-61</p>
<p>The level at which the qualification was taken, for example:</p> <p>GCE/A</p> <p>GCE/ASB</p> <p>GCSE/FC</p> <p>GCSE/SC</p> <p>GCSE/DA</p> <p>GNVQ/I</p>

Student Exam (Post Primary) Result from SIMS

<p>The season with which the qualification is associated. For example:</p> <p>June Entries 2006</p> <p>June Entries 2008</p>
<p>The result set with which the qualification is associated. For example:</p> <p>June Entries 2006</p> <p>June Entries 2008</p>
<p>The process with which the qualification is associated, for example</p> <p>Entry</p> <p>Forecast</p> <p><u>Result</u></p>
<p>The qualification body providing the qualification, for example:</p> <p>OCR-01</p> <p>EDEXL/GCE-11</p> <p>EDEXL/GCSE-10</p> <p>WJEC/GCSE-40</p> <p>WJEC/GCSE-41</p> <p>AQA-70</p> <p>NICCEA-61</p>
<p>The qualification, for example:</p> <p>GCE</p> <p>GCSE</p> <p>GNVQ</p>
<p>The level at which the qualification was taken, for example:</p> <p>GCE/A</p> <p>GCE/ASB</p> <p>GCSE/FC</p> <p>GCSE/SC</p> <p>GCSE/DA</p> <p>GNVQ/I</p>
<p>The subject code of the subject to which the qualification applies. These codes are issued by the Qualifications and Curriculum Authority. For example:</p> <p>2210</p> <p>2220</p> <p>2230</p>

The subject to which the qualification applies. These codes are issued by the Qualifications and Curriculum Authority. For example: 2210-Mathematics 2220-Mathematics (Mechanics) 2230-Mathematics Pure 2250-Mathematics (Applied) 2260-Mathematics (Statistics) 2330-Mathematics Further 4010-History 5750-Spanish
The grade of the qualification obtained, for example: A* A B C
The number of points the qualification is worth, as defined by QCA
NICCEA G27 H Result Grade F

Student Assessment from SIMS

The result set with which the assessment is associated. For example: Key Stage 3 Validated Result
The date of the result.
The type of result. For example, the result may be a grade or a percentage (marks-integer).
The aspect code. For Key Stage 3 results the code KS3 subject strand. For example: SC AT1
The description of the aspect. For example: SC AT1: Scientific Enquiry (NI)
The result

Student School History from SIMS

Date the student was admitted to the school.
Date the student left the school.
The enrolment status of the student.
DENI No of the destination school.
Name of destination school.

Student Special Education Need from SIMS

Special education need type code.
The ranking of the special education need. For example: 1, 2 or 3

Student Provision Special Unit from SIMS

The code of the type of provision for a student. 1 Time in Special Unit
The description of the type of provision for a student
The date the student started spending time in the special unit.
The date the student finished spending time in the special unit.

Student data from ELB EMS systems

The student's unique pupil number.
The student's gender.
The student's ethnicity.
The student's date of birth.
Special Education Needs indicator. 0-5.
Registered as disabled.
The student's NC year.
DENI Number of student's school.
Name of student's school.
Management type of student's school.
Type code of student's address.
Correspondence Address

Student Suspension and Expulsion data from ELB EMS systems

"SUSP" for suspensions, "EXPL" for expulsions.
The reason for the suspension/expulsion.
The start date of the suspension/expulsion.
The number of days of the suspension/expulsion.
Indication if the suspension is continuous.

Student Free School Meal data from ELB EMS systems

The type of the claim. For example, FSM01
The code of the claim.
The status of the claim.
The start date of the claim.
The end date of the claim.

Teacher data from SIMS

The salutation of the member of staff.
The legal surname of the member of staff.
The legal forename of the member of staff.
The preferred surname. of the member of staff.
The preferred forename. of the member of staff.
The middle name(s) of the member of staff.
The gender of the member of staff.
The date of birth of the member of staff.
The employment type code of the member of staffs employment / contract.
The employment type description. For example, whether the member of staff is on a permanent or temporary contract.
The number of hours worked in a week.
The number of weeks per year that the member of staff is contracted to work.
The start date of the member of staff's contract.
The code associated with the member of staff's post.
The description of the member of staffs post. For example, Head of Department.

Teacher Absence from SIMS

The leaving code
The description associated with the absence reason code
The start date of the period of absence.s
The end date of the period of absence.

Teacher Class data from SIMS

The class taught by the teacher. For example, 10A/Gg
The subject taught in the class. This is a SIMS subject code, not a QCA subject code. For example, Gg for Geography
The number of students in the class.