# CLEO

**Cumbria and Lancashire Education Online**

# LANCASTER
## U N I V E R S I T Y

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# CLEO

**Uses of Espresso Resources in Schools
Summer Term 2005**

**Final Report**

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# 1. Executive summary

**Background and context**

1. During the latter part of 2004 and up to the summer of 2005, Cumbria and Lancashire Education Online (CLEO) with Cumbria and Lancashire local education authorities (LEAs) undertook the implementation of a major initiative to provide all primary and special schools with online multimedia rich resources. Cache boxes were used as a means to host the resources locally, and Espresso resources were purchased by CLEO and installed for schools at no cost. Training was provided as a part of the initiative.

2. Some schools started to use the resources from about December 2004, while others used the resources a few months later. By March 2005, 931 installations of cache boxes had been completed in the two LEAs, leaving only 32 schools without installations at that time.

**This evaluation study**

3. CLEO commissioned an independent evaluation to look at outcomes of both the training and in-school use of resources. The evaluation of the training is reported in a separate document. This report is concerned with in-school uses and outcomes.

4. Prior to commencement of the evaluation, seven aspects were identified as a focus for the evaluation. This report provides the details of outcomes and findings across the scope of those seven aspects.

5. The evidence for the evaluation was gathered first hand from visits to each of 20 schools selected as a sample by a CLEO project officer. Evidence was gathered through teacher interviews, pupil interviews, and observations in lessons. Of the 20 schools in the sample, 15 were primary schools, 2 were junior, 1 was infant, 1 was a special, and 1 was a short stay school. In terms of locations, 9 were located in village or rural settings, 9 in town or city suburbs, 1 was in an inner city, and 1 in a central town location.

6. In total, 36 teacher interviews, 33 lesson observations, and 54 pupil interviews were conducted. This level of evidence is believed to be at a level that will provide early but indicative findings. The findings may not, however, be resilient, as school approaches to uses of the resources may well change over time (even over a period of one year).

**Extents of uses of Espresso resources**

7. In almost all schools visited, Espresso resources were used widely or regularly. In only one school was the level of use limited by technological issues (although though several schools visited had no access to broadband).

8. Most use was concerned with integration of the Espresso resources into specific topics or subject lessons, but in a few schools resources were used every day. Pupils recognised when Espresso resources were being used.

9. Most uses reported by teachers was with Key Stage 2 classes. When resources were used with Early Years, Foundation, and Key Stage 1 classes, teachers found the resources to be useful and valuable.

10. Most uses were in the subject areas of literacy, numeracy, and science. However, some teachers did not use the resources for literacy and numeracy, as they had existing resources in place already. When resources were used in the subject areas of history, religious and multicultural education, personal, health and social education, teachers felt that the resources offered particularly valuable perspectives and possibilities that supported the curriculum.

**How resources were accessed in classrooms**

11. Most teachers accessed the resources through an interactive whiteboard in a classroom. In many cases separate carpet and table areas in the classrooms allowed different uses of the

resources. Personal computers (PCs) within the classroom, or outside in clusters or suites, provided additional ways for teachers to use resources, so that individual pupils or groups of pupils could access interactive resources.

12. Most observed lessons used Espresso resources to check understanding and to extend understanding further. Much of this work involved whole class teaching groups. Some observed uses focused heavily on the use of video clips, but some teachers created novel activities that used features within the Espresso resources effectively. Some lessons were concerned more with pupils working individually or in groups on PCs.

13. Effective access required teachers to address three separate aspects: physical access; pupil involvement; and how learning would be supported. Physical access was sometimes difficult due to constraints on space, and some interactive whiteboards were set at heights that could not be reached by pupils unless they stood on a raised platform, table or chair. Pupil involvement required the teacher to consider how pupils would take part, touch the interactive whiteboard, or use PCs. Support for learning required the teacher to consider activities tailored to specific groups, and the use of frameworks to review specific aspects of learning.

**Areas where Espresso resources were felt to have been of most value**

14. Teachers have reported on the value of resources in many subject areas. Particular mention was made of science and multicultural resources, stories read by authors, early years resources, personal health, and social education resources, and news items. Teachers have appreciated a large resource bank in one place. Many uses of resources have been focused on starter, introductory or plenary activities, rather than on main activities.

15. Pupils have felt that resources offering particular value have been the video clips, interactive and games activities, information factfiles, books and stories read by the author, and news items.

16. Observations in lessons highlighted the value arising from use of Espresso resources in terms of stimulating discussion and questioning, review of learning and reinforcement of knowledge, as well enhancing understanding through use of visual resources (animations and diagrams, as well as video clips). Engagement was clearly a value that arose in classrooms, especially when teachers enabled all pupils to join in some activities, and enabled pupils to try out their ideas on the interactive whiteboard directly, for example.

**Areas where Espresso resources were felt to have made most impact upon teaching**

17. Teachers felt that resources offered them material that could be used readily in starter, introductory, and plenary sessions. They felt that resources were able to be incorporated into lessons easily, to meet the objectives they had set. They felt that the knowledge that they could impart was being enhanced by the resources. Teachers felt that concepts and ideas could be shown more readily and understood more easily through use of video clips, animation, and diagrams. They also appreciated the fact that resources provided another voice, and another perspective.

18. Pupils felt that teachers were supported when they used Espresso resources. They felt that teachers were able to find information from the resources, that some explanations and detail were additionally available to the teacher, as well as offering some ideas, and opportunities to have a real author reading a story.

19. Observations indicated that resource features were supporting teaching in a wide range of ways. Ease of access, speed of access and replay, alternative voices, imagery that enabled discussion and questions, all added to the armoury of the teachers. The resources seen were integrated into lessons, together with other resources, including practical resources or small whiteboards, for example. Resources also provided for differentiated use, and for use with different pupil groupings.

**Areas where Espresso resources were felt to have made most impact upon learning**

20. Most teachers felt that the Espresso resources were supporting learning through enhancing motivation and engagement. Many also felt that memorisation and association of ideas were enhanced. Some felt that learning patterns or approaches were enhanced, and that pupils were more able to undertake certain tasks or play certain roles as a consequence.

21. Pupils felt that their learning was being enhanced. They felt that the presentation of concepts and information was helping them, that certain subjects or topics were being supported, and that access to resources and information itself was being enhanced. Some pupils felt that particular activities or aspects of learning were being enhanced, such as encouragement for writing, or the use of writing frameworks to improve writing outcomes.

22. Observations showed that learning impacts arose when teachers managed the learning with the resources effectively, through encouraging verbalisation of explanations, encouraging pupils to recall details or ideas, encouraging a review of existing knowledge, or providing ways to support knowledge acquisition. Pupils were engaged through the use of the resources, but teachers also enhanced this aspect when they allowed pupils to touch the interactive whiteboards, or to access activities directly on PCs, for example. Espresso resource features did support learning in a range of ways, through the forms of information access provided, through clear audio diction, and the clarity of detail in video clips, for example.

**Reasons felt to account for impacts identified**

23. Teachers felt overall that the Espresso resources were supporting teaching and learning through access to information in useful and interesting ways, and engagement with that information. They felt that understanding was supported and memorisation was aided, as well as discussion and reinforcement being enhanced.

24. Pupils overall felt that the resources helped to manage their learning, and helped them to handle information. They felt that sensory access was enhanced, and consequently that motivation and engagement were enhanced.

25. Pupils felt that their interest, in subjects and topics had been enhanced as a result of using the resources. However, no pupils reported that their behaviour or attendance had been affected.

26. Overall, observations highlighted the role of engagement and motivation in terms of supporting enhanced learning. However, the role of the teacher in managing the learning was crucial, particularly in terms of identifying the features in the structure and provision of the Espresso resources that could be used positively in this respect.

**In-school measurements of impacts at a quantifiable level**

27. No known in-school measurement of impacts at a quantifiable level have been carried out, and none were reported during visits. It is clear that learning benefits arising at the stage of school visits impacted at a short term memorisation and recall level, and short term activity enhancement level. Longer term impacts that might arise have yet to be seen or identified.

**Conclusions and recommendations**

28. A range of conclusions has been drawn, and these are reported in Section 8. Overall, the schools visited, and the teachers and pupils interviewed have appreciated the resources, and have been able to use them largely effectively. In some cases, specific learning benefits have arisen, and some innovative uses have taken certain levels of understanding for pupils well forward (for example, a framework to enable pupils to recognise the detail of information that can be picked up through listening and that from watching).

29. The vast majority of teachers interviewed want to continue to have access to the Espresso resources. However, lack of home access has been reported to be a major disadvantage, as it

does not allow for review of resources and planning for lessons outside the school. This issue should be addressed if teacher use is to increase.

30. Uses observed and reported have varied from school to school widely. Some uses demonstrate significant pedagogical benefit and potential. There is scope for sharing these forms of practice more widely across schools.

## 2. Introduction to this report

This evaluation report is based upon the widest range of evaluation evidence available. The context of the activity, and the ways in which the Espresso resources have been used in a range of selected schools across Cumbria and Lancashire local education authorities (LEAs) are detailed within this report.

The report is divided into sections. The detail contained within each section of this report is listed below.

**Section 3**    provides some background to the pilot, and to the context of the Espresso initiative.

**Section 4**    details the aims and objectives of this evaluation study.

**Section 5**    offers details of the methods and approaches that have been used to undertake this evaluation study, and lists the criteria identified at the outset.

**Section 6**    looks at the evidence base of this evaluation study.

**Section 7**    details the findings and outcomes that have been identified.

**Section 8**    lists the conclusions drawn, and offers some recommendations.

## 3. Background to the Espresso initiative

**Background**
Cumbria and Lancashire Education Online (CLEO) set up a widespread implementation of Espresso resources for schools across Cumbria and Lancashire LEAs, in the first instance as a pilot activity, but then across all schools in the two LEAs. Using selected cache boxes, the purpose of the initiative was to enable teachers in any school, by choice, to gain access to Espresso resources, for use in classrooms. Training was provided (and this aspect has been evaluated separately). This report is concerned with the findings of an independent evaluation that has looked at impacts of the pilot on teaching and learning.

**Groups involved**
CLEO have worked with the two LEAs to provide structured training on the uses of Espresso in schools. The training was phased, so some schools gained earlier access to the resources than others. The resources were in use in some schools by December 2004. For the purposes of this evaluation, the schools that gained early access were included in the visits undertaken.

**Project implementation**
A Highlight Report (Singleton, 2005), reporting on the progress of the Espresso and Cache Box Rollout, indicated that by March 2005, 324 installations had been completed in Cumbria LEA, and 607 installations had been completed in Lancashire LEA (totaling 931 installations of cache boxes in total). Only 32 schools in the 2 LEAs remained at that stage without installations.

By March 2005, training was being run in both LEAs. Trainers were trained in advance of other teachers, and these sessions were scheduled during April 2005. Training of teachers was run in a range of subsequent sessions. Details of this training and its outcomes can be found within a separate evaluation report document.

# 4. Aims and objectives of this evaluation study

It was the intention of this evaluation study to look at a selection of schools in the Espresso pilot, in order to identify learning and teaching outcomes arising in as much detail as possible. A number of outcomes were felt to be of particular pertinence, all concerned with impacts of Espresso resources upon teaching and learning. These forms of impact were gathered at an early stage, so that changes being brought about were not lost. The aspects that were identified as those of particular relevance to the evaluation were:

- Extents of uses of Espresso resources.
- How resources were accessed in classrooms.
- Areas where Espresso resources were felt to have been of most value.
- Areas where Espresso resources were felt to have made most impact upon teaching.
- Areas where Espresso resources were felt to have made most impact upon learning.
- Reasons felt to account for impacts identified.
- In-school measurements of impacts at a quantifiable level.

These evaluation aspects were focused on throughout the data gathering process. No re-emphasis was made, as these aspects appeared to take account of observed and worthwhile features and approaches in the classrooms involved in the evaluation study.

## 5. Methods and approaches to undertake the evaluation

Using the evaluation aspects identified in Section 4 above, evaluation instruments were constructed to gather evidence, using discussions and observations in schools. In order to gather sufficient evidence, robust enough to potentially generalise at a wider level, 20 schools were involved in the data gathering evaluation exercise. Aspects covered by the instruments used to gather particular forms of evidence are summarised in the table following.

| Evaluation instrument | Evaluation aspects covered |
|---|---|
| Observation of one or more lessons in 20 selected schools | • Uses of Espresso resources within the lesson or lessons.<br>• Classroom management and ICT deployed to offer access.<br>• Aspects where Espresso resources were felt to be impacting most.<br>• Aspects where Espresso resources were felt to be making most impact upon teaching.<br>• Aspects where Espresso resources were felt to be making most impact upon learning.<br>• Reasons felt to account for the impacts observed. |
| Discussion with up to 4 key teachers in 20 selected schools | • Extents of uses of Espresso resources.<br>• Areas where Espresso resources were felt to have been of most value.<br>• Areas where Espresso resources were felt to have made most impact upon teaching.<br>• Areas where Espresso resources were felt to have made most impact upon learning.<br>• Reasons felt to account for the impacts made.<br>• Any identified in-school impacts at a quantifiable level. |
| Discussion with a selection of up to 12 pupils in 20 selected schools | • Extents of uses of Espresso resources.<br>• Areas where Espresso resources were felt to have been of most value.<br>• Areas where Espresso resources were felt to have made most impact upon teaching.<br>• Areas where Espresso resources were felt to have made most impact upon learning.<br>• Reasons felt to account for the impacts made.<br>• Recounted impacts upon aspects of behaviour, attendance, engagement and motivation, as well as subject or topic learning. |

**Table 1:  Evaluation instruments and criteria**

Suitable evaluation instruments were designed for each specific group involved. CLEO were responsible for selecting the schools involved in the evaluation, and the CLEO project officer set up appropriate dates and times for visits.

# 6. Evidence base of this evaluation study

**Evidence base**
The amount of evidence gathered, and the type of evidence gathered, varied from school to school. However, a wide range of evidence was gathered, and the findings and outcomes are reported here. Sources to inform this evaluation study report are listed in the table following.

| Source | Frequency |
| --- | --- |
| Key teacher interviews | 36 |
| Lesson observations | 33 |
| Pupil interviews | 54 |

**Table 2: Sources of evidence gathered**

**Scope of evidence**
The scope of evidence for this evaluation study is at an acceptable level (but is minimal if there is any attempt to generalise findings further). Overall, schools were prepared to show uses of Espresso within lessons, but many schools were at the stage where only one or a small number of teachers were using Espresso. It was therefore more difficult to gather a large number of teacher responses, and the level of pupil responses was determined by the age of pupils involved in some instances. However, it should be noted that all schools were supportive of the evaluation, and provided as much access to evidence requested as possible. The range of schools selected by CLEO for evaluation involvement covered a range of school types, and school locations. The range is shown in the table following.

| School type | Frequency |
| --- | --- |
| Primary | 15 |
| Infant | 1 |
| Junior | 2 |
| Special | 1 |
| Short stay | 1 |

**Table 3: School types represented in the school sample**

Most schools in the sample were primary schools. Other school types were represented, but in small numbers only. Locations of schools are shown in the table following.

| School location | Frequency |
| --- | --- |
| Inner city | 1 |
| Central town | 1 |
| Town or city suburbs | 9 |
| Village or rural | 9 |

**Table 4: Locations of the school sample**

Most schools in the sample were located in village or rural, or town or city suburb settings. Inner city and central town locations were represented by small numbers of schools only. Only one school had significant numbers of pupils who were not of white English origin.

**How evidence is reported**
For the purposes of this report, school anonymity is preserved. Names are not used throughout.

## 7. Findings and outcomes

**Forms of evidence reported**
In this section, evidence is provided from three different sources:
- Teacher interviews.
- Pupil interviews.
- Lesson observations.

Where specific sources of evidence have been used, these are clarified in the text in each of the following sub-sections.

**Teacher reports of levels of use of Espresso resources**
The amounts of use reported by teachers interviewed were generally high. Their responses are shown in the table following.

| Amounts of use reported | Frequency |
|---|---|
| Used for short bursts/specific topics | 13 |
| A large resource, liked very much | 7 |
| A lot, widely used generally | 6 |
| Limited because of technological issues | 1 |

**Table 5: Teacher reports of levels of use of Espresso resources in classrooms**

Much use was reported in terms of integration of Espresso resources into specific topics or subjects, but in many cases teachers used the resources very widely. Of the teachers interviewed, the vast majority felt that there was useful material within the resource, often to the extent that it was too large to explore as adequately as they would have liked.

**Pupil responses to how often they had used Espresso resources**
Pupil responses to levels of use supported reports from teachers. Pupil responses are shown in the table below (although it should be recognised that these responses come from a limited number of classrooms).

| Amounts of use reported | Frequency |
|---|---|
| For specific topics | 19 |
| For a few topics | 16 |
| Quite a lot/every day | 18 |

**Table 6: Pupil reports of levels of use of Espresso resources in classrooms**

Overall pupils recognised when Espresso resources were being used. Some pupils were experiencing quite high levels of use, and this suggested that teachers were finding ways to integrate the resources into a wide variety of subject lessons and topics.

**Teacher levels of use of Espresso resources by age group**
Teachers reported that they had used Espresso resources with a variety of year groups. The frequency of year group uses reported by phase are detailed in the table following. It should be noted that the frequencies shown below are those reported by teachers interviewed.

| Phase groups using Espresso resources | Frequency |
|---|---|
| Early years | 3 |
| Foundation | 7 |
| Key Stage 1 | 11 |
| Key Stage 2 | 21 |
| Key Stage 3 | 1 |

**Table 7: Teacher reports of uses with different phases**

The majority of uses reported were in Key Stage 2, but where teachers were using resources in early years, foundation, and Key Stage 1 phases, uses were felt to be valuable and worthwhile. The initiative provided access to primary and special schools, so it was only possible to observe Key Stage 3 use in the one special school in the sample.

**Subject uses of Espresso resources**

The subjects or topics reported by teachers where Espresso resources were used are shown in the table following. These levels of uses are linked to particular year groups uses also.

| Subjects or topics used | Frequency |
|---|---|
| Literacy (including specific topics such as letter formation, alphabet letter sounds) | 15 |
| Numeracy (including specific topics such as mental starters, writing numbers, shape) | 15 |
| Science (including specific topics such as space, animals) | 15 |
| History (including specific topics such as toys) | 8 |
| Religious Education (multicultural aspects) | 7 |
| Stories, authors, poetry | 5 |
| Personal, Health and Social Education (including people who help us, open a door) | 4 |
| Geography | 3 |
| Most topics and subjects | 2 |
| French resources | 1 |
| Art | 1 |
| News items | 1 |

**Table 8: Subject or topic uses reported by teachers in interviews**

The three subjects where uses of Espresso resources were most commonly reported were literacy, numeracy, and science. Literacy and numeracy resources were used most often in Key Stage 1 classrooms, while science resources were used more commonly in Key Stage 2 classrooms. The other reported uses were also significant, in that they were felt by teachers to offer resources that would be otherwise difficult to access (such as multicultural resources, stories read by the author, and resources that looked at people doing specific jobs, for example).

**How pupils and teachers accessed the Espresso resources**

Observations showed that particular deployment patterns were present across schools visited. The frequency of these different deployment patterns is shown in the table following.

| Deployment pattern to enable access | Frequency |
|---|---|
| Interactive whiteboard, separate carpet and table areas, and PCs within the room | 7 |
| Interactive whiteboard, separate carpet and table areas, and PCs outside the room | 6 |
| Interactive whiteboard, table area, and PCs within the room | 4 |
| Individual PCs in an ICT suite/cluster | 3 |
| PC in the classroom | 2 |
| Interactive whiteboard, table area, and PCs outside the room | 1 |

**Table 9: Deployment patterns of classrooms observed where Espresso resources were accessed**

In most cases Espresso resources were accessed through interactive whiteboards (in 18 cases out of 23). However, where teachers had access to PCs in clusters or suites, rather than interactive whiteboards, access was still happening, although the management of these forms of access required different approaches by the teachers. In many cases where interactive whiteboards were present, classrooms had separate carpet and table areas; this enabled different forms of Espresso resource access. On a carpet, pupils could join in together in a game or a song, for example, or easily come to an interactive whiteboard to undertake specific tasks. At a table, the interactive whiteboard would still be visible, and pupils could work on table tasks while referring to details left on the interactive whiteboard. In a number of cases, teachers used both the interactive whiteboard to offer whole class access, as well as PCs to offer individual pupil or group access to other resources. In a few cases, teachers offered a group of pupils access to the interactive whiteboard to undertake an activity.

**Observed uses of Espresso resources within classrooms**
The uses of Espresso resources in lessons observed covered a wide variety of subjects. The frequency of uses observed are shown in the table following.

| Espresso resource observed in classrooms | Frequency |
|---|---|
| Numeracy (counting activity, number lines, sorting shapes, money) | 6 |
| Science topic resources (on growing, habitats, animals) | 5 |
| Story read out by authors | 5 |
| Literacy (alphabet resources, video clip on Brazil, action rhymes, phonics) | 3 |
| Using the digital microscope | 2 |
| History (Great Fire of London, Egyptians) | 2 |
| Art (sculptures) | 1 |
| Personal, health and social education (moving on) | 1 |
| Geography topic resources (factfiles, videos on Paris, China) | 1 |

**Table 10: Subject resources observed in lessons**

This pattern followed largely the pattern of uses reported by teachers generally. Resources within the same subject group were used differently in different classrooms, however.

**Observed ways in which resources were used within lessons**
Resources were used in classrooms in different ways pedagogically. The different ways were identified and are shown in the table following.

| Ways in which Espresso resources were used in lessons | Frequency |
|---|---|
| Using a resource to check understanding and to extend understanding further | 12 |
| Listing video clips and interactive quizzes that pupils use independently | 7 |
| Using a story/video clips as a source from which pupils take notes to use when writing | 4 |
| Using resources/video clips to introduce a topic and illustrate concepts and ideas | 4 |
| An animation/video clips to introduce a topic and to use as a plenary at the end of the lesson | 2 |
| Listing a range of resources from which pupils take notes to use when writing | 2 |
| Using a story/video clips to introduce a topic | 2 |
| Using video clips to explore and develop writing/writing techniques | 2 |
| Using a range of imagery to provide ideas for a main activity | 2 |
| Listing a range of resources from which pupils take notes to create a summary table | 1 |
| Using audio then video to contrast notes taken to demonstrate different information provided | 1 |
| Using resources to compare personal feelings and ideas with those of others | 1 |

**Table 11: Ways in which Espresso resources were used in classrooms**

The most commonly observed way in which Espresso resources were used was to check understanding and to extend understanding further. However, a range of uses were linked to activities that provided pupils with more independent ways of working. Some of these were concerned with ways to support effective note taking, or writing for specific purposes and audiences. Some uses were innovative, and potentially important pedagogically. For example, one teacher used the fact that the audio track on a video could be played separately, so provided a framework whereby pupils listed points that they could only gather by listening, and then contrasted this with what they could gather by watching the video. The framework provided a structure that demonstrated the importance of active listening, and showed quite clearly that visual material often only supports in a contextual way, rather than a detailed way.

**Observed aspects of classroom management concerned with uses of Espresso resources**
The lessons observed provided opportunities to identify key features and aspects concerned with classroom management when the Espresso resources were used. The table following identifies and shows the aspects observed.

| Classroom management aspects observed in classrooms | Frequency |
|---|---|
| *Aspects concerned with physical access (11 instances)* | |
| Separate carpet area enables pupils to see and move to touch the resource | 4 |
| Interactive whiteboard is set at a height to enable pupils to see easily | 3 |
| A table for practical activities is put in front of the interactive whiteboard | 1 |
| Tables were positioned so that pupils could easily see the interactive whiteboard | 1 |
| Pupils seated at 90° to the interactive whiteboard enables an easy move to group activities | 1 |
| Some pupil groups can work on the interactive whiteboard while others can work on PCs | 1 |
| *Aspects concerned with pupil involvement (6 instances)* | |
| Pupils can develop independent learning by exploring resources on PCs/in an ICT suite | 4 |
| PC monitors are switched off to focus attention on the interactive whiteboard | 1 |
| Two pupils act as teachers to teach the next pair of pupils what to do | 1 |
| *Aspects concerned with teacher support for learning (6 instances)* | |
| Activities in the classroom and in an ICT suite could be tailored to challenge different groups | 1 |
| Pupils can be selected to use specific resources | 1 |
| The teacher can enhance engagement by enabling pupils to touch the interactive whiteboard | 1 |
| The teacher can replay a video to focus on listening at first then note taking on second view | 1 |
| The teacher has the chance to work with pupils in a focused way on a PC | 1 |
| The teachers focuses attention through note taking to extend beyond a passive activity | 1 |

**Table 12: Aspects of classroom management associated with uses of Espresso resources**

Overall, three different forms of aspects were observed:
- Those concerned with physical access (11 instances).
- Those concerned with involving pupils (6 instances).
- Those concerned with how the teacher supported learning (6 instances).

In terms of physical access, a separate carpet area enabled pupils to move to the interactive whiteboard readily. However, in a number of cases, the interactive whiteboard was set at a height that did not enable easy pupil access (and in some cases pupils had to stand on a table or chair to drag and drop items). Some teachers had considered the need for a table placed in front of the interactive whiteboard, so that practical activities could be undertaken and demonstrated as a part of the lesson. Some classrooms were more crowded than others, and uses of PCs in some classrooms was hindered by lack of space to move easily, or to place books or writing instruments around the PCs.

In terms of involving pupils, some teachers used strategies to enable particular groups to use PCs outside the room, or in an ICT suite, to enable Espresso resources to be used at an individual pupil or group level. These forms of activity were enjoyed by pupils as were activities undertaken on the interactive whiteboard. Accommodating the need to develop independent learning was clearly an important focus for some teachers.

In terms of how the resources supported learning, different strategies were used by teachers. Whilst all of those in the table above are important, not all were observed in any one lesson (although they might well have been observed across a number of lessons).

**Teacher perceptions of Espresso resources that offered most value**
Teachers who were interviewed provided their ideas about the resources that they most valued. As all teachers were exploring the uses of Espresso resources for the first year, it is likely that some will be valued more than others, and some will be reused in subsequent years while others are not. Teacher responses are shown in the table following.

| Espresso resources felt to offer most value | Frequency |
|---|---|
| Science (topics include forces and friction, water cycle) | 10 |
| Numeracy (topics include number, shape, space, symmetry) | 9 |
| Animations and moving images | 5 |
| Literacy (topics include alphabet letter sounds, comparing authors) | 4 |
| Multicultural aspects (useful in all-white schools) | 4 |
| Animated stories and authentic author voice | 3 |
| Resources enable discussion so activities are broken easily into tasks or steps | 3 |
| Early years resources (for emergent readers and number users, stretching lower ability) | 3 |
| News items (including covering special occasions) | 3 |
| Art topics | 3 |
| Large resource provides for most topics | 3 |
| Religious education topics | 3 |
| Personal, health and social education topics | 2 |
| History topics | 2 |
| Resources for starters | 2 |
| Resources for plenaries | 1 |
| Easier to start and stop the videos when they are put into MS PowerPoint | 1 |
| Interactive resources for French language | 1 |
| Resources show things that cannot be covered easily verbally | 1 |
| Resources link well to QCA and National Curriculum documents | 1 |
| Geography topics | 1 |

**Table 13:  Teacher perceptions of Espresso resources felt to offer most value**

It should be noted that all of the items above were selected by teachers, and hence are all valued by at least one teacher. Although there was some degree of commonality, the width of uses observed and reported suggested that wider sharing of practice would be a worthwhile exercise to consider. Although numeracy and literacy resources were valued particularly in some schools, other schools felt that these were the least valuable resources. Some schools identified multicultural resources as being of particular value, while the animated stories read by their authors were also singled out in a number of cases. Some teachers did voice concern at the time involved in viewing such a large resource; while this might have explained some lower level of uses than might have been expected, it was also reported that resources could be accessed easily.

**Pupil perceptions about which Espresso resources they felt had been the best**
Pupils were asked which resources they felt were of most value. Their responses are shown in the table following.

| Espresso resources felt to have been the best | Frequency |
|---|---|
| Video clips | 16 |
| News item on G8 leaders, tornadoes | 9 |
| Activity on habitats | 8 |
| Mathematics activities and games | 7 |
| Books read by author | 6 |
| Information/factfiles on science | 5 |
| Information found about sports | 4 |
| Stories/for story writing | 4 |
| History topics | 3 |
| Pets | 2 |
| Diagrams explained concepts | 2 |
| Countries | 1 |

**Table 14:  Pupil perceptions of Espresso resources felt to offer most value**

Pupil perceptions were reliant on the exposure they had experienced. However, there were clearly four areas of resources that they reported as being those felt to be the most valuable:
- Video clips (16 cases).
- Interactive activities and games (15 cases).
- Information factfiles (15 cases).
- Books and stories read by the author (10 cases).
- News items (9 cases).

**Observations of ways in which Espresso resources were felt to be impacting most**
Observations in lessons provided opportunities to look at the ways in which Espresso resources were impacting overall. Observed features are shown in the table following.

| Aspect where Espresso resources were felt to be impacting most | Frequency |
|---|---|
| *Aspects concerned with resource features and impacts on learning 23 instances)* | |
| Teacher was able to discuss points and question after using/reusing the resource | 9 |
| Resources were structured so that pupils could identify points readily | 3 |
| Pupils could watch and listen to reinforce aspects covered or explore new aspects | 2 |
| Teacher was able to discuss points and question when using/by stopping the resource | 2 |
| Pupils could see concepts (such as seeds growing) | 1 |
| Pupils using PCs could work independently to develop their understanding | 1 |
| Pupils were encouraged to read information out aloud to increase language abilities | 1 |
| Resources could be integrated with the use of other practical resources | 1 |
| Resources enabled the teacher to ask about feelings as well as facts | 1 |
| Resources on individual PCs allowed pupils to try out their own ideas | 1 |
| Some resources took elements of the lesson further and extended learning activity | 1 |
| *Aspects concerned with aspects of engagement (15 instances)* | |
| Pupils were engaged in a relaxed but focused way, very largely on task | 7 |
| Pupil engagement was maintained when they needed to touch the interactive board | 2 |
| Pupils maintained their interests within a specific topic environment | 2 |
| Resource enabled pupils to engage easily and join in with others | 2 |
| All pupils were involved during a test session | 1 |
| The story being read out aloud enabled all pupils to access it | 1 |

**Table 15:  Aspects observed where Espresso resources were felt to be impacting**

Overall, there were two groups of aspects that were identified in terms of impact:
- Those concerned with resource features (23 instances).
- Those concerned with engagement (15 instances).

In terms of engagement, pupils were often engaged and on task when Espresso resources were being used. Engagement was aided by pupils being able to join in together on some occasions (in games, in songs, in tests by using small whiteboards, by clear reading of a story, for example), and being able to touch the interactive whiteboard to try out their ideas.

In terms of resource features that impacted on learning, these were concerned with:
- Teachers being able to use the resources to generate discussion and questions, and to stimulate pupils to discuss their ideas, strategies or feelings.
- Pupils being able to watch and listen to an alternative source, to contrast their known knowledge, to explore new knowledge and ideas.
- Pupils being able to use resources that were structured in ways where they could identify key points, or see concepts more easily.
- Teachers encouraging pupils to work independently as well as in groups or as a whole class, to read out information, and to explore activities with practical materials.

**Teacher perceptions of Espresso resources that offered most value for teaching**
Teachers were asked about those Espresso resources that offered most value in terms of teaching. Their responses are shown in the table following.

| Espresso resources felt to offer most in terms of teaching | Frequency |
| --- | --- |
| *Items concerned with lesson structure and aims (43 instances)* | |
| Resources can be used for starters or introductions | 10 |
| Used for plenaries/interactive resources | 10 |
| Objectives are met by the resources, so they fit in easily into most topics | 8 |
| Useful to have everything in one place/easy to access (in a safe environment) | 4 |
| Used for extension material or reinforcement | 3 |
| Easy to access multi-cultural areas | 2 |
| Science/history with factfiles have been used to provide detail | 2 |
| Can plan using the list of things to come each week | 1 |
| Able to access materials not generally available, like poets, authors | 1 |
| Differentiated articles are useful | 1 |
| Up-to-date news items | 1 |
| *Items concerned with features of video and imagery (19 instances)* | |
| Shows things clearly, ideas and how to do things | 10 |
| Pupils engage with animations and clips (even with low attention spans) | 4 |
| Video clips offer specific information of particular relevance | 3 |
| Seeing different parts of the world | 1 |
| Video uses simple or appropriate language | 1 |
| *Items concerned with features of audio and discussion (11 instances)* | |
| Video clips allow discussion to be generated | 4 |
| Video enables teachers to discuss and find which pupils know what | 3 |
| Different voices are useful | 1 |
| Music specialist has used the music resources | 1 |
| Offers another perspective | 1 |
| Enables discussion about feelings and how to express ideas | 1 |

**Table 16: Teacher perceptions of the Espresso resources that offer most in terms of teaching**

Teachers identified three forms of aspects that offered most in terms of teaching:
- Those concerned with lesson structure and aims (43 instances).
- Those concerned with features of the video or the imagery (19 instances).
- Those concerned with features of the audio and discussion (11 instances).

The aspects concerned with lesson structure and aims were identified most commonly (43 instances arising). The ability to use resources for starters, introductions, and plenary sessions was highlighted particularly. Teachers felt that objectives could be met by the resources, and that resources were easy to access, since they were in one place (although some teachers did not feel that this was the case). The detail provided by the resources meant that teachers felt that the knowledge they could impart was being augmented, and that reinforcement and extension material was of value.

The aspects concerned with video and imagery were related to the teacher's ability to show concepts, ideas and details easily through the use of a short video. Teachers felt that pupils engaged with the video clips, and that the language used was appropriate.

The aspects concerned with audio and discussion were related to the teacher's ability to use these readily to generate discussion, and to question pupils in a searching way. Some teachers felt that the resources offered another voice, and another perspective. In some cases, teachers felt that feelings could be explored more because of the content of the video clips. In other cases, teachers felt that the resources stimulated discussion from pupils.

**Pupil perceptions about which Espresso resources they feel have helped the teacher most**
Pupils were asked which Espresso resources they felt had helped the teacher most. Their responses are shown in the table following.

| Espresso resources felt to have helped the teacher most | Frequency |
|---|---|
| The teacher was able to find more information easily from the resources | 12 |
| The teacher encourages use of the resources | 6 |
| The teacher seems to like using the resources | 6 |
| The teacher asked us to explore generally | 4 |
| The teacher was able to access the resources easily | 3 |
| The teacher was able to explain things easily when using diagrams and video clips | 3 |
| The teacher asked for specific information to be found | 2 |
| The teacher was able to use ideas from the resources | 1 |
| The teacher was able to choose a real author to read the stories | 1 |

**Table 17:  Pupil perceptions of the Espresso resources that offer most to the teacher**

Many pupils felt that teachers were able to find additional information by using the resources. Some felt that explanations were available to support the teacher, and that some resources offered the teacher more ideas, or the chance to have a real author reading a story.

**Observations of ways in which Espresso resources were felt to be making most impact upon teaching**
Lessons observed provided opportunities to enable features that were felt to have an impact upon teaching to be identified. Those identified are shown in the table following.

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| Aspect where Espresso resources were felt to be impacting most on teaching | Frequency |
|---|---|
| *Aspects concerned with Espresso resource features (19 instances)* | |
| Imagery allowed points/feelings to be discussed when pupils were looking at the resource | 5 |
| Resources were easy and quick to access | 3 |
| The resource provided an alternative voice and means to engage listening | 2 |
| Imagery was able to be accessed easily | 2 |
| The resource enabled pupils to make notes that could be put into a report/used afterwards | 2 |
| The resources on an interactive whiteboard provided visual presence to engage pupils | 2 |
| Resources could be replayed if pupils showed uncertainty | 1 |
| The resource was structured in a way to support recall | 1 |
| The video clips could be stopped so that the teacher could discuss points as needed | 1 |
| *Aspects concerned with integration of resources into the curriculum or lesson (15 instances)* | |
| The resource was able to be used both as a starter and as a plenary | 4 |
| Questions could be asked at various points to check understanding/discuss misperceptions | 3 |
| Resources were integrated with other resources, such as small white boards or sorting shapes | 2 |
| The resource enabled a concept to be introduced easily | 2 |
| The resource provided interesting content additional to that provided by the teacher | 2 |
| The resource was structured to enable easy recording/understanding to move on | 2 |
| *Aspects concerned with the management of learning (5 instances)* | |
| Different resources enable group activities to be varied/differentiated | 2 |
| Pupils were able to use an alternative resource in an independent environment | 2 |
| Points could be demonstrated practically while the visual background was maintained | 1 |

**Table 18: Observed aspects felt to impact most on teaching**

Aspects that were observed feel into three categories:
- Those concerned with features of the Espresso resources (19 instances).
- Those concerned with how the resources were integrated into the curriculum or lesson (15 instances).
- Those concerned with how learning was managed (5 instances).

The features of the Espresso resources that were felt to make an impact were concerned with imagery and how it generated and could be used in follow-up discussion, and how resources were structured to support recall of information and detail. Resources could be accessed easily, replayed, stopped, provided another voice, or provided a background visual presence. Highlighted areas enabled pupils to take notes more readily (although some video clips covered a great deal of material rather quickly).

Aspects concerned with integration related to the ability of the teachers to use the resources flexibly, as starters, or in plenary sessions, and in some cases, as a stimulus for a main activity. Resources could be used flexibly so that other practical resources, or use of small whiteboards, for example, would also be possible within a single lesson. In these ways, integration was possible at both a curriculum and a lesson level.

Aspects concerned with the management of learning related to the opportunity to offer differentiated resources, and to provide different activities for different groups. Some teachers used PCs outside their classrooms to extend differentiated learning opportunities.

**Teacher perceptions of Espresso resources that offered most value for learning**
Teachers were asked about the Espresso resources that offered most value in terms of learning. Their responses are shown in the table following.

| Espresso resources felt to offer most in terms of learning | Frequency |
|---|---|
| *Aspects concerned with motivation and engagement (32 instances)* | |
| Pupils enjoy it, they concentrate and engage with interactive resources | 11 |
| Pupils choose to go on it and use it (especially boys) | 5 |
| Pupils enjoy being shown when they have correctly undertaken tasks | 3 |
| Language/material is child friendly/appropriate | 3 |
| Different ways to present | 2 |
| Variety when a class has a teacher for a long time | 2 |
| Authentic material | 2 |
| Can see things not generally accessible (e.g. multicultural aspects) | 2 |
| Animations and music engage pupils | 1 |
| Authentic authors stimulated writing | 1 |
| *Aspects concerned with memorisation and association (19 instances)* | |
| Colourful and visual, with detail and additional facts | 8 |
| Video clips help with understanding concepts (e.g. using time lapse) | 4 |
| Pupils remember things clearly | 2 |
| Resources can be replayed to check learning, to support recall and memorisation | 2 |
| Focus on the meaning of words is useful | 2 |
| Video provided perspectives not available otherwise | 1 |
| *Aspects concerned with learning patterns or approaches (5 instances)* | |
| Pupils can use the resources independently for extension work | 4 |
| Pupils can identify those aspects that can only be found by listening | 1 |
| *Aspects concerned with undertaking tasks or roles (2 instances)* | |
| Role play can easily follow resources such as 'people who help us' | 1 |
| Pupils were able to undertake tasks shown on the clips, such as writing in sand | 1 |

**Table 19: Teacher perceptions of the Espresso resources that offer most in terms of learning**

Teachers identified aspects that fell into four different categories:
- Those concerned with motivation and engagement (32 instances).
- Those concerned with memorisation and association of ideas (19 instances).
- Those concerned with learning patterns or approaches (5 instances).
- Those concerned with undertaking tasks or roles (2 instances).

Aspects concerned with motivation and engagement were reported most commonly. Engagement and motivation was reported to be due to variety offered, authenticity of material, abilities to see concepts and ideas, language used, and the forms of activities used.

Aspects concerned with memorisation and association of ideas were reported in terms of the colourfulness of resources, the details provided, and the additional facts available. The ability of video clips to aid understanding of concepts, and to offer alternative perspectives were highlighted, as well as the fact that pupils appeared to remember those things shown on video. The ability to replay was felt to be important in terms of recall and memorisation.

Aspects concerned with learning patterns or approaches were less commonly identified. However, using resources with different groups, and to undertake tasks in particular ways to meet specific objectives, were highlighted.

Aspects concerned with undertaking tasks or roles were also less commonly reported. However, the fact that pupils could repeat tasks shown, and undertake activities where ideas were presented, was of particular value to some groups (writing in the sand with foundation years, for example).

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**Pupil perceptions about which Espresso resources they felt helped their learning most**

Pupils were asked about the Espresso resources that they felt had helped their learning most. Their responses are shown in the table following.

| Espresso resources felt to have helped their learning most | Frequency |
|---|---|
| *Responses concerned with how resources present concepts or information (42 instances)* | |
| Moving images are easier, speaking and showing is easier than reading and watching pictures | 12 |
| Interactive resources in mathematics | 10 |
| Being able to see things and listen to information | 7 |
| The story was read in an interesting way | 7 |
| Information is provided in an interesting way | 2 |
| Activities where answers need to be chosen | 2 |
| Diagrams are clear | 2 |
| *Responses concerned with a subject or topic (22 instances)* | |
| Habitats resources | 6 |
| Pets resources | 5 |
| Information pages on science | 5 |
| Sports resources | 4 |
| Tornadoes resources | 2 |
| *Responses concerned with access to resources and information (6 instances)* | |
| Lots of information/additional detail | 4 |
| Information is easy to find | 2 |
| *Responses concerned with encouraging particular activities or aspects of learning (6 instances)* | |
| Resources provide useful points/ideas to help writing | 4 |
| The stories encouraged reading | 1 |
| Writing frameworks enable writing to be changed easily | 1 |

**Table 20: Pupil perceptions of the Espresso resources that offer most in terms of learning**

Pupils identified four categories of aspects that they felt were important in terms of their learning:
- How resources presented concepts or information (42 instances).
- Subjects or topics covered (22 instances).
- Access to resources or information (6 instances).
- How particular activities or aspects of learning had been encouraged (6 instances).

In terms of how resources presented concepts or information, pupils highlighted the value of moving images, and how speaking and showing is an easier means by which to pick up information than reading and watching pictures in a book. The value of interactive resources was highlighted, as well as stories and information provided or being read in an interesting way. The importance of the clarity of diagrams was highlighted also.

In terms of support for specific topics or subjects, pupils highlighted a number of resources. Some of these were subject related, while others were those offered as news stories. In terms of access to resources or information, pupils highlighted the value of the amount of information available, and the detail provided. Its ease of access was also highlighted as being important.

In terms of encouraging particular activities or aspects of learning, pupils highlighted the fact that resources offered useful points or ideas. They indicated how stories encouraged reading as well as writing, and that writing frameworks allowed writing to be amended readily.

**Observations of ways in which Espresso resources were felt to be making most impact upon learning**

Lessons observed provided opportunities to identify those aspects making impact upon learning. Those identified are shown in the table following.

| Aspect where Espresso resources were felt to be impacting most on learning | Frequency |
|---|---|
| *Aspects concerned with the management of the learning by the teacher (17 instances)* | |
| Pupils needed to verbalise, to explain and to give examples and ideas | 4 |
| Pupils were encouraged to review their knowledge when notes needed to be structured | 4 |
| Recall/reinforcement was encouraged by teachers asking questions | 3 |
| Independent learning can be provided for and encouraged | 2 |
| Pupils needed to try their ideas out when using the interactive whiteboard | 2 |
| Needing to read text out aloud encourages language abilities | 1 |
| Pupils needed to talk about feelings and thoughts | 1 |
| *Aspects concerned with engagement (11 instances)* | |
| The resource engaged pupils on the topic, so that the teacher could discuss points easily | 8 |
| Pupils were engaged in listening | 2 |
| Pupil engagement was maintained when pupils used the interactive whiteboard | 1 |
| *Aspects concerned with resource features (5 instances)* | |
| There was plenty of information for notes to be taken easily | 2 |
| The audio was clear and the diction was clear | 1 |
| The resource was structured so that pupils could see and discuss comparisons | 1 |
| Video clips enabled all pupils to see and to grasp concepts | 1 |

**Table 21: Observed aspects felt to impact most on learning**

The most commonly identified aspects were concerned with the management of the learning by the teacher. Impacts on learning arose when teachers provided opportunities for pupils to verbalise, to explain, to give examples and ideas, to review their knowledge through structured notes, to recall and reinforce through questioning, to discuss feelings and thoughts, and to read out aloud to encourage language development. Learning was impacted on further when teachers provided opportunities for pupils to work independently, and to try out their ideas through the medium of the interactive whiteboard.

In terms of engagement, the resources supported engagement strongly. Visual and moving imagery stimulated engagement, as well as auditory forms. Pupil use of the interactive whiteboard was also a strong stimulus for engagement.

In terms of resource features, the width and depth of information was clear. Where audio was used, diction was clear. Some resources were structured so that pupils could see and discuss comparisons, or choose from a range when working on a topic. Many video clips observed enabled pupils to grasp concepts and ideas readily.

**Teacher perceptions of reasons why it was felt that Espresso resources had an impact on teaching or learning**

Teachers were asked why they felt Espresso resources were having the impact that they were observing in classrooms. Their responses are shown in the table following.

| Reason why Espresso resources are felt to have had an impact | Frequency |
|---|---|
| *Responses concerned with access and engagement (27 instances)* | |
| Video engages, and audio helps listening and association (visual and auditory learners) | 8 |
| Pupils and teachers can access it easily/with interactive whiteboard | 5 |
| New medium/lively presentation engages and is enjoyed | 4 |
| Pupil attention is more focused | 2 |
| Pupil concentration span is longer | 2 |
| Colourful, bright and visual | 2 |
| Can be used with pupils working at different levels | 1 |
| Touching and interacting with resources is important for some pupils with special needs | 1 |
| Ideas can be reviewed in advance of the lesson and easily incorporated | 1 |
| Pupils enjoy the feedback from the games | 1 |
| *Responses concerned with supporting understanding and memorisation (12 instances)* | |
| Pupils remember the moving imagery and demonstrations | 4 |
| Video illustrates ideas and provides detail | 3 |
| Video resources can stimulate pupils to discuss what they see | 2 |
| There is a variety of ways of looking at things | 2 |
| Audio and video played separately allows the importance of listening to be identified | 1 |
| *Responses concerned with enhancing discussion and reinforcement (2 instances)* | |
| Resources in numeracy are open ended, so can discuss and do other things | 1 |
| Pupils are more willing to offer ideas and to discuss | 1 |

**Table 22: Teacher perceptions of reasons for Espresso resources having impacts observed**

Teachers identified reasons that fell into three different categories:
- Those concerned with access and engagement (27 instances).
- Those concerned with supporting understanding and memorisation (12 instances).
- Those concerned with enhancing discussion and reinforcement (2 instances).

Teachers reported reasons concerned with access and engagement most frequently. Teachers felt that the medium was engaging pupils, so that attention was more focused and of longer span. They felt that colourful resources, brightness and their interactive nature supported engagement. They felt that while video engaged visually, that audio also helped in terms of supporting listening.

Teachers felt that the resources were supporting understanding and memorisation, especially as moving imagery and demonstrations illustrated ideas and concepts well. They felt that video resources provided a stimulus for pupils to discuss what they were seeing, and the detail provided led to a deeper understanding.

Teachers found that many resources were open ended. This enabled them to integrate these with other resources and activities, but also enabled discussion on specific aspects more easily.

**Pupil perceptions about why they felt their learning had been helped**
Pupils were asked about how they felt Espresso resources had helped their learning. Their responses are shown in the table following.

| Reason why it is felt that resources have helped their learning | Frequency |
|---|---|
| *Responses concerned with managing learning and information handling (43 instances)* | |
| Plenty of information available/find out about subjects | 13 |
| Shows what is happening more easily on video | 10 |
| Detail and diagrams help to show concepts clearly/help writing | 6 |
| Easy to take notes from the information | 5 |
| Easy to use the resources | 5 |
| Can see key words and points easily | 3 |
| Like having another teacher in the classroom | 1 |
| *Responses concerned with sensory access (31 instances)* | |
| Sound/author reading helps a lot | 8 |
| Can see things and listen | 6 |
| Images with text help | 5 |
| Having to do things in an interactive resource | 3 |
| Able to hear an instrument | 2 |
| Pictures and sound help a lot | 2 |
| Mixture of images, sound and text help | 2 |
| Mixture of video, sound, pictures and text helps | 2 |
| Can see and remember more easily | 1 |
| *Responses concerned with motivation or engagement (23 instances)* | |
| Shown in an interesting/useful way | 9 |
| Showed things that were not known | 7 |
| Allows everyone in the class to be involved | 4 |
| Needed to make choices and answer questions | 2 |
| Children tell you things rather than adults | 1 |

**Table 23: Pupil perceptions of how Espresso resources were helping their learning**

Pupils responded with reasons that fell into three separate categories:
- Those concerned with managing learning and information handling (43 instances).
- Those concerned with sensory access (31 instances).
- Those concerned with motivation and engagement (23 instances).

Pupils referred often to aspects concerned with managing learning and information handling. They indicated that the resources offered plenty of information on subjects that were of interest to them, and that detail and diagrams helped to show concepts clearly. They also indicated that it was easier to see what was happening on video clips, and that the resources were structured in ways that supported note taking, through the highlighting of key words and points.

Pupils identified the auditory provision as being an important aspect in terms of supporting their learning, in terms of authors reading stories, hearing musical instruments, and listening to details and descriptions when video was playing, for example. This seems to support the notion that alternative voices within classrooms are important, and are recognised as being useful by pupils. Many pupils indicated that the mix of sensory provision was important to them; being able to see images, hear details, and read text, for example, was identified as an important mixture that aided learning.

Pupils identified a range of reasons that were concerned with motivation and engagement. They indicated that resources were interesting, and put together in a useful way, as well as showing them things that they did not know. Pupils also referred to the importance of their being able to make choices and decisions when using interactive resources, that all pupils could be involved

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when the resources were used on interactive whiteboards, and that children's voices were often used to relate ideas in the resources.

**Pupil perceptions about whether they thought the Espresso resources had in any ways helped behaviour, attendance, or interest**
Pupils were also asked whether they felt the Espresso resources were helping their behaviour, attendance, or interest. Their responses are shown in the table following.

| Whether Espresso resources are felt to have helped behaviour, attendance or interest | Frequency |
|---|---|
| Interest was helped | 47 |
| Understanding was helped/more information | 4 |

**Table 24: Pupil perceptions of whether Espresso resources were helping behaviour, attendance or interest**

No pupils indicated that the Espresso resources were helping their behaviour or attendance. However, many pupils indicated that their interest had been stimulated more through the use of the resources.

**Reasons believed to account for the impacts observed**
Lessons observed provided opportunities to identify reasons why Espresso resources might be having particular impacts. Reasons identified are shown in the table following.

| Reason believed to account for impact observed | Frequency |
|---|---|
| *Reasons concerned with engagement and motivation (12 instances)* | |
| Resources were enjoyed by pupils | 7 |
| Pupils were able to join in, together | 2 |
| Animation with a story being read out supported engagement on task | 1 |
| Pupils engaged when they needed to touch the interactive whiteboard | 1 |
| Pupils were engaged when the video clips were played | 1 |
| *Reasons concerned with the structure and provision of the Espresso resources (9 instances)* | |
| Resource structure supported review of knowledge and recall (including changing images) | 3 |
| Interactive games provided alternatives and supported reinforcement of concrete learning | 2 |
| Active listening was promoted by the resources and how they were used | 1 |
| Resources could be used flexibly so that discussion could be incorporated readily | 1 |
| Some pupils recalled and discussed points readily | 1 |
| Different resources allowed pupils to make choices when they came to work on a topic | 1 |
| *Reasons concerned with the management of learning by the teacher (8 instances)* | |
| The resource provided a constant visual presence | 3 |
| Pupils needed to verbalise points and ideas (exploratory learning through discussion) | 2 |
| Ideas needed to be extracted to create bullet points | 1 |
| Lesson flow, pace, and recognised time limits are maintained | 1 |
| Resources enabled differentiated activities to be set up | 1 |

**Table 25: Reasons for Espresso resources having impacts in classrooms**

It was clear from observations that there were multiple reasons for impacts on teaching and learning. In any one lesson a range of reasons could be identified, but the mix largely arose when three categories were involved and came together. Reasons observed fell into three separate categories:
- Those concerned with engagement and motivation (12 instances).
- Those concerned with structure and provision of the Espresso resources (9 instances).
- Those concerned with management of learning by the teacher (8 instances).

Engagement and motivation was a key reason for impact. The resources were generally enjoyed by pupils; they felt they could join in and be involved, they could see as well as hear a story, they could interact and touch the interactive whiteboard, they could engage with the detail provided on video clips.

Structure and provision of the Espresso resources was a second key reason for impact. Interactive games and resources provided alternative ways for pupils to engage with a topic or subject. Resources were sometimes structured in ways that supported recall and review, that promoted active listening, and promoted discussion.

The management of the learning by the teacher was a third key reason for impact (and was crucial). How teachers used the resources, and how activities were woven around the resources, were crucially important. Some teachers left images or resources on an interactive whiteboard during a lesson, to give a constant presence; some teachers encouraged pupils to verbalise and explain their understanding or learning strategies; some teachers asked pupils to extract key words and points that were shared afterwards; some teachers used the resources to provide for differentiated activities. When Espresso resources were woven together with activities and the use of other resources, lesson flow, pace, and working to recognised time limits were considered and in place, and these all aided the overall impact of the lesson, and supported learning at least to the level of understanding and recall.

**Issues raised by teachers**
During teacher interviews, teachers raised a number of issues. These issues are shown in the table following.

| Issue raised | Frequency |
| --- | --- |
| Need home access to resources | 12 |
| Could link to QCA resources more | 2 |
| Need more extension and games material | 2 |
| Need more material for nursery and reception classes | 2 |
| Not always easy to find things | 2 |
| Some topics are not covered | 2 |
| Need more material with smaller steps | 1 |
| Route Planner is not being used | 1 |
| Video could be longer for note taking activities | 1 |

**Table 26: Issues with Espresso resources raised by teachers**

Overall, few issues were raised. However, the issue that was raised most often, and the issue that was emphasised most frequently by teachers, was not having access to the Espresso resources at home for planning and review purposes. Teachers found this to be a major disadvantage. The other issues were largely concerned with wanting access to more resources, sometimes of specific types, or to cover specific subject areas. It was clear that teachers were largely satisfied with the resources that Espresso provided, and would welcome further access and even more content.

## 8. Conclusions and recommendations

**Overall levels of use of Espresso resources in schools visited**
1. Across the 20 schools visited, use of Espresso resources was at a high level in some schools, but for most schools the resources were used for specific topics or subjects. In some schools the use of the resources had not moved beyond use by one or two teachers.
2. Most reported uses of the resources across the 20 schools (mainly primary schools), was in Key Stage 2. However, where teachers were using the resources in Early Years, Foundation, and Key Stage 1 classrooms, the uses were felt by teachers to be worthwhile and significant.
3. Most uses reported were in the areas of literacy, numeracy, and science. Teachers reported that the science resources were particularly useful. Although high levels of use were reported for literacy and numeracy, some schools were not using Espresso resources for these subjects as they already had existing resources that they used. Teachers who used resources to cover topics in history, religious education and multicultural aspects, stories, French, and personal, health, and social education were smaller in number, but uses were found to be significant and particularly valuable.

**Access to resources**
4. Most teachers provided access through an interactive whiteboard within a classroom. In many cases the classrooms had separate carpet and table areas, so that access for class teaching and table work could be separately accommodated. In a few cases only PCs within a cluster or suite were accessible.
5. Some teachers had access to PCs within a classroom, to enable pupils to work individually or in groups on extension material or on differentiated material. In some cases, teachers used PC clusters or suites to enable separate groups to work more independently (especially on research and note taking activities).

**Uses of Espresso resources and pedagogy**
6. The most commonly observed way in which Espresso resources were used was to check understanding and to extend understanding further. Some schools used Espresso resources to encourage independent learning, through research, note taking, and writing activities. In some cases the work was structured so that significant learning outcomes were arising (pupils becoming aware of the knowledge accessible through listening compared to seeing, or pupils becoming aware of the aspects of knowledge that they knew best and those that were less well known to them, for example).
7. In some cases teachers were using Espresso resources to stimulate interest, and provide ideas and techniques for writing, for example. In other cases teachers were using Espresso resources to generate discussion, or to provide a framework for discussion about aspects concerned with feelings and ideas.
8. A number of observed uses focused on video clips to support the understanding of concepts and ideas. Some of these examples worked particularly well, and enabled pupils to understand concepts in ways that would not have been possible otherwise.
9. Most uses of Espresso resources were in starter, introductory, or plenary activities, rather than in main activities within a lesson. However, where resources were used to support main activities, pupils were focused and stimulated by the resources and learning was supported by the ways in which teachers handled these within the lessons.
10. The resources were used in three different ways: to support information-focused activities; to support engagement and activity-focused sessions, and to support communication-focused activities. Of the lessons observed, information-focused activities were most frequently

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observed, followed by uses to engage and support the tackling of activities in particular ways. There were only a few examples of activities that were communication-focused.

**Classroom management features**

11. Teachers needed to consider three classroom management aspects if uses of Espresso resources were to be successfully implemented to support learning: physical access; pupil involvement; and how learning would be supported.

12. Physical access was not always easy in all classrooms, as some interactive whiteboards were set at a height where pupils could not easily touch them, and pupils sometimes needed to stand on a platform, a chair or table to do so. A separate carpet area helped pupils to join in together, especially when games and songs were being used, which pupils enjoyed a great deal. A few teachers placed a table in front of the interactive whiteboard, to enable practical materials to be used and demonstrated. This was useful in those sessions observed.

13. Pupil involvement was crucial to success of uses of resources. Pupils who sat for prolonged periods without being actively involved became less engaged as time went on. Some teachers explored the ways in which PCs in the classroom, or PCs in clusters or suites, could provide for extension work at a more individual or group level. In one case, a teacher asked a pair of pupils who had used a resource on a PC to teach the next pair of pupils how to access and use it.

14. Some teachers supported learning by asking pupils to work on specific differentiated material. Some teachers supported learning by asking pupils to touch or work at the interactive whiteboard (felt to be of particular value to kinaesthetic learners). Some teachers structured the use of resources so that pupils had opportunities to compare and contrast their learning at various times (which appeared to be of particular value to pupils).

**Espresso resources and teaching considerations**

15. Most teachers found resources that they considered to be of particular value in terms of supporting their teaching. In some cases it was clear that subjects that were not a teacher's specialism were being specifically supported through use of the resources. The width of uses across subjects and topics was wide, and this suggested that the resources could be readily incorporated into lesson structure and provision.

16. Pupils reported that they felt that the resources that they liked most were video clips, interactive activities and games, information factfiles, books and stories read by the author, and new items.

17. Observations highlighted the value that the resources offered in terms of enabling teachers to discuss points when resources were used, or after they had been used. Features such as the ability to stop videos being played, or to replay short videos, was clearly of value in terms of both reinforcement and activity structure. Observations indicated that the resources had a range of features that were supporting teaching, and that were supporting engagement.

18. Teachers found that they could use resources often for starter, introduction, or plenary sessions. They found that the resources met objectives for learning, and enhanced what they could otherwise provide (in different ways in different resource cases). Specific features of video and imagery, and audio were highlighted by teachers as being important.

19. Pupils felt that teachers liked to use and that teaching was supported by the resources. They felt that teachers had access to more interesting information, and that explanations available through additional detail, diagrams, and video clips were of particular value. They also felt that teaching was supported by access to stories read by authors.

**Espresso resources and learning considerations**

20. Teachers felt that Espresso resources helped in a number of ways in terms of supporting learning. Most responses suggested that motivation and engagement had been supported,

while many teachers indicated that memorisation and association of ideas had been supported. A few teachers felt that learning patterns or approaches had been supported, or that particular roles or tasks had been supported.

21. Pupils felt most often that the Espresso resources had helped them with understanding concepts or gaining details or information. Some pupils felt that specific subjects or topics had been enhanced, while some felt that particular activities or aspects of learning had been supported (such as encouraging writing, or providing useful writing frameworks).

22. Observations in lessons suggested that impacts on learning were dependent upon how the teacher managed the learning processes. Some teachers encouraged verbalisation, or the review of knowledge, or encouraged pupils to try things out. The engagement value of the resources, and the features of the resources that supported particular ways of learning, were also aspects that were important.

**Overall impacts of Espresso resources**

23. Overall, teachers felt that the Espresso resources enhanced access and engagement for pupils. They also felt often that understanding and memorisation had been enhanced, and that discussion and reinforcement was able to be developed further.

24. Pupils felt that Espresso resources were helping the management of their learning, and the management of information handling. They felt that sensory access to learning was being enhanced, and that their motivation and engagement was enhanced as a consequence.

25. Most pupils interviewed felt that their interest in subjects, topics or school work generally had been enhanced. They felt that their understanding had been supported in many instances. However, no pupils reported that the use of the Espresso resources had affected their behaviour or attendance.

26. Observations suggested that the key features to successful uses of the Espresso resources focused around three areas. Uses of Espresso resources could lead to an enhancement of engagement and motivation; teachers could manage learning in different and enhanced ways; features of the Espresso resources could be used positively to support enhanced learning.

**Issues raised by teachers**

27. Few issues about the Espresso resources were raised by teachers. However, many teachers felt that not having access at home was a major disadvantage, and limited their potential to review and plan uses of the resources.

28. Teachers felt that a greater width of resources would be useful generally, although the value of existing material was recognised.

**Recommendations**

29. Uses of Espresso resources within the 20 schools visited, supported and enhanced teaching and learning in a range of ways. The outcomes were evident in terms of short term outcomes (enhanced recall, review, interest), but no evidence existed of longer term benefits and outcomes. However, the value of resources was felt by many teachers to be high, and teachers wanted to have continued access to these resources.

30. A major disadvantage for teachers was lack of access at home, for review and planning purposes. In the future, home access needs to be addressed if wider use of the resources is to be seen.

31. Uses of resources observed were widely different, but some uses offered significant pedagogical benefit and potential. There is scope for sharing these forms of practice more widely across schools.

# References

Singleton, M. (2005). Highlight Report Project: Espresso and Cache Box Rollout. CLEO: Lancaster