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Independent Evaluation of the uses of Espresso online digital resources in primary schools

Final Report - Management, Time and Cost Benefits

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CONTENTS

THE REPORT

In 2010, Espresso commissioned an academically-based and fully independent evaluation study to explore outcomes of uses of its online resources in primary schools. The aims of the study were to explore how Espresso resources are used to support teaching and learning, to assess cost and associated benefits arising, and to explore whether levels or types of use in schools might be associated with measures of pupil achievement and school performance.

The evaluation that was undertaken drew on a range of different forms of evidence, analysed in ways to match the needs of the specific aims being explored. In order to make the full report of the study and its findings more easily accessible, and to enable the reader to focus on selected aspects of specific interest, the entire report has been divided into four sections.

Section 1   Summary – this section contains two main elements, Report Headlines and an Executive Summary.

Section 2   School Uses and Learning Impacts – this includes an introduction and background to the study, details of the structure of the study relating to school uses and learning impacts, descriptions of schools providing evidence, details of how Espresso resources are used in schools and learning outcomes related to these, the pedagogies that teachers adopt when using the resources, and key aspects of learning that are impacted by uses of Espresso resources.

Section 3   Management, Time and Cost Benefits – this includes an introduction and background to the study, details of the structure of the study relating to management, time and cost benefits, details of benefits arising, and how these are calculated at school and wider levels.

Section 4   Attainment and Usage Levels – this includes an introduction and background to the study, details of the structure of the study relating to attainment, performance and usage levels, the forms of data that were gathered and used for this element of the study, and the forms of analysis that were undertaken, together with a range of detailed statistical findings.

1. INTRODUCTION

Espresso online digital resources have been developed and made available to schools since 1998, when the National Grid for Learning (NGfL) initiative was launched by the government department for education. The company was able, through a £91,000 grant won in 1997 from the British National Space Centre, to set up its first online distribution trials. Since that time, Espresso resources have been created continuously, made accessible, and used widely by teachers and learners in primary and secondary schools. A distinctive interface associated with Espresso resources has been used since those early days, and the Espresso services for schools are maintained currently through dedicated teams who provide technical support and training, direct school contact, and training sessions (5,000 were run in 2009, which covered training for senior managers as well as for teachers). Espresso provides both support (training and helplines) and digital resources in the form of Espresso resources (to 9,867 primary schools in April 2011), and in the form of Clipbank resources (to 680 secondary schools in April 2011).

Subscription to Espresso is based largely on pupil numbers in a school. In early 2011, a 2-year subscription would cost a school £5 per pupil on average, plus 75p per pupil on average for pupil home access, and £75 per school for access to Content Club. A subscription includes teacher home access, as well as an annual training session for each school (which is a popular feature with schools).

Resources are offered to schools in a number of forms, and are organised for teachers and learners in areas associated with specific Key Stages, subjects, and topics. Resources are provided in text, image and video formats. News items are provided weekly, both in 'News Bite' form, as well as in formats that are longer and include more detail (see Figure 1). Text-based news articles are produced in three different formats – in original newspaper format, in an Espresso format, and in a summary format (the three formats being differentiated according to language and literacy levels). Video clips are a key feature of the resources; they can now be played in different ways – using coupled video and audio, or in audio form only, or in video form only.

Figure 1: News items are provided in different formats to suit different learning needs

Espresso resources are characterised by certain features that set them apart from other sets of online resources. The interface for teachers and pupils is clear, colourful, and uncluttered. A number of recognisable characters appear with the resources, but the resources are largely teacher-based, rather than providing standalone learner-based activities (which is the focus of other online resource sets). Espresso resources are rich not just in visual terms, but also in auditory terms, and in terms of use of short video clips. The material provided is as 'real' as possible (rather than being largely cartoon-based), and is kept 'up-to-date'. By comparison, other online resource sets are less video-based, or provide less 'real' material, or offer test exercises rather than focal topics aimed at raising awareness to ideas and knowledge and stimulating discussion. The distinctiveness of Espresso resources means that they can be considered by teachers and learners to be complementary to other sets of resources. For example, TES Connect resources are largely created by teachers and while they can be downloaded they exist in a wide variety of formats (TES Connect, 2011), Education City resources are concerned more with learner activity and many are highly cartoon-based (Education City, 2010), and Sam Learning resources provide test banks, albeit in different formats, using drag and drop and box completion exercises, for example (SAM Learning, n.d.).

Espresso resources are popular with schools, and many schools subscribe to these resource banks, either individually, or through local authorities (LAs) or regional broadband consortia (RBCs). The resource banks are held on server systems, and Espresso accommodates access through a range of different server facilities. In September 2010, a total of 8,978 primary schools subscribed to the resources. The numbers of schools that gained access through particular server systems is shown in Table 1.

Table 1: Numbers of schools gaining access through different server systems

Server system	Numbers of schools gaining access
Linux boxes	3,491
Cachepilot equipment	3,462
Atomwide servers	409
CLEO servers	748
Old Linux boxes	439
Other servers	429
Total	**8,978**

2. THE INDEPENDENT EVALUATION STUDY

Espresso has commissioned this academically-based and fully independent evaluation study to explore outcomes of uses of its online resources in primary and secondary schools. For this evaluation, there are three complementary aspects to, or aims of, the study. In this section of the report, it is the second of those aims that are detailed: An assessment of cost benefits of using Espresso resources. This will build on a previous study recently completed (Passey, 2010), which looked at cost benefits associated with uses of learning platforms. The methodologies employed in that study will be used in the context of Espresso resources.

2.1 Overall study design relating to aspects of management, time and cost benefits

The core elements of the study that have gathered essential evaluation evidence relating to aspects of management, time and cost benefits are:

- A review of experiences of a selected group of practitioners (contacted by Espresso initially and agreeing to involvement with the evaluation). The completion of questionnaires or interviews with the practitioners was the responsibility of the evaluation team and was undertaken entirely independently of Espresso. This element gathered evidence from 45 schools, and findings are detailed in Chapter 3.

- A wide collection of evidence from any teachers and schools wishing and willing to be involved. Access to a set of online questionnaires was managed by Espresso, giving links to information and the questionnaires themselves through their training sessions and their online website. The set of online questionnaires was proposed and agreed on the basis of findings from the initial questionnaires and interviews (and findings are detailed in Chapter 4).

2.2 Schedule for the first component of the study

Evidence for this component was gathered from a range of head teachers and teachers, through semi-structured interview schedules, conducted by telephone and email. The interview schedule was designed to identify levels of use of the digital online resources, focus of uses, and benefits and outcomes identified. The interview schedule was initially constructed in draft, reviewed by personnel selected by Espresso (to ensure details matched experiences of Espresso personnel and trainers), and then agreed by the University Research Ethics Committee (UREC).

The final schedule is shown in Appendix A. When the schedule was finalised, a number of practitioners were approached by Espresso. Espresso asked practitioners if they were willing to talk to the evaluation team about their experiences, and to give feedback to indicate how digital online resources were offering management, time and cost benefits, as well as any issues arising. For those willing to be involved, Espresso provided contact details; the research team set up discussions, asked questions of the practitioners through a questionnaire or interview. In total, 45 responses were gained (43 through questionnaire completion, and 2 through telephone interviews).

2.3 Online survey schedules for the second component of the study

Evidence for this component was gathered from the widest possible range of head teachers and teachers using Espresso resources. The schedules for the second component of the study were created on the basis of findings from the first component of the study. The questions used in the two online schedules that contained questions relevant to management, time and cost benefit concerns can be seen in Appendices D and E.

The surveys were introduced by information presented on two web pages, giving details about informed consent, and then giving access to the survey questions themselves (see Appendices B and C). The information sheets asked practitioners if they were willing to provide details about their

experiences, to give feedback to indicate how digital online resources were offering management, time and cost benefits. All survey responses were gathered in anonymous form, and no electronic link back to individuals was set up. The online questionnaires were made accessible online, and teachers were made aware of these in Espresso training sessions. All teachers could then respond to these questionnaires within a given time period. Responses came to the evaluation team directly, so that anonymity was ensured. The responses allowed a potentially widely representative sample to be gained. The numbers of respondents was not limited for this part of the study.

3.   COST AND ASSOCIATED BENEFITS

3.1   Whether Espresso resources help in terms of time

Initial details relating to time and associated benefits were gathered from the first set of questionnaire responses. Schools were asked whether Espresso resources helped in terms of time. Of the 45 schools, 42 reported that Espresso helped in terms of time when needing to search for and identify suitable resources. In 2 cases, schools reported that their time was helped, but that there was still a need to keep up to date, and that this was in itself an issue. Comments from teachers indicated some of the ways that Espresso resources helped them with time, "Espresso is quick and easy to search and its comprehensive range of resources mean that teachers save time searching in other places for resources that may not be of as high a quality", "It helps to have so many resources in one place", "Oh, yes! Espresso is a one-stop shop on the whole. Saves time certainly", "Immediacy and familiarity – there is too much on the web", "Yes, good for quick access to resources and not searching the internet for sites that may be filtered in school", "It frees up time where in the past you may have made resources. We also have a shared Espresso folder on our network so we can save any route maps we make, so we can share resources", "Now I know about the staffroom and route finder I think that this is definitely a yes", and "Yes, once we know what's there, they are time savers..." Some teachers indicated that there were reasons why their time was not helped in every respect, "There are occasionally times when there aren't resources specific enough, but then the curriculum is ever expanding and it is unrealistic to expect everything from Espresso. Phonics is always a big request from colleagues – can resources be made available please?!", "Once you learn how to find what you are looking for. It can take time to search for things unless you know already that they are there. Linking modules to the staffroom area helps to make searching quicker though. Still sometimes hard to find things", and "Yes in many ways but the problems teachers have are finding the time to search Espresso, especially when planning at home as many teachers are still unsure about home access".

3.2   Whether Espresso resources are easy to find

Schools were asked whether Espresso resources were easy to find. Of the 45 schools, 34 reported that Espresso resources were easy to find. In the other 11 cases, there was some reservation, teachers stating: "You can find items reasonably well; a better search facility would be a possible improvement though," "Sometimes," and "Not usually a problem." One teacher indicated that it had become easier over time (giving a historical perspective): "It is now much easier than it was. I have been using Espresso since it was first released to schools. We had an ISDN line and a satellite dish on the roof of the school with a cache server. The service has improved ten-fold and it is now much easier to find what you need." Some teachers indicated that they could not always find resources easily: "Sometimes I can know something is there and still have trouble finding it", and "Not always especially if using the search tool", but another teacher who was involved in training highlighted the need for teachers to know about certain facilities more widely: "I would say very few staff in the schools I have visited use the staffroom at all – once I've shown them they cannot believe they have missed out on such a hugely valuable resource – how can the staffroom be promoted more for teachers". One teacher indicated that the search facility used did not always pick up all resources: "recently staff searched in the search bar for "pirates" and found nothing. However we then discovered there was a full resource box available. Sometimes the search facility doesn't bring up everything."

Comments from teachers indicated that searching was generally felt to be easy and productive, "Yes, there are several different ways of searching, you can do a very quick search which nine times out of ten brings up what you want anyway. You can search in much more detailed advanced searches as well", "The search facility has improved greatly and now the children can search for anything they want and they've got a bank of links to whatever it is, text, or newspaper articles or videos or whatever", "especially when planning via the staffroom or using advanced search," and "I can easily work out if there is or isn't a resource available".

3.3 How long it takes to find a resource

Schools were asked how long it takes them to find a resource. Across the 45 schools, most reports indicated that resources could be found within 30 seconds to 10 minutes, with some 2 to 3 minutes being an average across the responses provided. As one teacher said, "As teachers have a good idea of the way Espresso resources are organised, resources can usually be located within minutes." One teacher did say that it took, "5 minutes, but can be longer for less experienced members of staff," and another teacher at the extreme end said "Anything from a few minutes to half an hour depending on what I want and if I know what I'm looking for." Another teacher said that it, "Depends on the resource and if it exists. Sometimes things can be found very quickly, sometimes not." Yet another teacher said it took, "Seconds, maybe minutes on a bad day!"

3.4 How often you are unsuccessful

Schools were asked how often they were unsuccessful when looking for resources. Schools varied in terms of their responses to this question. The frequency of different responses is shown in Table 2 following.

Table 2: How often schools do not find resources

Response	Frequency
Never	1
Rarely/very rarely	10
Not often/sometimes/infrequently/occasionally	23
About 1 in 4 or 5 times	3
Quite often	2
Weekly	3
Frequently/3 out of 5 times	4

On balance across these schools, it appeared that about 34 teachers found there were only a few occasions when a resource was not found, while 12 found quite frequent occasions when resources were not found. Comments from teachers suggested, however, that there could be quite distinctive reasons why resources were not found, "Quite often, we use it as a starter then look elsewhere. We have to cover a lot of Curriculum Cymreig (Welsh history, Geography, etc.) areas which are not really covered by Espresso as well," or "Sometimes you find a resources but it is down!" or "Maybe 50% of the time. There is a resource for every topic but not for every particular mini-topic within the topic and certainly not for every objective. To be fair, though, they don't argue otherwise." Some teachers recognised that very specific resources might not be available, "Only when I am looking for something that is very 'niche'", "Often find that I don't wish to use the resources," and "Maths reinforcement games/tasks/activities are the one weaker area I would say." Other teachers found they could usually access resources as they wished, "Staff generally have a good knowledge of Espresso content so it not very often that suitable resources are not located. The fact that the content of Espresso is updated regularly, in consultation with schools, also ensures that there is a wide range of suitable and relevant resources meaning that most topics are covered and suitable resources can usually be located. "

3.5 How long it would take to find resources on the internet

Schools were asked how long it would take to find resources on the internet. Schools gave quite varied responses to this question. The frequency of different responses is shown in Table 3 following.

Table 3: How long it takes for schools to find resources on the Internet

Response	Frequency
A lot longer/perhaps double the time	17
10 to 15 minutes	8
Similar to find it, longer to vet it	8
Up to 5 minutes or so	6
Depends on the resource	2
Up to an hour for something of high enough quality	2
Not much longer if using other familiar sites	1
Too long	1

Overall, the pattern suggested by teachers was that it would take a lot longer to find a resource on the internet, not just because of the vast amount of material, but also because of the need to vet it for suitability in terms of using it and matching the needs of the pupils and the learning topic: "The tricky bit is finding if it is relevant – and even then we may not be able to access it from our school network! (an added benefit of Espresso!)". As some teachers said, "Internet searching can take a lot longer due to the vast range of materials available. Also once a resource has been located its suitability needs to be assessed. This can lead to the need for further searching if the resource is deemed to be unsuitable. Therefore Internet searching can take anything from 10 to 30 minutes and beyond," "Much longer at times because you get so many results on searches," "Similar time but you need to vet the source, you do not need to do this with Espresso as it is a trusted site!", "Much longer to sort and sift through age appropriate material and sites that I could bookmark for children to use safe in the knowledge that they could not hop out of a safe site into the unknown and insecure," and "Oh loads longer because the resources you'd find on the internet wouldn't necessarily be suitable for the age of children that you're teaching, so you would find something that would be a great big long piece of text, not actually anything that five year olds are going to understand, and certainly not use."

3.6   The balance between Espresso and non-Espresso digital resources

Schools were asked what their balance of use was, in terms of Espresso resources and non-Espresso resources. The schools varied in their responses to this question. The frequency of different responses is shown in Table 4 following.

Table 4: The balance between Espresso and non-Espresso digital resources

Response	Frequency
Almost all Espresso resources	1
Twice the number of Espresso resources used	10
About the same number of each	20
Depends on the Key Stage, less at KS2`	1
Twice the number of non-Espresso resources used	7
About a quarter or a fifth of all resources used are Espresso	4

Overall, it appeared that Espresso constituted about half of the use of all digital resources across these schools. However, the nature of the other digital resources differed from school to school. In some schools the other digital resources came from mainly internet-based searches, while in other schools they came from other commercial sources. For example, one teacher said, "The digital resources we use Espresso, 2simple and Sherston are our three biggest areas. At least a third if not slightly more is Espresso. They are the only three really big digital resources that we use." Other teachers indicated using Easiteach resources, BBC Bitesize, and ITP resources from the National Strategies.

3.7   Cost benefits

Schools were asked whether Espresso resources offeedr them any cost benefits. Across the 45 schools, 36 schools (four-fifths) identified gains that they felt offered positive cost benefits. An important element of the responses by schools was the fact that the resources were kept up-to-date, and this meant that schools did not have to search for other material, or to create or amend material. The width

of resources was also reported as a cost benefit ("I believe a school could quite happily support its curriculum subjects (i.e. make ICT links) just using Espresso and not need to purchase any other software – that would save costs ," and "Provides resources you wouldn't have access to otherwise"). Having resources in one place was also recognised as a cost benefit: "Espresso is far better value than numerous CD-ROMs and site licences."

As one teacher said, "Resources cover a wide range of areas meaning the teachers and coordinators do not have to spend budgets buying in resources from other areas (e.g. purchasing computer software or educational videos)." As other teachers said, "Children love it, all topics etc. in one place so not having to spend on individual topics resources," "Yes – we don't have to keep buying in DVD resources which date rapidly, may be lost or damaged." Training was identified as a cost benefit by one teacher, who said, "You get training every year, for your teachers and all your support staff and it's literally tailored." The cost benefits associated with being able to access up-to-date resources was emphasised by one teacher, who said, "Yes. As IT Co-ordinator, I'm well aware how quickly software develops and dates. There is, in the longer term, a saving to be enjoyed with Espresso as new software is not nearly as frequently purchased as was the case pre-Espresso." As another teacher said, "We now have home access too." More pragmatic cost benefits were identified by another teacher, who said, "When all children can follow a learning pathway at the same time i.e. in ICT suite it saves money on printing colourful resources." In moving forward to the future, one teacher said in terms of benefits: "Ease of access – all resources are guaranteed to work in school without our EMBC blocking content! Also, being able to embed videos into our VLE (Fronter) is great! It would be fantastic if we could embed activities/learning paths too – is this something that may come in the future?!"

One teacher identified a range of benefits from other teachers across the school:
- "My lessons are varied and I can communicate topics that I am teaching through a fun / interactive / different medium."
- "It helps our pupils access the work and I can engage them with different activities / videos - it has up to date current news feed which I use for pshe that once again is user friendly and easy to communicate across to pupils."
- "It's easy to access and use. I like that I don't have to prepare the resources myself and can embed the videos etc. easily into my lessons."
- "Pre-made resources, reduce workload, and pre-planned with assemblies, give you an easy structure, focus resources etc."
- "Having good, high quality visual resources that meet the needs of the students that I don't have to make!"

In summary, one teacher said "The benefits are simple. The children love it."

3.8   Whether resources are placed into long or medium term plans
Schools were asked whether Espresso resources were placed into long or medium terms plans. The frequency of different responses is shown in Table 5 following.

Table 5: Whether Espresso resources are placed into long or medium term plans

Response	Frequency
Placed into medium term plans	26
Used as the need arises	25
Placed into long-term plans	22
Placed into short-term plans	6
Some teachers do this	4

Overall, there was not a single most commonly reported way to use Espresso resources in terms of planning; they were used for medium term plans, as well as at times when needs arose, and for long-

term plans. Overall, however, it was clear that many schools planned to use Espresso resources in lesson or topic activities regularly.

3.9 Whether teachers new to a school know about Espresso

Schools were asked whether teachers new to the school knew about the use of Espresso resources. The frequency of different responses is shown in Table 6 following.

Table 6: Whether teachers new to a school know about Espresso resources

Response	Frequency
Most do	9
Not sure, but it's included in training/informal support	9
Not always	8
No	5
About half do	4
A recent new teacher knew about it	3
Not known	3
No new teachers for some time	1

Clearly experiences varied, and responses varied. In many cases training (or team support structures) within a school included the use of Espresso resources, and some schools indicated that they used Espresso training to keep staff up-to-date, and to train any new staff. As one teacher said, "Teachers do not always know about Espresso. As a school we readily take up our annual Espresso training to ensure that teachers, old and new have the knowledge and understanding to access and utilise Espresso effectively." Another teacher commented that, "we do include this in their training. Teaching assistants have also had training on Espresso." One teacher indicated how the local authority and the local teacher training higher education institution had taken Espresso use on board, ensuring levels of knowledge about its use: "We are lucky in that new staff from Staffordshire schools already know about Espresso, because as a county we all use it. In addition many of our NQTs come from the University of Wolverhampton. We are a learning partner school, and the university subscribe to Espresso so that students from there already know about Espresso. Teachers from other authorities or other universities may not be as familiar."

3.10 Measures of cost benefits to teachers and schools

It is clear that Espresso resources are valued by schools:
- Teachers feel that they can rely upon them, in terms of quality of material, how they are presented, and how they match to their needs to support learning.
- This saves them time, in searching for other materials, where the quality and match to learning needs is not known to the same extent.
- It saves when time would need to be invested in vetting, as well as selecting, and potentially researching when a resource was found that was not suitable.

The evidence provided by teachers indicated that although there might not always be resources that teachers might want within the bank of Espresso resources (and teachers on average reported that this might happen perhaps on 1 in 4 or 5 occasions on average), that when these did exist, time to find them was short (in the order of 2 to 3 minutes), and it was clear to teachers how they could use these resources in their teaching. The Espresso resources appeared to match pedagogies that teachers saw as being useful and valuable (indeed, this aspect was highlight as a focus for the second component of the evaluation).

Teachers reported that they used Espresso resources on average perhaps twice a week (some clearly used the resources more often, while some used them less). Teachers also reported that they used digital resources as a whole about twice as often, so they were using digital resources about four times

a week. Using evidence reported by teachers, it was possible to analyse the impact of this pattern on a teacher's time initially.

If we accept that a teacher uses digital resources four times a week, and there are 39 weeks in the school year, then the time taken to find the resources is:
- For Espresso resources, 39 x 2 x 2.5 minutes = 195 minutes.
- For non-Espresso resources, 39 x 2 x 5 minutes = 390 minutes.
- If the match is not successful in terms of quality and learning need, then the time involved is much higher. So, if half of the non-Espresso resource searches are not initially successful, then this adds another 195 minutes of time.
- In total, this comes to 780 minutes of time involved for a teacher in a year to search for digital resources, to be successful both in terms of match of quality and learning need.

If alternatively we accept that a teacher relies on Espresso resources, and knows these sufficiently well so that they are planned into lessons, or used as the needs arises, then the time involved is:
- For Espresso resources in total, 39 x 4 x 2.5 = 390 minutes.
- Saving 390 minutes of time across the year for the teacher.

For a two-form entry primary school:
- It is known from teacher responses that Espresso resources match needs for pupil interactions across all year groups.
- So, teachers from nursery to year 6 could be using Espresso resources.
- 16 teachers would be involved.
- Across all teachers there would be a saving of 6,240 minutes of time across the year.
- This equates to 104 hours of time.
- At an average hourly teacher rate of £60 (identified within a recent evaluation, Passey, 2010), this equates to a cost benefit saving of £6,240.

Additionally, it is important to note also that:
- Teachers stated that the presentational and support qualities of Espresso resources were recognised as being high.
- The time or cost benefit savings would be likely to accrue from the personal time of teachers, as searching might well be done at home rather than in school, and would therefore positively contribute to well-being.
- Cost benefit savings associated with qualities of experience for the pupil, time savings associated with reductions in the need to transfer or copy files from one place to another, with the recognition that copyright and usage does not need to be considered, and that printing or copying of materials is not needed, have not been included in these figures.
- The cost of subscription has not been included, and the cost of training has not been included. However, it can be argued that the current subscription price to Espresso resources should cover the cost benefits associated with Espresso's stated aims - gaining quality resources, updated regularly, presented well and clearly, that are tailored for use with pupils and target specific subject topics or activities. This being the case, and the fact that the analysis above does not identify this range of benefits, it could be argued that the cost benefits identified above go beyond those that are gained through the subscription.

3.11   Measures of cost benefits to the subscriber base

Using a cost benefit saving of £6,240 calculated for a two-form entry primary school that fully integrates uses of Espresso resources when compared to additional time used by a two-form entry school using Espresso and internet-based resources equally, it is possible to calculate how this figure might scale up across the subscriber base of 8,978 primary schools. To do this, details of patterns of usage related to school size need to be known. Patterns of usage can be identified from the usage

statistics data provided by Espresso. These data, provided for some 100 schools randomly selected by alphabetical ordering appearing, show numbers of visits (which relate to sessions when the resources were used) each month from January to July 2010. Taking schools where a full set of session was available, the average number of sessions per school was about 1,100 across these 7 months. Assuming that this level of sessions was equivalent to equal use of Espresso and internet-based resources (and this crude indicator is clarified in the second component of the research), then schools where there were much higher levels of session numbers, roughly twice the number of sessions or more (2,000 or above), could have been assumed to have had Espresso resources fully integrated. These schools (9 in number) would have gained a cost saving benefit of £12,480 per annum (some £780 per teacher). Using figures in a similar way, those schools with between 1,100 and 2,000 sessions over the 7 months (17 in number) would have gained a cost saving benefit of £9,360 on average (some £585 per teacher), and those schools with less than 1,100 sessions (64 in number) would have gained a cost saving benefit of £3,120 on average (some £195 per teacher). The assumed grouping here is explored in the second component of the research (detailed in Chapter 4).

Using the same set of 90 schools, there were 87 where numbers of teachers within the schools were also known. Applying the cost benefit saving to each school on the basis of its usage record (according to the 3 categories identified above), and the numbers of teachers within that school, a total cost benefit saving for a year of some £399,984 would accrue (an average cost benefit saving of some £4,651). If the same usage pattern and size of schools applied across all 8,978 subscribed primary schools, then the total annual cost benefit saving would be some £41,756,472. This figure assumes that all digitally-based resources accessed by all schools other than Espresso resources are internet-based, rather than being accessed from any other commercial or non-commercial source that can be valued or relied upon in the same way.

4.   A WIDER SURVEY

4.1   Evidence from the survey instrument used

It was clear from responses from some schools when completing the initial questionnaire that they experienced difficulties in finding time to do this, and accommodating this within the need to meet other priorities. There were aspects of the evaluation findings where greater quantities of information would clearly provide a more robust picture, and greater qualities of information would provide more details about aspects that at that time were unknown. In view of the need to balance these two elements, online survey instruments were produced, which were shorter than the initial questionnaire, and focused on more specific aspects. The aspects chosen for two of the surveys, which both included questions that related to aspects of management, time and cost benefits, were:

- Subject and topic uses of Espresso resources.
- Time and management benefits.

4.2   Format of online survey instruments

For each of these areas, a separate survey instrument was produced, and this survey instrument largely consisted of closed questions (where teachers needed to click on a response, rather than producing a written response). These instruments were made accessible via the Espresso site:

- They were offered at the same time, and teachers could choose which they completed.
- Surveys were available for a selected period of time, until a sufficiently high response rate had been gathered.

4.3   Questions for the online survey instruments

Taking account of the early evidence gathered from teachers, questions in each of the surveys (shown in Appendices D and E) were selected to gather useful further detail. The evaluation team put the survey questions into an online form, and provided URLs for testing them. The evaluation team provided web pages to explain the purpose of the surveys, how they would be used, and links from that page for teachers to access the surveys (see Appendices B and C). Espresso made schools aware of these surveys, and made them accessible through their training sessions and through their website.

4.4   Responses to the surveys

By the end of March 2011, all surveys were closed. Numbers of responses recorded in each case were:
- 135 for Survey 1 (Subject and topic uses of Espresso resources).
- 100 for Survey 3 (Time and management benefits).

Across the surveys, there was some variation in terms of year groups taught by the teachers who responded. Nevertheless, there was useful representation across the age groups for both surveys. The numbers of teachers responding, according to year group taught, are shown in Table 7.

Table 7: Numbers of teachers according to year group taught who responded in each survey

Year group taught	Number for Survey 1	Number for Survey 3
N	1	1
R	15	12
1	19	12
2	18	13
3	18	13
4	15	10
5	16	17
6	27	15

4.5 Findings from Survey 1

Survey 1 asked teachers about their uses of Espresso, including how often they use the resources. Their responses are shown in Table 8.

Table 8: How often teachers use Espresso resources

How often	Frequency of responses
Pretty much every day	47
Certainly once a week on average	69
Perhaps every couple of weeks	10
Certainly once a month	5
Less than once a month on average	3

These responses showed that most teachers used Espresso resources regularly, at least once a week on average. Using these frequencies, and a 28 day per month period (20 school days) an average rate could be easily calculated. On average, teachers were using Espresso resources on 9.25 days out of 20 (about once every couple of days).

Teachers were also asked how often they used resources that were not Espresso. Their responses are shown in Table 9.

Table 9: How often teachers use non-Espresso resources

How often	Frequency of responses
Pretty much every day	80
Certainly once a week on average	40
Perhaps every couple of weeks	12
Certainly once a month	2
Less than once a month on average	0

Teachers reported that they used non-Espresso resources more often than they used Espresso resources. Using the same form of calculation, on average, teachers were using non-Espresso resources on 13.33 days out of 20 (more than once every couple of days). Teachers were asked about the nature of these non-Espresso resources. Their responses are shown in Table 10.

Table 10: Which other non-Espresso resources teachers use

Form	Frequency of responses
Other commercially purchased sets	71
Sets that are freely accessible	88
Ad hoc Internet-based resources	105

Although many teachers used these other sources, it was possible that sets that were freely accessible, including internet-based resources accessed on an ad hoc basis, might take teachers longer when finding and choosing specific resources, and longer to vet them and decide how they would be used. Although this point will be picked up further in the discussion of responses to Survey 3, it should be noted that in 193 cases out of 264, teachers were likely to spend more time when accessing these non-Espresso resources.

4.6 Findings from Survey 3

Survey 3 asked teachers about time and management benefits associated with Espresso resources. Teachers were asked how often they used the resources. Their responses are shown in Table 11.

Table 11: How often teachers use Espresso resources

How often	Frequency of responses
Pretty much every day	26
Certainly once a week on average	52
Perhaps every couple of weeks	13
Certainly once a month	5
Less than once a month on average	2

These responses showed that most teachers used Espresso resources regularly, at least once a week on average. Using these frequencies, and a 28 day per month period (20 school days) an average rate could be readily calculated. On average, teachers were using Espresso resources on 7.76 days out of 20 (about once every three days). Note that this figure was less than that calculated for the sample in sub-section 4.5 (which gave an average of 9.25 days per month).

Teachers were also asked how often they used resources that were not Espresso. Their responses are shown in Table 12.

Table 12: How often teachers use non-Espresso resources

How often	Frequency of responses
Pretty much every day	64
Certainly once a week on average	24
Perhaps every couple of weeks	7
Certainly once a month	3
Less than once a month on average	1

Teachers reported that they used non-Espresso resources more often than they used Espresso resources. This pattern was similar to that reported by teachers in sub-section 4.5. Using the same form of calculation, on average, teachers were using non-Espresso resources on 14.08 days out of 20 (nearly three out of every four days). Note that this figure was slightly higher than that calculated for the sample in sub-section 4.5 (which gave an average of 13.33 days per month).

Teachers were asked about the nature of these non-Espresso resources. Their responses are shown in Table 13.

Table 13: Which other non-Espresso resources teachers use

Form	Frequency of responses
Other commercially purchased sets	54
Sets that are freely accessible	73
Ad hoc Internet-based resources	79

Although many teachers used these other sources, it was possible that sets that were freely accessible, including internet-based resources that were accessed on an ad hoc basis, might take teachers longer when finding and choosing specific resources, and longer to vet them and decide how they would be used. In 152 cases out of 206 (74% of all occasions), teachers were likely to spend more time when accessing these non-Espresso resources.

Teachers were asked how long it took them to find, and then vet and assess the use of resources. Their responses are shown in Table 14.

Table 14: How long it takes teachers to find, vet and assess how to use different resources

Function involved	Less than a minute	A few minutes	Between 5 and 10 minutes	More than 10 minutes	Average
Find an Espresso resource generally	26	55	17	1	2.96
Vet and assess the use of an Espresso resource generally	17	53	21	5	3.89
Find a digital resource on the Internet generally	2	39	38	17	6.65
Vet and assess the use of a resource you have found on the Internet generally	4	40	33	20	6.70

It was clear from these responses that teachers took longer to find general resources on the internet, and longer to vet and assess how to use them. From these data it was possible to calculate an average time for each of the four functions. These averages are shown in the right-hand column in Table 14. Overall, on average, teachers took:

- Some 6.85 minutes to find, vet and assess how to use an Espresso resource.
- Some 13.35 minutes to find, vet and assess how to use a non-Espresso internet-based resource (nearly twice as long).
- Some 6.5 minutes less to find, vet and assess how to use an Espresso resource.

Calculations above showed that teachers on average used Espresso resources on 7.76 to 9.25 days in any 4 week period (1.94 to 2.31 days in any week period). With 39 weeks in a school year, this meant that Espresso resources were used on average between 75.66 and 90.09 days). If a teacher used one resource each day, then this meant that between 491.79 and 585.59 minutes of time were saved for that teacher. This equates to 8.20 and 9.76 hours per teacher per year. In a two-form entry primary school with 16 teachers, the time saved per year would be between 131.20 and 156.16 hours. At an average hourly rate of £60 per teacher, the equivalent cost saving per year would be between £7,872 and £9,370. It should be noted that this figure was higher than that calculated in sub-section 3.10, which produced a cost saving of £6,240 per year (although it should be noted that this saving was calculated on the basis of a two-form primary school moving from using Espresso and general internet-based resources equally to using Espresso resources entirely).

It is worth noting here, however, that both calculations (in this section and that in Chapter 3) show that Espresso could benefit teachers and schools even more, if the reliance on internet-based resources could be reduced. From the survey responses, teachers reported that they used non-Espresso resources between 13.33 and 14.08 days in a 20 day period. On average, 74% of this usage was general internet-based, equating to between 9.86 and 10.41 days of use in a 20 day period, or 2.47 to 2.6 days in a week. Over a 39 week school year this would involve teachers in using general internet-based resource for between 96.33 and 101.40 days. If teachers used one resources each day, then the time that could be saved if they had access to resources on Espresso would be between 626.15 and 659.10 minutes per year (between 10.44 and 10.99 hours per year). In a two-form entry primary school with 16 teachers, the additional time saved per year would be between 167.04 and 175.84 hours. At an average hourly rate of £60 per teacher, the equivalent additional cost saving per year would then be between £10,022 and £10,550.

If both savings from existing uses of Espresso resources, and savings by using Espresso rather than internet-based resources could be gained, then this would total between £17,894 and £19,425 per year. If schools could move towards a single online resource base, then considerable cost savings through teacher time would be possible. Indeed, these cost savings through time would be likely to be higher, if cost savings associated with well-being were to be considered. Head teachers have reported that teacher stress, and non-accommodation of well-being, can incur costs that amount to twice the hourly

rate associated with teacher time. This being the case, resource access and lesson planning that can reduce stress clearly has the potential to offer cost benefit savings.

To take this point further, teachers were asked when they searched for digital resources. Their responses are shown in Table 15.

Table 15: When teachers search for digital resources

When	Frequency of responses
Almost always at home	31
Sometimes at home	17
About half and half	39
Almost always in school	12

Using these data, it was possible to calculate an average out-of-school access ratio. The calculated ratio was 1.60. Taking account of well-being and the ability of teachers to choose when to search for resources, the figures above could be multiplied by 1.60 therefore, in order to give an idea of cost saving equivalent values that account for teacher time and well-being factors. Taking both of these factors into consideration, therefore, an average two-form entry primary school could gain the equivalent of teacher time and well-being factor equivalent cost savings per year of between:

- £12,595 and £14,992 (if average use of Espresso resources, together with general internet-based resources is used for the calculation).
- £28,630 and £31,080 (if use of Espresso resources without using general internet-based resources is used for the calculation).

From responses in the survey, it was clear that many teachers were gaining not just in terms of time by using Espresso resources, but also in terms of the qualities that these resources brought to them. Teachers were asked about these qualities. Their responses are shown in Table 16.

Table 16: Qualities teachers associate with Espresso resources

Quality	Definitely	Not sure	No
Help to make your teaching interactive (children are more actively involved in their learning)	85	11	1
Up-to-date and help to keep the curriculum meaningful	84	13	3
Allow you to get value from investment in hardware (computers and interactive whiteboards)	83	14	1
Keep children focused and on-task (helping to manage their behaviour)	63	34	2

It was clear that most teachers felt that Espresso resources offered them these qualities. Although at a lower level, the fact that many felt that Espresso resources helped with behaviour management was also clearly a useful contribution within classrooms where behaviour could be challenging. For other qualities, teacher responses are shown in Table 17.

Table 17: Other qualities teachers associate with Espresso resources

Satisfaction with	Very satisfied	Satisfied	Fairly neutral	Not satisfied	Not at all satisfied
Presentational quality	64	33	3	0	0
Match with the ways you want to use them when you teach	31	57	9	1	0

It was clear that few of these teachers were not satisfied with the resources from Espresso. However, the responses did show that there was a need for either additional training to enable teachers to see how resource use could match their teaching approaches more, or a greater consideration of teaching approaches when resources were produced, or both. Certainly the need for more training in terms of

uses of resources was indicated by the responses from teachers about their levels of awareness of the resources (shown in Table 18).

Table 18: Awareness of the Espresso resources available

Question	Yes	For some resources	Not really	Not at all
Do you feel you know what areas the Espresso resources cover, so that you can plan to use them in advance, as well as when the need arises?	23	73	4	0

From these responses, 77% of the teachers indicated that they were not sufficiently aware of the resources to enable them to be either built into lesson plans in advance, or used as a need might arise. These responses suggest a much greater need for training in raising awareness of how resources match to subject topics.

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APPENDIX A: SCHEDULE USED TO GATHER EVIDENCE FROM SELECTED INITIAL SCHOOLS

Independent Evaluation of the Espresso online digital resources in primary schools

Information

We are sending you these questions to gather details about how you use Espresso resources in the school to support teaching and learning, and any benefits you find arises from their use. We expect these questions to take about 30 to 40 minutes to answer. We will value your responses, and it will help us a great deal if you could return your answers to us within about seven days. Please return your responses to the email used to send this schedule to you, or send to d.passey@lancaster.ac.uk.

Contact details

School: xxx

Key teacher: xxx

Contact details: xxx

Date: xxx

Please give us some basic background details

1. How many classes do you have in the school?

2. Are there any classes with mixed year groups? If so, please say which these are.

3. Are classes mixed ability?

4. Are any classes setted, banded or streamed for English, mathematics, or science? If so, please say which these are.

5. Is Espresso accessed in classrooms, or in special rooms such as an ICT suite or resource area or in both?

6. Do class teachers access Espresso through a laptop or through desktop machines?

7. Do class teachers access Espresso through interactive whiteboards in each room? If this access is not in each room, which classes have interactive whiteboards?

Please tell us something about your overall uses of Espresso

1. Which year groups or classes use Espresso?	

2. Are there some year groups or classes that use Espresso more than others? If so, which are the classes that use it most?	

3. For the classes that use Espresso most, how often are Espresso resources used (is it perhaps once or more a day, once or more a week, or about every two or three weeks on average)?	

4. Are certain types of resources used most regularly (perhaps news items, or resources to cover specific subject areas or specific topics)?	

5. Why are these resources used more regularly than others?	

6. Are Espresso resources used to support literacy or numeracy or both of these subject areas?	

7. Are Espresso resources used to support cross-curricular themes? If so, which themes?	

8. What sorts of benefits do teachers feel they (the teachers) gain when Espresso resources are used?	

9. What sorts of benefits do teachers feel are gained by pupils when Espresso resources are used?	

Please tell us something about how Espresso resources are used to support learning

Here are some ways that Espresso resources might be used to support specific aspects of learning	Do you use resources to support learning in this way?	If so, please give an example of a resource you use to do this.
1. To engage pupils visually		
2. To engage pupils through auditory means		
3. To engage pupils emotionally		
4. To allow collaborative work to be undertaken		
5. To generate ideas		
6. To allow children to understand things more easily		

Here are some ways that Espresso resources might be used to support specific aspects of learning	Do you use resources to support learning in this way?	If so, please give an example of a resource you use to do this.
7. To allow concepts to be developed		
8. To let children externalise their ideas		
9. To support memorisation		
10. To get wider ideas about topics or subject areas		
11. To allow previous learning to be built on easily		
12. To enhance a review or reflection of a pupil's learning or learning issues		
13. To enhance the development of learning strategies		
14. To allow children to amend their ideas or to try their ideas again in other ways		
15. To positively motivate pupils to learn		
16. To support social aspects of learning (such as discussion) or social needs (such as thinking about the care of others)		
17. To prepare children more for the future (such as school transfer, or travel)		

18. If you use resources to enhance understanding, how do you think this is aided by the resources?

19. If you use resources to enhance externalisation of ideas, how is the externalisation enabled (for example, is it supporting speaking, or through discussion)?

20. If resources are used to motivate pupils to learn, how, or in what ways do you think the resources do this?

21. Do teachers use Espresso resources at the end of a topic to gauge understanding of a concept, or at the beginning and then again at the end of a concept lesson or topic, or for revision ahead of formal assessment, or in other ways?

22. Do Espresso resources offer a real-life context to curriculum themes and concepts, and what are the consequences for learners?

23. Do Espresso resources allow access or benefits to the curriculum for learners with particular learning approaches or needs? If so, for which learners?

Please tell us how effective you think the resources are

1. Do the banks of Espresso resources help you (the teacher) in terms of time, in any ways?

2. Do you find that you can easily find an Espresso resource?

3. How long does it take you on average to find an Espresso resource?

4. How often do you not find a resource on Espresso?

5. If you used the Internet instead, from your experience, how long would it then take you to find a resource?

6. What is the rough balance between the number of Espresso resources and the number of non-Espresso digital resources that you use (half the number of Espresso resources, about the same number, or twice the number of Espresso resources, for example)?

7. Other than time, do you feel there are any other cost benefits to having Espresso resources available to you? If so, what are these?

8. Do your teachers plan the use of Espresso resources into their long term or medium term plans, or do they use resources in lessons as the needs arise?

9. When teachers come new to the school, do you find that they already know about Espresso and plan to use the resources in their lessons? If not, do you include this element in their early induction training?

Thank you for answering our questions. The details you have given us will be collated with similar evidence from about 40 other schools. From these details we will create a report, as well as an online questionnaire that a lot more schools will be able to complete. When we are reporting evidence you have given us, your anonymity is guaranteed.

We might want to get in touch with you again, perhaps to clarify any points that we are not sure about, or perhaps to ask a few more questions, or to follow up in other ways. Are you happy that we contact you again?

If so, please delete the relevant sentence to say that you are happy for us to contact you again:

- I am happy for you to contact me again.
- I would prefer not to be contacted in the near future.
- I would prefer not to be contacted further.

If you would like to contact us for any reason, please email me at: d.passey@lancaster.ac.uk.

With many thanks,

Don Passey
Senior Research Fellow
Department of Educational Research
Lancaster University

APPENDIX B: FIRST WEBPAGE GIVING DETAILS TO SCHOOLS ABOUT THE WIDER SURVEY

| Introduction |
| Survey Questions |

Espresso

What are your experiences with the Espresso online resources?

Espresso is a company that produces a wide range of online resources to support your teaching, and to support pupil learning. We (Lancaster University) have been asked to undertake an independent evaluation of the uses of the resources, and we want to give you the chance to respond to some key questions, so that we can understand more about your experiences and how you use the Espresso online resources.

This independent research, being conducted by Lancaster University across all schools that use Espresso resources, asks you to complete one or more simple surveys.

Answers to survey questions will be used only to support the needs of the research. Taking part is entirely voluntary; all survey responses will be reported anonymously, and no electronic links are set up when you respond.

If you are one of the first 20 schools to respond, you will be sent a £25 gift voucher.

For further details, click <Next>

If you have any queries, please contact:
d.passey@lancaster.ac.uk

| Introduction | Survey Questions |

APPENDIX C: SECOND WEBPAGE GIVING DETAILS TO SCHOOLS ABOUT THE WIDER SURVEY

Introduction

Survey Questions

Survey Questions

The surveys allow you to tell us about different aspects of your experiences and uses of the resources. There are three short surveys that you can answer, and you can click on the links here to go straight to the surveys:

• Survey 1: Subject and topic uses of Espresso resources (URL TBA)
• Survey 2: How Espresso resources match pedagogical needs (URL TBA)
• Survey 3: Time and management benefits (URL TBA)

You can select and answer one, two or all of the surveys.

If you give us the name of your school in the response, this will only be used to send you a gift voucher, should you be one of the first 20 to respond. Results from all schools will be aggregated, made fully anonymous by taking school names out, and used to produce a report that will initially be presented to Espresso. Overview results may be reported more widely as research findings in journals or articles.

To access each survey, just click on the relevant item in the list above.

| Introduction | Survey Questions |

APPENDIX D: SURVEY 1: SUBJECT AND TOPIC USES OF ESPRESSO RESOURCES

Which year group do you teach?

Why did you initially choose to use Espresso resources?	Recognised high quality resources Good presentational qualities Appealing to children of this age Match subject and topic needs Match how I want to use them in teaching Easy to find resources I want to use Up-to-date materials

How often do you use Espresso resources?	Pretty much every day	Certainly once a week on average	Perhaps every couple of weeks	Certainly once a month	Less than once a month on average
How often do you use digital resources that are not Espresso?	Pretty much every day	Certainly once a week on average	Perhaps every couple of weeks	Certainly once a month	Less than once a month on average

Which digital resources other than Espresso resources do you use?	Other commercially purchased sets Sets that are freely accessible Ad hoc Internet-based resources

Do you use Espresso resources for numeracy?	Often	Sometimes	Not often	No
Do you use Espresso resources for literacy?	Often	Sometimes	Not often	No
Do you use Espresso resources for geography?	Often	Sometimes	Not often	No
Do you use Espresso resources for history?	Often	Sometimes	Not often	No
Do you use Espresso resources for RE?	Often	Sometimes	Not often	No
Do you use Espresso resources for science?	Often	Sometimes	Not often	No
Do you use Espresso resources for citizenship or PSHE?	Often	Sometimes	Not often	No
Do you use Espresso resources for topic work?	Often	Sometimes	Not often	No

Do you think Espresso resources help pupils to remember certain things?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to recall certain things to mind?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to associate to things they have experienced?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to write?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to produce reports (written, perhaps with images)?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to discuss ideas or speak in class?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to present their ideas to others?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to draw or sketch, perhaps their ideas?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to complete tasks or activities?	Definitely	Some things	Maybe	Probably not	Certainly not
Do you think Espresso resources help pupils to engage practically or kinaesthetically?	Definitely	Some things	Maybe	Probably not	Certainly not

What are the things that other digital resources provide that Espresso resources do not? Please state them here.

APPENDIX E: SURVEY 3: TIME AND MANAGEMENT BENEFITS

Which year group do you teach?

How often do you use Espresso resources?	Pretty much every day	Certainly once a week on average	Perhaps every couple of weeks	Certainly once a month	Less than once a month on average
How often do you use digital resources that are not Espresso?	Pretty much every day	Certainly once a week on average	Perhaps every couple of weeks	Certainly once a month	Less than once a month on average

Which digital resources other than Espresso resources do you use?	Other commercially purchased sets
	Sets that are freely accessible
	Ad hoc Internet-based resources

Do you find that Espresso resources are up-to-date and help to keep the curriculum meaningful?	Definitely	Not sure	No
Do you find that Espresso resources keep children focused and on-task (helping to manage their behaviour)?	Definitely	Not sure	No
Do you find that Espresso resources allow you to get value from investment in hardware (computers and interactive whiteboards)?	Definitely	Not sure	No
Do you find that Espresso resources help to make your teaching interactive (children are more actively involved in their learning)?	Definitely	Not sure	No

How long does it take you to find an Espresso resource generally?	Less than a minute	A few minutes	Between 5 and 10 minutes	More than 10 minutes
How long does it take you to vet and assess the use of an Espresso resource generally?	Less than a minute	A few minutes	Between 5 and 10 minutes	More than 10 minutes
How long does it take you to find a digital resource on the Internet generally?	Less than a minute	A few minutes	Between 5 and 10 minutes	More than 10 minutes
How long does it take you to vet and assess the use of a resource you have found on the Internet generally?	Less than a minute	A few minutes	Between 5 and 10 minutes	More than 10 minutes

Do you tend to search for digital resources at home rather than in school?	Almost always at home	Sometimes at home	About half and half	Almost always in school

Are you satisfied generally with the presentational quality of Espresso resources?	Very satisfied	Satisfied	Fairly neutral	Not satisfied	Not at all satisfied
Are you satisfied generally that Espresso resources match the ways you want to use them when you teach?	Very satisfied	Satisfied	Fairly neutral	Not satisfied	Not at all satisfied

Do you feel you know what areas the Espresso resources cover, so that you can plan to use them in advance, as well as when the need arises?	Yes	For some resources	Not really	Not at all

What are the things that other digital resources provide that Espresso resources do not? Please state them here.

About the author

Dr Don Passey is a Senior Research Fellow in the Department of Educational Research at Lancaster University. He has wide experience with developing and using evaluation and research methods to look at technological innovation, and has studied and reported on outcomes of implementation and uses of leading edge technologies and their impacts on learning for over 20 years. His work has focused particularly in areas exploring implementation, management and uses of leading edge technologies for primary and secondary age pupils and teachers, in informal as well as formal learning settings, but he has undertaken studies in further education settings also. Increasingly, his focus has been on how technologies support groups of young people who find it hard to learn. His research is based strongly in grounded theory approaches, adopting integration and sequencing of appropriate ranges of qualitative and quantitative (covering wide ranges of size sampling) methods, and he has developed new analytical techniques to explore impacts of technologies on learning, which include the use of learning frameworks and gap analysis.

He has led and undertaken more than 50 research and evaluation studies over the past 10 years, the vast majority independently commissioned to support aspects of policy or practice. He has recently completed a study for Wolverhampton Local Authority (LA) on the implementation of the LP+ learning platform, is undertaking a range of studies on home access and uses of technologies to support young people's learning, has undertaken an evaluation study for the BBC looking at outcomes of the BBC News School Report project, and a number of studies for Becta looking at potential uses of technologies with young people who are not in employment, education or training (NEET). He has over the past few years undertaken a series of evaluation studies on how schools in Aston Pride have supported the development of community and home access to ICT, as well as a review of the ICT development practices and outcomes arising in Wolverhampton LA. He was commissioned by the BBC to look at learning uses and outcomes of the BBC jam resources at an early stage of their development. He previously completed studies on the role and learning benefits of IT Academies for the DfES, the use of broadcast video clips in schools and uses of multimedia support for at risk young people for the BBC, the uses of specific online learning resources for regional broadband consortia (RBCs), the ways in which ICT is linked to pupil motivation for the DfES, the role of ICT in supporting learning practices for disadvantaged communities for a NDfC project, the outcomes of uses of interactive whiteboards, and the development of e-learning practices across RBCs and local authorities (LAs). Earlier studies reported on the outcomes and implementation of Pathfinder LEAs for the DfES, the development of Year 7 online course materials for mathematics for RM, the use of a number of integrated learning systems in schools, he led a team that investigated the outcomes of laptop use in schools and homes as part of the Microsoft UK Supported Anytime, Anywhere Learning Project, and led a study for the Qualifications and Curriculum Authority (QCA) looking at the implications of uses of ICT for coursework in examination assessment.

He has worked with EU and government agencies, commercial and non-commercial groups, educational institutions and schools, in undertaking research to inform both policy and practice. He was a consultant to a previous department for education on a number of projects, which included work on the development of innovative approaches to data management systems in schools and LAs. He has worked with commercial companies in the UK, Switzerland and Germany, with state pedagogical research institutions in France, Spain and Germany, with educational groups in Hong Kong, Bermuda, and Peru, with LAs across England and Scotland, with RBCs, and with individual schools. He established, in collaboration with SSAT, a Masters in Research course in Innovation in School Practice for teacher practitioners, focusing on researching the uses of data and technologies within schools and in homes.

He is vice-chair of the International Federation for Information Processing Working Group on Information Technology in Educational Management, a member of an international Working Group on Elementary Education and ICT, and a member of the BCS Schools Expert Panel. He has written widely on aspects of leading edge ICT uses in primary and secondary education.

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