Considerations in selecting a school management information system

Introduction

This guidance is intended to highlight considerations for schools when selecting a new Management Information System (MIS). It is not intended to be an exhaustive list of requirements, which will be specific to the particular establishment. While many MIS suppliers will offer all or most of the facilities outlined in this paper, it may well be that in some cases schools will be best served by purchasing different elements from different suppliers.

This information makes no assumption that the MIS is to be sourced from a single supplier (although it could be), but that all of the modules and facilities outlined here should be able to work in an interoperable way, sharing common data with each other, and under a single data management and security protocol.

Whilst most of the attributes described would be applicable to any school MIS, there may be some differences in the requirements of nursery, primary schools, secondary schools, maintained schools, free schools and academies.

Features

Data management, transfer and standards

The facility to enter and store all data items required for management of the school, including information to monitor and support pupils, manage staff, manage school assets and facilitate planning. Pupil information should cover at least the contents of the Common Transfer File, meet the requirements of all the Department's statutory data collections and meet the teaching and management needs of the school. (Further information on the Common Transfer File can be found here.)

Systems should ensure that there is minimal duplication of information and that processes should be automated to avoid errors and inconsistencies, with data being validated on entry/import. The ability to transfer the data between modules within a school, between schools, to the LA and other agencies such as the DfE and STA is a critical feature of a MIS.

Potential suppliers should ensure that all data generated by the Establishment is accessible and exportable in an open and interoperable format.

Reporting

Systems should produce the range of reports required to support learning and management in schools. Ease of use and functionality are key. Simple reports should be menu-based and pre-

defined for the users, whilst reports of intermediate complexity should be menu driven or use "wizards" enabling most users to create them with minimal training. The development of complex reports should be available through a simple programming interface. A third party tool may well be the most appropriate and effective solution.

All types of report should be available from simple list reports to more complex mail merges, cross tab reports and graphs and should be available for publication in a variety of formats e.g. pdf; doc and rtf.

Support

User support is vital for any MIS and even more so for users new to the system. One of the biggest obstacles to changing systems is the thought of discarding the expertise in the 'old' MIS that has been built up within a school, or more precisely the time and investment required to develop a similar level of expertise in the new system. A number of schools and Local Authorities have managed this transition and it has been clear that the quality of support through this process is fundamental to its success. Support must be thoroughly considered and agreed well in advance. It should include a detailed project plan, to include training in the use of the system, transition procedures and a helpdesk and support team to answer queries and deal with any issues that need intervention.

A well-considered Service Level Agreement should be drawn up and agreed in advance with suppliers.

Security

A school's MIS will contain a large amount of sensitive data about children, parents, teachers and other associated personnel. Clearly such a database needs a robust authentication procedure before users can access any part of it and in addition strict business rules must be applied that control the exact data items that may be accessed. Edit, view and restricted access roles should be available and applied to all fields including User Defined Fields. Predefined groups should not be assigned as a default. Access rights should be at field level and must be reflected in the fields accessible through any reporting tools. Access to the system should be at a minimum through user ID and strong, frequently changed, passwords with additional use of biometrics an option if appropriate.

Compliance with the Data Protection Act (DPA 1998) is clearly essential. Privacy Notices should encompass all data sharing activities and should be generated for all data collection processes such as data collection sheets, emails, web forms etc.

Remote Access

In order to achieve full availability, the MIS must have the capability of being accessed from any suitable hardware, at any location, at any time through the internet using an e-portal or similar. As a result the transfer of data must be secure and the access point subject to strict password controls.

In short the MIS should be available, with appropriate restrictions and security, at any place, at any time and be accessible through a variety of hardware options.

Messaging

The MIS should act as a conduit for the creation, transmission and receipt of all types of messages. These may be telephone voice messages received via any telemetry system and captured by the system; emails from inside or outside of the school intranet; SMS texts sent to an approved school mobile number; emails sent via a web-based email system for parents; short messages sent via the web portal; instant messaging; digitised documents and any other approved method of contact.

Alerts

Alerts are a critical part of an MIS. They must be easy to set up and flexible in terms of recipients, mode of receipt, activation levels and complexity of initiation thresholds.

Functions

Assessment management

The assessment software should provide all of the flexibility and usability of the teachers' traditional mark book with the added functionality of a software tool which will support analysis, predicting, standardisation and statistical modelling through an intuitive interface.

Admissions

The ability to seamlessly import new admissions data into an MIS is essential for the continued learning of the pupil with the added advantage of reducing data input into the system for administrative staff.

For schools that are their own admissions authority the MIS should be capable of importing the appropriate admissions application and keeping records of appeals by parents.

Attendance

The key here is seamless capture of attendance at source via a PDA, laptop, swipe-card or similar. The ability to easily capture lesson by lesson attendance as well as am-pm registration is an added advantage particularly for secondary schools. In this latter respect the module needs to work in tandem with the timetabling and options modules.

The software should enable the proactive monitoring of attendance patterns, alert appropriate staff to unusual activity and activate intervention when key critical points are reached.

Timetable management

A timetabling system or module should support all of the modelling functionality required including rooms; times; locations; special needs access; staff allocation, pupil options, travel time; non-standard timetable cycles etc. Ideally it should enable separate timetable periods for different parts of the school, e.g. for the sixth form.

Pupil Options

The facility to accommodate options, particularly for years 9 to 11, to facilitate curriculum planning and timetabling should be incorporated into the MIS with the additional functionality to handle diplomas and non-standard requirements.

School development planning

The system must be capable of storing the overall school development plan in an appropriate format. It must cater for all levels from whole-school, through departmental to teacher lesson plans. It must also hold resources required and enable forecasting and modelling for future planning with appropriate links to finance, asset management and assessment etc.

Special Educational Needs (SEN)

The MIS must cover the statutory administration and reporting functions that are required by the law. In addition it should enable the efficient and effective management of the education and well-being of SEN pupils by assisting practitioners to develop learning/education plans, assimilate progress and past achievements and monitor and report on progress at a micro level.

Behaviour management

Both positive and negative aspects of behaviour should be recordable on the system. The system should allow the recording of action taken and outcomes.

Financial management

Where financial management is provided by a separate system (either from the Local Authority or via another system), the MIS must be capable of integrating with the finance system. Full audit trails and security protocols must be in place.

The recording of dinner, trip, school fund monies etc, should be a feature of the MIS and the MIS/Finance systems should accept all payments (including from any cashless catering systems or i-payment facility), have full audit trails and authentication and be capable of printing receipts, remittances and cheques as appropriate.

Document management

The system must be capable of the storage, retrieval, classification and archiving of documents including full metadata. Regardless of how the data is stored, the system should be capable of importing and exporting all standard formats.

The system should support the management of pupils' coursework by enabling the storage, retrieval, classification and archiving of pupils' coursework materials, whether as submitted for examination, as part of pupils' day-to-day work or for after-school activities. Digitisation of the materials together with metadata for identification must be available.

Library

The MIS should have the option to run a fully functional library system including reference, lending, borrowing, returns, reminders and fines system. It should also be available online and utilise electronic copies where appropriate. The system should be adaptable for all types of schools.

Personnel management

The system should enable the management of personnel records, job evaluation, pay scales, training and development, attendance, sickness etc. enabling the generation of statutory returns and linkage with financial management systems to enable a full business model of the school. Where HR functionality is provided externally (e.g. by the LA) the MIS should link appropriately with the external HR systems.

Cost

Schools are encouraged to consider value for money rather than basic cost. In looking for a system which meets your requirements pure cost should not be the defining factor. In considering costs, it is important to take all the costs incurred over a period of time (whole life costs) into consideration. The following are some of the charges which may be incurred – there may be others.

- Initial license – this is for the initial purchase of the software.

- Transfer costs – these are costs that may be incurred where a school switches supplier and requires a new database to be set up with some or all of the data held on their previous database transferred to the new database.

- Annual maintenance fee – this is an annual charge levied by most suppliers to cover the cost of further developments to the system, for example to keep it in line with statutory reporting requirements.

- Support fee –Support can come from either a local authority support team (not necessarily from the school's home LA) or direct from the supplier and schools are advised to consider their expertise and purchase an appropriate level of support. Support is a potentially significant area of expenditure, and requirements for support should be considered and specified in the same way as the procurement of the system. Users should consider the level of internal expertise available and keep external support requirements to an effective minimum in order to reduce costs.

- Consultancy fees – these may be incurred if the school asks the supplier (or a third party) to undertake bespoke development work for them.

If further advice on developing your statement of requirements is required, we would be pleased to help. Please contact our central e-mail address which is schools.ictsupport@education.gsi.gov.uk