EVALUATION OF CAPITAL MODERNISATION FUNDING
FOR ELECTRONIC REGISTRATION IN SELECTED
SECONDARY SCHOOLS

Geoff Lindsay¹, Daniel Muijs², Dimitra Hartas³ and Sue Band¹

¹Centre for Educational Development, Appraisal and Research (CEDAR), University of Warwick, ²University of Manchester, ³Institute of Education, University of Warwick

Introduction

This report presents evidence from a study of the government’s capital modernisation programme to support the installation of e-registration systems in secondary schools in England with the highest levels of unauthorised absence provided they did not already have an e-registration system other than one based on an optical mark reader. These are electronic systems that enable schools to take the register twice daily, as a minimum, to meet legal requirements. In practice, and especially over the course of this 3-year project, additional facilities increased substantially, e.g. to include lesson monitoring and means to alert parents by text message. Hence, this was and continues to be a rapidly evolving field: in the near future it may be expected that greater use will be made of biometric data, for example. A total budget of £11.25 million was made available to fund systems in 538 schools, starting from 2002. The evaluation took place over the period April 2002 to December 2005.

The aims of the study were to examine:

• The impact of e-registration systems on schools’ unauthorised and authorised absence, including internal/post-registration truancy
• The efficiency, effectiveness and usefulness of e-registration systems, including a comparison between systems
• The wider effectiveness of e-registration contributing to links with Local Authorities and in particular Education Welfare Services

Key Findings

• Electronic registration can play an important role in helping schools with high rates of absence to improve attendance but as one of a broad range of initiatives including the creation of a positive school climate and developing a relevant curriculum.
• The rates of both unauthorised and authorised absence in the study schools have shown reductions which are greater than the national trend.
• Academic achievement, as measured by GCSE Grades A*-C or equivalent, increased in e-registration schools to a greater degree than the national average.
Although most schools found the setting up and implementation of their system relatively straightforward, a significant minority of schools experienced substantial initial difficulties. Nevertheless, once established, four out of five schools rated their system as meeting their needs.

E-registration saved time in the taking of registers but overall there was no clear time-saving for teaching or administrative staff. This was due to two types of factors:

- Positive factors, e.g. schools having more data which they found useful, but needed to analyse and act upon
- Negative factors, e.g. faults in the system and incompatibility between the e-registration and other data management systems within the school.

Lesson monitoring was particularly beneficial, providing a form of continuous attendance monitoring over the day

There were benefits from quick and easy notification to parents of their child's absence.

E-registration was considered good value for money by two thirds of these schools, but was rated only seventh out of nine factors for reducing absence; the most effective were considered to be the creation of a positive school climate and developing a relevant curriculum.

Methods

Visits were undertaken to 46 schools on two occasions to interview a member of the senior management team (SMT); Year 7, 10 and 11 tutors; attendance administrative officers and educational welfare officers. Third visits were also undertaken to a small number of these schools at the very end of the project. A total of 414 interviews were carried out. Surveys were carried out with the remaining project schools in 2004 and 2005 with response rates of 66.7% (N = 307) and 65.6% (N = 300) respectively and interviews were held with 10 suppliers of e-registration systems. Finally, an analysis was conducted of the DfES database for school level attendance and achievement data to compare the project schools with the national picture.

Summary of findings

a) Impact on absence and achievement

Schools were consistently positive over the period of the project in seeing e-registration as useful in providing information on absence but were split on whether either authorised or unauthorised absence had decreased as a result of e-registration. However, our analysis of the data for e-registration schools indicates that absence, particularly unauthorised absence, decreased over the period of the project: 2002-2005, an improvement greater than the national trend.

This positive outcome must, however, be interpreted in relation to the downward trend in national rates of absence and also the difficulty in isolating the influence of e-registration. The project commenced in April 2002, but many schools took at least a year, or more, before their system was in full operation. A further factor concerns the relative impact of e-registration compared with other initiatives - our research indicated that while schools were positive about e-registration they placed it seventh out of nine factors that they considered effective in reducing absence.

Lesson monitoring was viewed positively with over half of schools considering it had led to a decrease in absence. By the end of the project, most schools had moved or were moving towards including lesson monitoring.

In summary, and taking into account these caveats, our judgment is that it is reasonable to consider that e-registration has had an influence in these schools on the reduction of both authorised and unauthorised absence.

- The percentage of authorised absence decreased in project schools from 8.8% (2001-2002) to 7.5% (2004-2005), a reduction of 1.5 percentage points against the national trend of 1.4 percentage points (7.6% reducing to 6.2%).
- Unauthorised absence reduced from 2.3% to 2.2% over this period while the national percentage increased from 1.1% to 1.3%.
The percentage of pupils gaining 5 grades A* to C at GCSE or equivalent increased from 33.6% (2001-02) to 41.4% (2004-05) an increase of 7.8 percentage points against a national trend of 5.7 percentage points (51.6% to 57.3%).

Caution must be exercised in interpreting these data as many schools were also engaged in other initiatives to reduce absence.

b) The system in operation

The setting up of e-registration systems was not unproblematic. Schools needed time to submit bids, receive approval, procure, install and test systems, and also to train staff. Most schools were satisfied with installation, training and after sales service in these early stages, but substantial minorities were not.

Schools' difficulties with operating e-registration were varied. Some related to perceived inadequacies of the system per se while others concerned the competence of staff, a training issue. The former included both hardware and software problems. Some schools reported that additional facilities they had chosen to purchase were not in fact available when the system was installed. Upgrades could be a time of disruption. But the central importance of the staff was also indicated. At the minimum, registration was a simple activity but to benefit from the many options available (and these increased over the project) required schools to develop staff competence. This generally needed at least one member of staff to develop skills in producing reports, integrating databases in order to explore trends and relationships with other data, and to add generally to the intelligence available to SMT when determining policy and further actions. In this regard, the fact that schools were split as to whether their system provided easy comparison of data is a concern. This does not necessarily imply a deficiency in the e-registration system itself, however; in some cases it reflects a lack of training to enable staff to undertake data analysis requiring the interface of different systems. This concern about compatibility of data systems had influenced many schools to use an e-registration system that linked easily with other data management systems produced by the same supplier.

Schools' views on operating e-registration were generally positive: e.g. in 2005 88% rated it easy to use and 84% rated it adequate for their needs. These are high ratings but it is necessary to note that 20% or so of schools rated these factors negatively. System reliability is fundamental and while about three quarters of schools were positive about this by 2005, over one in five was dissatisfied. The reasons for unsatisfactory reliability were many and varied. Some were specific to the system e.g. its use of laptops, radio transmission or swipe cards, each of which could produce its own problems. For example, laptops could break down and may leave a teacher without a replacement, especially when schools had limited IT staff. School sites presented differing challenges to radio systems but also to wiring installation. Swipe cards could be lost or stolen.

It had been anticipated that e-registration would save staff time. While this was the case for the recording of data, over half of schools by 2005 disagreed that e-registration had released teaching staff time and about two thirds disagreed that admin staff time had been released for other work. Various reasons for this included the need to sort out problems resulting from the e-registration system including incompatible data systems. Some of these problems might be expected to lessen with greater familiarity and software development. Indeed positive schools reported favourably on time saved in analysis and report production.

Other increased demands could be seen as positive as the greater availability of information and means of contacting parents, for example, allowed more and speedier actions. Over 80% of schools were positive about the increased collaboration with other agencies resulting from e-registration. To summarise these findings:

- Nine out of ten schools considered that e-registration provided useful information on authorised and unauthorised absence.
- Only a third of schools considered it released teaching staff for other work and less than a third considered this occurred for admin staff.
- Three quarters of schools were satisfied with
the installation but one in five considered it poor.

- Seven out of 10 schools considered the training received in the operation of their e-registration system was good but one in five considered it poor.

- Immediate after sales service was judged good by only 6 out of 10 schools and almost a third reported it as poor.

- Three quarters of schools considered their e-registration system to be reliable, but almost a quarter disagreed.

- E-registration was seen as adequate for the school's needs, easy to use to provide useful information to staff and parents, and helped to manage absence more effectively by between 8 and 9 out of 10 schools.

- However, fewer than half of schools considered their e-registration provided easy comparison with other data, mainly because of problems in achieving system compatibility.

- Half of schools believed that the accurate recording provided by e-registration led to an increase in recorded absence.

- Seven out of 10 schools would recommend e-registration to other schools.

- Two thirds considered it good value for money.

It is also necessary to contextualise the benefits of e-registration within the wider range of initiatives that schools have undertaken. In this case it is also important to note that the project schools were also characterised, in general, by high levels of social disadvantage.

These schools rated e-registration only seventh of a list of nine possible absence reduction factors, in both 2004 and 2005. Furthermore, in 2005 only 2.4% ranked it first. The most highly rated overall were: first, creating a positive school climate and second, developing a relevant curriculum; these were rated first choice by 46.0% and 25.1% of schools respectively. Discussions with school staff reinforced these relative rankings. In short, e-registration was seen as another important tool to aid schools tackle absence but of more importance was getting schooling right for the pupils.

E-registration was found to be very useful in supporting the collaboration between the school and its education welfare officer (EWO). Rapid access to the data and the facility to explore patterns, where this was used, improved the effectiveness of joint working. However, this was at the school level and we found much less evidence of a wider impact on practice at the LA level. For example, consideration of absence data was essentially a matter for the school and its EWO rather than the LA and Education Welfare Service using the data for strategic purposes.

- Over four out of five schools reported e-registration had improved collaboration with other agencies

- Schools rated e-registration 7th of 9 approaches to reducing absence in both 2004 and 2005 as shown in the table below. The most effective were considered to be the creation of a positive school climate and developing a relevant curriculum.

c) E-registration within the wider context

Although there were difficulties with e-registration, it is reasonable to conclude that schools in general were positive about its contribution to their attempts to reduce absence. About two thirds considered it good value for money and would recommend their system to other schools. However, schools were unable to provide accurate data to allow a value for money analysis to check their impressions. The analysis of absence and attainment data gives grounds for a cautious conclusion that this capital modernisation programme has contributed to a reduction in authorised and unauthorised absence in these schools which previously had the highest levels of absence. These are positive findings.
Mean ranking of absence reduction factors in 2004 and 2005 (%)

<table>
<thead>
<tr>
<th>Factor</th>
<th>2004</th>
<th>2005</th>
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<tbody>
<tr>
<td>Creating a positive school climate</td>
<td>2.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Developing a relevant curriculum for disaffected pupils</td>
<td>3.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Developing good relationships with parents</td>
<td>3.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Focussing on pupil achievement</td>
<td>4.3</td>
<td>4.2</td>
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<tr>
<td>Using rewards for good attendance</td>
<td>4.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Having a clear discipline policy</td>
<td>5.6</td>
<td>5.6</td>
</tr>
<tr>
<td>Using an e-registration system</td>
<td>5.8</td>
<td>5.7</td>
</tr>
<tr>
<td>Punishing parents of consistent non-attenders</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Using punishments for poor attendance</td>
<td>7.8</td>
<td>7.7</td>
</tr>
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It can reasonably be concluded that e-registration has had a positive impact on both authorised and unauthorised absence, although the impact may be less than the data indicate owing to the schools' differential engagement in a number of other initiatives aimed to reduce absence.

**Recommendations**

All the DfES suppliers presented e-registration as an integrated system, facilitating a range of functions in addition to morning and afternoon registration. As a foundation for the successful implementation of e-registration, there is a need for schools to make an adequately informed choice of system to suit their particular profile. Suppliers' assertion that this does not always happen is supported by the fact that several schools in our sample found a need to change their system, having discovered too late a mismatch between system and school profile.

- We recommend, therefore, that a framework of guidance should be provided for schools prior to purchasing an e-registration system, supporting them in identifying and prioritising their requirements.

Information from the study and discussions with DfES and BECTA have highlighted the capabilities and characteristics expected of e-registration systems that can monitor and manage attendance effectively.

- We recommend that the DfES, in collaboration with BECTA, should produce a list of specifications for e-registration systems.

At the same time, we emphasize the commitment of school staff and other agencies (e.g. EWOs) that is needed to operate, analyse, interpret and act upon the data produced, and add that for many members of staff at all levels this will entail learning and maintaining new skills.

- We recommend that schools implement the following measures to engender commitment to the initiative and support for new skills acquisition, acknowledging the measures already taken by many schools:
  - Initial training of teaching staff to implement the attendance systems accurately
  - Initial training for administrative staff to administer the system across the school and produce reports
  - Second level training in data analysis and the integration of attendance and other data (e.g. attainment)
  - Appropriate levels of ITC support staff and capability to maintain systems and repair faults speedily
  - A continuing programme of training to aid implementation of later additions and upgrades to the e-registration system
  - Development of a policy on the use of e-registration by supply teachers
- Development of an effective two-way liaison between the school and its EWO to optimise use of e-registration data

The study has highlighted many cases where the redeployment of administrative staff, and/or creation of new posts, has been necessitated by the production of more data with the advent of e-registration, combined with the school’s increased focus upon attendance issues and the effects of compliance with new legislation on teachers’ contracts.

- We recommend that schools embarking on e-registration consider carefully the implications for staff resourcing, seeking out effective practice in other schools.

Overall, for various reasons, schools expressed only sketchy knowledge of what their e-registration system had cost and what future level of costs might be incurred, though some were optimistic that the system will prove its worth in terms of improvements in attendance levels.

- We recommend that where such knowledge is lacking, schools should engage fully in cost/benefit analysis, including procurement and running costs such as repairs and upgrades.

There is also a benefit in further, more detailed study of the systems in action, for survey and interview data have provided evidence that schools do recognise e-registration as a useful tool in addressing attendance issues.

- We recommend that the DfES should consider an examination of developing practice in relation to the linkage between high quality and timely attendance data, and planned interventions.

This work could include strategies that cover the whole pupil population, and those that focus on particular groups of children identified as at risk of poor attendance and poor educational outcomes, e.g. looked after children. This could be undertaken at both school and local authority level as a basis for developing good practice guidelines.

**Additional Information**

Copies of the full report (RR759) - priced £4.95 - are available by writing to DfES Publications, PO Box 5050, Sherwood Park, Annesley, Nottingham NG15 0DJ.

Cheques should be made payable to “DfES Priced Publications”.

Copies of this Research Brief (RB759) are available free of charge from the above address (tel: 0845 60 222 60). Research Briefs and Research Reports can also be accessed at www.dfes.gov.uk/research/

Further information about this research can be obtained from Peter Baldwinson, Room 2R, DfES, Sanctuary Buildings, Great Smith Street, London SW1P 3BT.

Email: peter.baldwinson@dfes.gsi.gov.uk

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