

SECTION TWO

RESEARCH METHODS

2.0 Introduction

The research study involved 69 museums in all; 47 museums in the three Phase 1 Hubs and 22 museums in the Phase 2 Hubs, more than was planned. The research in which these museums took part involved a full range of research methods which produced different kinds of evidence that could be linked to produce a broad and deep picture of the learning outcomes of pupils visiting museums.

Methods included a large-scale survey of 1,643 teachers (Form A) and 26,791 pupils (Form B), collection of pupil contact numbers (Form C), a survey of museum educators' views of the impact of the Renaissance programme (Form D), three focus groups and three case-studies involving a total of 31 teachers and 29 pupils and two seminars with museum education staff.

After review, the research methods from the first study in 2003 were used, with one or two modifications and additions, including an increased emphasis on qualitative data. Analysis and interpretation involved an external data analysis company (LISU- Library Information and Statistics Unit, Loughborough University), and the research team.

Most of the museums involved in data collection worked hard to give out and collect Forms A and B, which were combined in Evaluation Packs, and were given out to teachers at the end of their visit to the museum. However, some museums appeared not to fully grasp the purpose or process of the research, and some had difficulty with distribution and return of Evaluation Packs. Forms C and D were completed without too much difficulty, although most were returned late. Case-studies were difficult for the museums to arrange, but have proved vital to the research. The two seminars organised for the research have also proved useful.

2.1 Collecting and generating evidence for the second study

2.1.1 The museums in the study

The research study involved 69 museums in all; 47 museums in the three Phase 1 Hubs and 22 museums in the Phase 2 Hubs. As nomenclature is confusing, this study used specific terminology. Museums were identified (where relevant) as within and part of a 'museum service'; specific individual museums were represented as 'museum sites'. Some museum services (like the Horniman Museum, for example) consisted of only one museum, whereas some local authority museum services (like Tyne and Wear Museums) consisted of a large group of museums sites all managed by the same authority.

The second study aimed to include the same 36 museums in the Phase1 Hubs as in the first study in 2003. In the event, although all the 14 museum services were involved as before, a larger number of museum sites, 47 in all, were included in 2005. Each of the museum services that made up each of the three Phase 1 Hubs was included (see Table 2.1.1a).

Table 2.1.1a: The 14 museum services and the 47 museum sites in the three Phase 1 Hubs

Hub	List of museum services and their sites
SW	Bristol Museums, Galleries and Archives
	Blaise Castle House Museum
	Bristol Industrial Museum
	City Museum and Art Gallery
	Georgian House
	Kings Weston Roman Villa
	Red Lodge
SW	Plymouth City Museum and Art Gallery
	City Museum and Art Gallery
	Elizabethan House
	Merchant's House
	Plymouth Dome
	Smeaton's Tower
SW	Royal Cornwall Museum, Truro
	Royal Cornwall Museum
	Exeter City Museums and Art Gallery
	Royal Albert Memorial Museum
	Connections Discovery Centre
	St Nicholas Priory
SW	Russell-Cotes Art Gallery and Museum, Bournemouth
	Russell-Cotes Art Gallery
NE	Beamish, the North of England Open Air Museum
	Beamish
NE	The Bowes Museum, County Durham
	The Bowes Museum
NE	Hartlepool Arts and Museum Service

Hub	List of museum services and their sites
	Museum of Hartlepool
	Hartlepool Art Gallery
NE	Tyne and Wear Museums
	Arbeia Roman Fort and Museum
	Discovery Museum, Newcastle-upon-Tyne
	Hancock Museum, Newcastle-upon-Tyne
	Laing Art Gallery
	Monkwearmouth Station Museum
	Segedunum Roman Fort, Baths and Museum, Wallsend
	Shipley Art Gallery
	South Shields Museum and Art Gallery
	Stephenson Railway Museum
	Sunderland Museum and Winter Gardens
	Washington F Pit, Sunderland
WM	Birmingham Museums and Art Gallery
	Aston Hall
	Blakesley Hall
	Museum of the Jewellery Quarter
	Sarehole Mill
	Soho House
WM	Coventry Arts and Heritage
	Herbert Art Gallery and Museum
	Lunt Roman Fort, Bainton
	Priory Visitor Centre
WM	Ironbridge Gorge Museums Trust¹
	Blists Hill Victorian Town
	Coalport China Museum
	Darby Houses
	Enginuity, Coalbrookdale
	Iron Bridge Tollhouse
	Jackfield Tile Museum
	Museum of Iron and Darby Furnace
	Museum of the Gorge
	Quaker Burial Ground
WM	Potteries Museums and Art Gallery
	Etruria Industrial Museum
	Ford Green Hall
	Gladstone Working Pottery Museum
	Potteries Museum and Art Gallery
WM	Wolverhampton Arts and Museums
	Bantock House and Park
	Bilston Craft Gallery and Museum
	Wolverhampton Art Gallery

¹ Ironbridge Gorge Museum is counted as one service and one site to be comparable to 2003, as in the first study the pupil numbers were presented in aggregate, and because of this, the individual sites were not counted individually in that study.

It was intended that only 18 of the museums in the six Phase 2 Hubs should be included in the study. This second study was regarded by MLA as an opportunity to pilot the research methods and to introduce the museums to evaluation research. At the beginning of the first study in 2003 there was considerable anxiety in the museums involved, which had been dissipated by the end of the research period, and it was hoped that a pilot study in a small number of museums would introduce evaluation gently to museums in the Phase 2 Hubs.

In the event, 22 museums from 15 museum services were included in the second study in 2005 (See Table 2.1.1b). These 22 museums represented approximately 17% of the total number of museums (129) in the six Phase 2 Hubs. The museums which participated in the research were selected because of high levels of educational use. This group of museums therefore included many with long-established, successful and highly active educational services. The choice of which museums to include in the research has had a strong impact on the findings where very little distinction could be found between the museums in the Phase 1 Hubs and the museums in the Phase 2 Hubs across many of the dimensions of the research.

Table 2.1.1b: The 22 museum sites in 15 museum services from the Phase 2 Hubs

Hub	List of museum services and their sites
EM	Leicester City Museums Service
	Jewry Wall
	New Walk
EM	Lincolnshire Museums Service
	The Collection, Lincoln
EE	Norfolk Museums and Archaeology Service
	Roots of Norfolk, Gressenhall
EE	Colchester Museums
	Colchester Castle Museum
	Hollytrees Museum
EE	Luton Museums Service
	Wardown Park Museum
	Stockwood Park Museum
LO	Horniman Museum
	Horniman Museum
LO	Museum of London
	London Wall
	Museum in Docklands
NW	Manchester City Galleries
	Manchester Art Gallery
NW	Tullie House Museum and Art Gallery, Carlisle
	Tullie House Museum and Art Gallery
NW	Bolton Museums, Art Gallery and Aquarium
	Bolton Museum

SE	Hampshire Museums and Archives Service
	Milestones
SE	Brighton & Hove Museums
	Museum and Art Gallery
YO	Leeds Heritage Services
	Temple Newsam House
	City Art Gallery
	Lotherton Hall
	Armley Mills ²
YO	Hull Museums and Art Gallery
	Ferens Art Gallery
YO	York Museums Trust
	Castle Museum

2.1.2 Using multiple methods

The research study consists of both fixed and flexible research processes.³ With 'fixed processes', the research plan and the research tools are not subject to change during the research process, whereas with 'flexible processes' the research tools and plans need to be used in a fluid way and may change as the research moves on. Where research is being carried out that requires people to reflect on their views and experience, a fixed research tool such as a questionnaire is not appropriate and more useful results can be gained through 'conversations with a purpose'.⁴ These are loosely structured interviews which respond to the situation in which they are held, but which (in our research) have very clear objectives in relation to the information needed by the researcher.

The fixed processes in this research are:

- a large-scale survey of 1,643 teachers and 26,791 pupils which examines their views about the outcomes of learning immediately following a museum visit (Evaluation Packs containing Forms A and B)
- a questionnaire to museum education staff in the 29 museum services in the study that explores their views of the significance of Renaissance funding (Form D)
- a second short questionnaire to museum education staff asking for details of numbers of school-aged children visiting in September and October 2002-05 (Form C).

The flexible element of the research plan involves:

- three focus groups of teachers
- three school case-studies
- two seminars with the museum research participants.

² Packs were sent to this site but were used in outreach sessions, so no actual visits were made here by schools during the research period.

³ Robson, C., 2002, *Real world research*, Blackwell Publishing, 4.

⁴ Mason, J., 1996, *Qualitative researching*, Sage, 38.

The fixed elements of the research were managed through a series of forms (Forms A-E). Copies of all forms are included in Appendix 9. The flexible elements did not have specific research tools, but their objectives were very carefully identified, discussed and recorded prior to the visit and/or interview/focus group.

The various research methods are used in a complimentary way, to enhance understanding of the research puzzle.⁵ Thus the large scale survey of the views of teachers and pupils provides an overview of their attitudes about the extent to which each of the five GLOs is achieved following a museum visit, while a more in-depth understanding and examples of the occurrence and character of these outcomes has been gained through the school case-studies. Discussions in focus groups with teachers facilitated a deeper understanding of, and in some cases a challenge to, some of the results of the present (2005) and the first study (2003), from the perspective of the teachers. The flexible elements of the research (the focus groups and case-studies) produced qualitative data which allowed detailed analysis of the contexts and character of the learning in museums which was mapped out through the large-scale quantitative study.

While most of the research processes explored the impact of Renaissance funding on the learning outcomes of pupils, one element (Form D, new in this second study), explored the perspectives of the museum education staff on the impact of Renaissance on their professional practice.

The quantitative elements of the study have allowed for a statistical description and analysis of the data collected from teachers, pupils and museum staff. It has been possible to draw comparisons between this study in 2005 and the earlier one in 2003. Differences between museums in the Phase 1 and Phase 2 Hub museums are also explored by using the data from the 2005 study only.

There are slight differences between the two studies and because of this a number of issues are raised that it is important to note. The composition and size of samples are different in the two studies; in 2005 1,643 Teachers' Questionnaires were received compared with 936 in 2003. In 2003 all Phase 1 museums were included in the research creating a 100% sample; in 2005 all Phase 1 museums were included again along with 22 Phase 2 Hub museum sites (representing 17% of 129 museums). Museums from the Phase 2 Hubs were selected according to highest levels of educational use, and thus were similar in many respects to the Phase 1 museums making comparisons between the two sets of results possible. However, generalising the results of both the 2003 and 2005 studies to other Phase 2 museums should be undertaken with caution as museums selected for the sample are likely to have a well established educational service that may not be in place in other museum services.

The difference in sample size also means that the sampling errors are not the same for both studies. The sampling error is calculated at 2.5% with a 95% confidence interval. This means that any percentages quoted in respect of the 2005 data can be expected to vary by 2.5% either way. The confidence

⁵ Robson, C., 2002.

interval is used to qualify the sampling error, and at 95% it can be seen to have a 5% chance of being inaccurate. This is the most conservative estimate of the sampling error as it is based on the number of teachers' responses on a single visit to the museum (the concept of single and multiple visits is explored further in Section 3.2). In 2003 originally no sampling error was calculated, however when comparing 2005 data the 2003 study can be assumed to have a sampling error of 3.4% (based on the number of single visits). This is larger than 2005 because of the smaller sample size.

Because of these differences in sample sizes, where it has seemed important, variation between the findings of the two studies was assessed where possible using a chi square test. This test compares the proportions of two different samples to determine whether there is a significant difference between the two. As actual portions are being compared chi square tests work with the raw numbers rather than percentages. Thus, the chi square test was employed where there appeared to be a difference between the 2003 and 2005 results to determine if this could be considered statistically significant. Differences were accepted as significant if the result of the chi square test was found to show a significance level of 0.05 or below; this means that there is a 5% possibility that differences regarded as significant were in fact due to random variation. The chi square test was also used to determine whether relationships existed between different variables within the 2005 study; for example whether teachers' work, when linked to the curriculum had any relation with how importantly they rated various learning outcomes. Again the relationship was accepted as significant if the chi square test showed a level of significance of 0.05 or below. Throughout the report when a difference is referred to as 'significant' it can be assumed that this refers to a statistically significant difference at 0.05 or below. It is important to remember that while differences are considered in terms of their statistical significance this does not mean that other differences should be discounted because they do not show statistical significance. Chi square tests cannot always detect a real difference if the sample size is not large enough; in order to address this where percentages appear to show an important difference this is reported even when it is not statistically significant. This ensures any changes that could be regarded as notable findings are not overlooked.

The diverse methods used in this research have been carefully chosen because they were judged to be appropriate to generate the kind of information that was needed for this research.⁶ The five GLOs were used to structure the research tools and to shape the analysis and interpretation of the data. The GLOs are based on an interpretivist ontology; social reality is understood as constructed, subjective and therefore multiple.⁷ The learning theory underpinning the GLOs is constructivist and socio-cultural; individuals construct their own meanings of their experience, but within social and community contexts.⁸

⁶ Denscombe, M., 2002, *Ground rules for good research: a 10-point guide for social researchers*, Open University Press, 24.

⁷ Denscombe, M., 2002.

⁸ Hooper-Greenhill, E., 2000, *Museums and the interpretation of visual culture*,

2.1.3 Reviewing and modifying the methods from the first study

It was intended that this second study should repeat and extend the first study which resulted in the report *What did you learn at the museum today?* At the start of the second study, the first study was thoroughly reviewed by the research team, and the linked study carried out for DCMS/DfES, which resulted in the report *Inspiration, Identity, Learning: the value of museums*, was also reviewed.⁹ A list of themes for possible further exploration during the present (second) study was drawn up and used for the basis of discussion with MLA. It was proposed to MLA as part of the commissioning and designing of the research to extend the qualitative elements of the research design because this would provide more depth and detail about both children's learning and also about teachers' engagement with museums. This approach to the research was also needed to probe the character of the GLOs and to explore their inter-relationships within learning processes. Using the opportunity of gathering qualitative data in this way enabled a link between the quantitative findings of the first study in 2003, and the second study in 2005. This went some way to alleviate the problems of the very rapid timescale that characterised both research studies, and enabled the findings of the first study to shape in part the data generation. However, new (sometimes puzzling) findings which have emerged during the second study were not able to be explored through discussions with teachers.

The research tools used in the first study were reviewed, modified and supplemented where necessary. As one of the aims of the study was to produce a research model that could be replicated as required, and as the methods and tools used in the first study had on the whole worked very well, modification was kept to a minimum.

The table below outlines where modifications to research methods took place for the second study in 2005. Comparison of the tools used in both the 2003 and the 2005 studies, which can be located in the relevant report Appendices, can be used for further information.

Form A included two new questions in 2005. Because *Enjoyment, Inspiration, Creativity* had proved one of the most important learning outcomes for teachers in 2003, more information about this was sought through Q.12: 'To what extent do you think your pupils will have enjoyed or been inspired by their museum visit?' MLA wanted more information on the general use of museums and a second new question was Q.25 which concerned use over the past two years of museums in relation to visiting (as a teacher), using on-line resources and borrowing an object or handling box.

Routledge; Hooper-Greenhill, E., 2004, 'Measuring learning outcomes in museums, archives and libraries: the Learning Impact Research Project (LIRP)', *International Journal of Heritage Studies*, 10, 2, 151-174.

⁹ Hooper-Greenhill, E., Dodd, J., Phillips, M., O'Riain, H., Jones, C., and Woodward, J., 2004, *Inspiration, Identity, Learning: The Value of Museums, The evaluation of the impact of DCMS/DfES Strategic Commissioning 2003-2004: National/Regional Museum Education Partnerships*, DCMS and RCMG, University of Leicester
<http://www.le.ac.uk/museumstudies/rcmg/rcmg.htm>

A small modification was made to Form A, Q.12-19 which asked teachers about how they rated the importance of each of the GLOs. This was the inclusion of a 'don't know' column, to allow teachers to express a lack of conviction if they wanted. This is better practice in research, but it has meant that a comparison of the results between 2003 and 2005 must be made on the basis of taking this modification into account. In the event, however, this new category has not had much impact, but a discussion is included here of the impact of related categories, and the effect of a slightly different form of statistical analysis because this has had an effect on comparisons between the two studies. In the analysis of the numerical data in 2003, a category in the statistical tables- 'not stated'- referred to missing values, where teachers had not ticked any box at all. In 2005, teachers could either tick 'don't know', or leave the boxes blank. In the analysis of the statistical data in 2005 (carried out by a different company from 2003) where the box was blank this was included in a 'missing' category. In relation to 'missing' categories, there are some large values. For example, 15% of teachers in 2005 did not tick a box in relation to Action, Behaviour, Progression, whereas the value of the 'don't know' category is tiny at less than 1%. In comparison, in 2003, 'not stated' includes 4% of responses. More teachers in 2005 are unwilling to rate Action, Behaviour, Progression than in 2003, but this has shown up in the 'missing' category, rather than the new 'don't know' category. This large 'missing' category has the effect of depressing the other categories in relation to this GLO.

Table 2.1.3a: Outline of changes and modifications to research methods used in the first study

Research tool	Status
Form A: Evaluation of school visits to museums in September and October 2005	Teachers' Questionnaire (Addition of new question on Enjoyment, Inspiration, Creativity; addition of new question on teachers' general use of museums; 'don't know' category added to Q. 12-19; more open-ended question about teachers' themes)
Form B: My Museum Visit	KS2 and below Pupils' Questionnaire (Minor modifications only)
Form B: My Museum Visit	KS3 and above Pupils' Questionnaire (A space for open-ended comments was inserted)
Form C: Numerical data collection of pupil usage September/October 2002, 2003, 2004, 2005	Museum education staff (Modified to reflect MLA categories more closely)
Form D: Impact of Renaissance funding on museums and education	Museum education staff (A new form. The previous Form D collected information on holiday activities which was not required for the second study)
Form E: Museum contact details (and estimated numbers of KS2 and KS3 pupils)	Museum education staff (A new form to facilitate communication)
Briefing notes for museum staff	(As before)
Briefing notes for teachers	(As before)
Focus groups x 3	(Smaller groups were used this time to enable more in-depth conversations)
School case-studies x 3	(A new element in the research to generate additional depth material)

2.1.4 The relationships between the research objectives and the research methods

The various research methods were selected and specific tools designed to produce evidence of the outcomes of museum-based learning. Table 2.1.4a below shows which methods and tools related to which objectives.

Table 2.1.4a: The relationship between the research objectives and the research methods

Objectives	Methods	Tools
To provide evidence of impact on pupils' learning of continued funding of museum education programmes	Questionnaire for: Teachers Pupils KS2 Pupils KS3/4 Case-studies and focus groups	Form A Form B - KS2 and below Form B – KS3 and above
To explore patterns of use (and the reasons behind them) of museums, issues of museum/school partnerships, relationships between GLOs, attainment, entitlement	Analysis of school post-codes School case-studies x 3, to include observation of museum visits, interviews and focus groups with teachers and pupils, classroom observations (as possible)	Form A Observation, interview and focus group protocols as relevant
To probe patterns of use, teacher support and specific issues arising from earlier studies	Focus groups with teachers x 3	Interview guides
To assess the impact of Renaissance funding on museum education staffing and provision	Questionnaire to all museums participating in study	Form D (new form) Interview protocol
To ascertain numbers of pupils (and teachers) using museums in September and October 2005	Questionnaire to museum education staff to collect numerical data	Form C
To ensure that museum staff and teachers are fully informed about the research process	Briefing notes and seminars with museum staff	Briefing notes

2.1.5 A range of types of evidence

The research processes detailed above resulted in the generation of the following types of evidence:

- Numerical data concerning the use of museums by pupils and teachers during September and October 2005 (Forms A and C)
- Statistical and qualitative data about teachers' use of museums and their perceptions of their pupils' learning in 47 Phase 1 and 22 Phase 2 museums (Form A, case-studies and focus groups)
- Statistical and qualitative data on pupils' perceptions of their own learning in 47 Phase 1 and 22 Phase 2 museums (Form B, case-studies and focus groups)
- Contextual material about schools
- An analysis of free school meal data and the post-code data in relation to deprivation indices¹⁰
- Descriptions and analysis of the GLOs and their inter-relationships. (Form A, school case-studies and teacher focus groups)
- Pupils' writing and drawing about their museum experiences (Form B and school case-studies)
- Some further qualitative detail of specific issues concerned with teachers' use of museums (teacher interviews as part of school case-studies and teacher focus groups)
- Specific information about the impact of Renaissance funding on staffing and educational provision in the Phase 1 and Phase 2 Hubs (Form D)
- Photographs of pupils in the schools and museums (taken during observations and visits; supplied by teachers, museums and commissioned for this study).

2.1.6 Analysis and interpretation

The analysis and interpretation of the data has been achieved in a number of ways. The Evaluation Packs (Forms A and B) were returned to RCMG and carefully checked before being sent to LISU at Loughborough University, where the data was entered into a statistical database for analysis using Excel and SPSS. The resulting charts were returned to RCMG. A pilot analysis was carried

¹⁰ This data and the earlier post-code data will also be the subject of an extended 3-year analysis through an ESRC-funded CASE doctoral studentship in partnership with DCMS.

out in late October with the first 400 returns to check that the system was operating as needed, and one or two small amendments were made at this point. We are grateful to LISU for their professional and helpful approach and for keeping to (and in fact bettering) a very tight timetable.¹¹ The statistical data was fully discussed and reviewed by a sub-group of the research team. Post-codes from the school addresses were checked, completed and analysed in relation to indices of multiple deprivation (IMD 2004). Careful checks were made to ensure that the Teachers' Questionnaires (Forms A) did not contain duplicate information such that double counting could occur. For example, if two teachers accompanying the same class both completed one Form A and gave pupil numbers, if both were counted, this would result in the same pupils being counted twice.

Throughout the report data is presented in tables and charts to aid understanding, and these are accompanied by a base rate. Figures and charts for Form A have a slight difference in base numbers due to some teachers completing only the front section of a questionnaire. The 'all teachers' figure 1643 refers to questionnaires part-completed in this way, while the 1632 figure refers to questionnaires which contained answers from Q.5 onwards. Percentages presented in the report are rounded-up and so do not always add up to 100%.

Discussions at the focus groups and case-study visits were taped where possible, and recorded by hand, and other field notes were made. The transcriptions of the tape-recordings were carried out by Kath's Keying Services, Derby, and again we are grateful for the effective management of this. A second sub-group of the research team worked on the analysis and interpretation of the qualitative data, using contextual material as available. Team and sub-group discussions enabled the structuring of the final report, identified the links between the qualitative and quantitative data, and clarified complex issues. Further details of analysis and interpretation will be included in the discussion of the evidence in the following sections of the report where it is relevant.

¹¹ For the first study in 2003, a different company, Infocorp was used. It was judged more convenient to use a local group in 2005, as this would facilitate any necessary meetings. In addition, LISU understands the research context, which was judged to be helpful.

2.2 Research processes

2.2.1 Managing the timetable

The research proceeded rapidly. It was essential to establish and stick to dates for sending out forms and receiving them back. The table below illustrates this.

Table 2.2.1a: Dates of sending out and returning tools

Form	Sent out	Returned by
A	26 August	4 November
B	26 August	4 November
C	5 August	4 November
D	5 August	16 September
E	13 July	20 July

This table and the one below were produced to help communications with the 69 museums which were involved in the research. It was presented to museum participants in the first museum seminar in July, and then emailed to those who were unable to attend on that occasion.

Table 2.2.1b: Research timetable (as presented to museums at the start of the research period)

Action	Research event	Date
RCMG	Plan research	June
RCMG RCMG Museums RCMG	Brief museums Form E – send out Send back Form E Set up communications	13 July 14 July 20 July By mid-July
RCMG RCMG RCMG Museums	Send out Form C and D Evaluation Packs designed and printed Set up analysis Receive Evaluation Packs	4 August August August 26 August
Museums RCMG with help of museums Museums	Send back Evaluation Packs with forms As and Bs Case-studies and focus groups Send back Form D	As completed by schools Sept- Oct. September- November 16 September
Museums Museums RCMG RCMG RCMG	Last Evaluation Packs returned Send back Form C Data to LISU for SPSS analysis Stats. returned from LISU Analysis and interpretation <ul style="list-style-type: none"> • Statistics • Post-code analysis • Focus group and case-studies 	4 November 4 November 8 November 15 November November - December
RCMG/ Museums RCMG	Seminar to discuss emerging findings Final report to MLA	5 December 15 December

2.2.2 The forms and the museums

The table below shows the museums in the study, indicating which museums have returned Forms A, C, and D. The discussion below focuses on issues to do with the distribution and return of each of these forms, and then moves on to discuss the qualitative research methods.

Table 2.2.2a: Phase 1 museums and the return of Forms A, C, and D

Hub	Phase 1 Museums	Form A	Form C	Form D
SW	Bristol Museums, Galleries and Archives		✓	✓
	Blaise Castle House Museum	✓		
	Bristol Industrial Museum			
	City Museum and Art Gallery	✓		
	Georgian House			
	Kings Weston Roman Villa			
	Red Lodge	✓		
SW	Plymouth City Museum and Art Gallery		✓	✓
	City Museum and Art Gallery	✓		
	Elizabethan House	✓		
	Merchant's House			
	Plymouth Dome			
	Smeaton's Tower			
SW	Royal Cornwall Museum, Truro		✓	✓
	Royal Cornwall Museum	✓		
	Exeter City Museums and Art Gallery		✓	✓
	Royal Albert Memorial Museum	✓		
	Connections Discovery Centre			
	St Nicholas Priory			
SW	Russell-Cotes Art Gallery and Museum, Bournemouth		✓	✓
	Russell-Cotes Art Gallery	✓		
NE	Beamish, the North of England Open Air Museum		✓	✓
	Beamish	✓		
NE	The Bowes Museum, County Durham		✓	✓
	The Bowes Museum	✓		
NE	Hartlepool Arts, Museums and Events Service		✓	✓
	Museum of Hartlepool	✓		
	Hartlepool Art Gallery			
NE	Tyne and Wear Museums		✓	✓
	Arbeia Roman Fort and Museum	✓		
	Discovery Museum, Newcastle-upon-Tyne	✓		
	Hancock Museum, Newcastle-upon-Tyne	✓		
	Laing Art Gallery	✓		
	Monkwearmouth Station Museum			
	Segedunum Roman Fort, Baths and Museum, Wallsend	✓		
	Shiplay Art Gallery	✓		
	South Shields Museum and Art Gallery	✓		
	Stephenson Railway Museum	✓		
	Sunderland Museum and Winter Gardens	✓		
	Washington F Pit, Sunderland	✓		
WM	Birmingham Museums and Art Gallery		✓	✓
	Aston Hall	✓		
	Blakesley Hall	✓		
	Museum of the Jewellery Quarter	✓		

Hub	Phase 1 Museums	Form A	Form C	Form D
	Sarehole Mill	✓		
	Soho House	✓		
WM	Coventry Arts and Heritage		✓	✓
	Herbert Art Gallery and Museum	✓		
	Lunt Roman Fort, Baignton	✓		
	Priory Visitor Centre	✓		
WM	Ironbridge Gorge Museums Trust	✓	✓	✓
	Blists Hill Victorian Town	✓		
	Coalport China Museum	✓		
	Darby Houses			
	Enginuity, Coalbrookdale	✓		
	Iron Bridge Tollhouse			
	Jackfield Tile Museum	✓		
	Museum of Iron and Darby Furnace	✓		
	Museum of the Gorge			
	Quaker Burial Ground			
WM	Potteries Museums and Art Gallery		✓	✓
	Etruria Industrial Museum	✓		
	Ford Green Hall	✓		
	Gladstone Working Pottery Museum	✓		
	Potteries Museum and Art Gallery	✓		
WM	Wolverhampton Arts and Museums		✓	✓
	Bantock House and Park			
	Bilston Craft Gallery and Museum	✓		
	Wolverhampton Art Gallery	✓		

Table 2.2.2b: Phase 2 museums and the return of Forms A, C, and D

Hub	Phase 2 Museums	Form A	Form C	Form D
EM	Leicester City Museums Service		✓	✓
	Jewry Wall	✓		
	New Walk	✓		
	The Guildhall	✓		
EM	Lincolnshire Museums Service		✓	✓
	The Collection, Lincoln	✓		
EE	Norfolk Museums and Archaeology Service		✓	✓
	Roots of Norfolk, Gressenhall	✓		
EE	Colchester Museums		✓	✓
	Colchester Castle Museum	✓		
	Hollytrees Museum	✓		
EE	Luton Museums Service		✓	✓
	Wardown Park Museum	✓		
	Stockwood Park Museum	✓		

LO	Horniman Museum		✓ ¹²	✓
	Horniman Museum	✓		
LO	Museum of London		✓	✓
	London Wall	✓		
	Museum in Docklands	✓		
NW	Manchester City Galleries		✓	✓
	Manchester Art Gallery	✓		
NW	Tullie House Museum and Art Gallery, Carlisle		✓	✓
	Tullie House Museum and Art Gallery	✓		
NW	Bolton Museums, Art Gallery and Aquarium		13	✓
	Bolton Museum	✓		
SE	Hampshire Museums and Archives Service		✓	✓
	Milestones	✓		
SE	Brighton & Hove Museums		14	✓
	Museum and Art Gallery	✓		
	Preston Park Manor	✓		
	Booth Museum of Natural History	✓		
YO	Leeds Heritage Services		✓	✓
	Temple Newsam House	✓		
	City Art Gallery	✓		
	Lotherton Hall	✓ ¹⁵		
YO	Hull Museums and Art Gallery		✓	✓
	Ferens Art Gallery	✓		
YO	York Museums Trust		✓	✓
	Castle Museum	✓		

2.2.3 Forms A and B: the Teachers' and the Pupils' Questionnaires – the Evaluation Packs

Form A was the questionnaire for teachers. The design of Form A was slightly modified from the first study to make it easier to read at speed. The questions were grouped into sections for clarity. Details of school and class were simplified slightly. Two new questions were added; Q.12 asked about Enjoyment, Creativity, Inspiration as this had proved to be one of the most important reasons teachers gave for using museums and the previous version of Form A did not cover this as well as it could have done; and Q.25 asked new questions about teachers' use of museums at the request of MLA. A 'don't know' category was added to Q.12-19.

There were two versions of Form B, the questionnaire for pupils; Form B Key Stage 2 (KS2) and below was for pupils aged 5-11 years, and Form B Key Stage 3 (KS3) and above was for pupils aged 11-18 years. Both Form Bs asked the same questions, but in slightly different ways. They had both worked well in the

¹² Except the figure for October 2005 which was not sent for the deadline of 4 November 2005.

¹³ Figures were not sent to meet the deadline of 4 November 2005.

¹⁴ Figures were not sent to meet the deadline of 4 November 2005.

¹⁵ Evaluation packs were sent to Armley Mills but these were all used for outreach visits off-site so this site has been discounted.

first study. Form B KS2 and below had included a space for writing or drawing at the bottom of the page which had produced some unexpectedly powerful results and for this study it was decided that the questionnaire for the older pupils would also contain a space for open-ended comments or drawings. This entailed a slight modification in the questions to allow for the space needed.

As in the first study, one Form A and 40 Form Bs were put together into an envelope (an Evaluation Pack) so that they could be given out at the end of a school visit to one of the museums in the study. In contrast to the first study, when 40 copies of both Form B KS2 and below and Form B KS3 and above were included in each envelope, in the present study, only one type of Form B was included and the envelope was marked accordingly.

A system of numbering was used, as in the first study, so that each Evaluation Pack had its own unique number so that each museum, school and Hub could be identified. Museum staff giving out the Evaluation Packs were asked not to separate the Form As and the Form Bs in each pack, to use a separate pack for each group, not to photocopy any of the forms and to discard any unused forms. However, there proved to be complications here.

The Evaluation Packs were given out at the end of a school visit in each of the 69 participating museums during the months of September and October 2005. This seems to have proved more difficult for museums in the second study than in the first, where museum staff appeared to understand what the research processes required, and worked very hard to achieve it. In 2005, it did not seem that all staff involved in the research fully understood what was needed, and as a result the distribution and return of the Evaluation Packs proved more difficult for RCMG to manage than previously.

Some of the Evaluation Packs that were returned to RCMG had the following characteristics:

- contained Form A only
- returned without Form A
- returned with Form Bs mixed together from different packs
- returned with Form A from a different pack.

Where packs were returned with Form As only, which in most cases was because the children were too young to complete the questionnaires, these packs were included in the analysis to maximise available data and were only excluded from a small number of analyses in which teachers' responses are compared with their accompanying pupils. Quite a number of the museums were not clear about how many packs they used. In addition, too many packs were taken away by teachers.

There were considerable problems for many museums in estimating the numbers of Evaluation Packs required. In total 3,812 Evaluation Packs were sent to the museums by RCMG, but not all of these packs were given out. Very many museums appear to have over-estimated the number of visits they expected during September and October 2005, and hence the number of Evaluation Packs they would need.

Museums have not always been able to keep a track of the packs distributed in some of the museums. Where packs have been taken from a central museum to a number of external museum sites to be given out to teachers and then collected up again prior to that teacher leaving the site it proved in some cases difficult to manage and control this process. Where museum staff have been under pressure from other work commitments, have not fully understood the significance of the research, or were new in post, this added to the difficulties. None-the-less, strenuous efforts were made in museums to overcome these problems, although they were not always successful, and in some cases, packs have proved difficult to track.

Where museums have been unclear about numbers of packs given out, it has been difficult for RCMG to establish a view of the response rate of Evaluation Packs. However, through continued conversations with museums, it has been possible to arrive at the best possible estimate of how many packs were given out in each of the 69 museums in the study. From this, taking account of the actual packs returned to RCMG, it is possible to calculate the response rate for each of the museum sites, and a response rate for the study overall.

The following tables below show the estimation, distribution and return of Evaluation Packs.

Table 2.2.3a: Phase 1 museums: estimation, distribution and return of Evaluation Packs

Hub	Museum	Total Evaluation Packs sent	Distribution by museum	Number returned to RCMG	Return rate ¹⁶
NE	Tyne and Wear Museums	355	249	195	78%
	Beamish	165	94	37	39%
	Hartlepool Museums	10	7	4	57%
	The Bowes Museum	50	17	11	65%
SW	Bristol Museums, Galleries and Archives	107	48	26	54%
	Russell-Cotes Art Gallery	50	6	1	17%
	Royal Albert Museum, Exeter	92	92 ¹⁷	58	63%
	Plymouth City Museum and Art Gallery	34	23	11	48%
	Royal Cornwall Museum	125	69	27	39%
WM	Birmingham City Museums and Art Gallery	370	271	223	82%
	Wolverhampton Art Gallery	43	29	10	34%
	Ironbridge	180	139	86	62%
	Coventry Arts and Heritage	100	77	73	95%
	Potteries Museums and Art Gallery	150	121	65	54%
Total		1831	1242	827	67%

¹⁶ This is based on dividing the number of packs handed out by the museum with the number returned to RCMG.

¹⁷ Exeter's figures were based on number of packs we sent rather than how many the museum gave out as we were unable to obtain this information until after the deadline for calculating response rates. Using information obtained after the deadline the actual number of packs given out by the museum was 67 bringing the response rate to 86.5%.

Table 2.2.3b: Phase 2 museums: estimation, distribution and return of Evaluation Packs

Hub	Museum	Total Evaluation Packs sent	Distribution by museum	Number returned to RCMG	Return rate
EM	Leicester Museums	115	64	56	88%
	The Collection, Lincoln	48	44	42	95%
EE	Roots of Norfolk	64	52	38	73%
	Colchester Castle	135	121	50	41%
	Luton Museums	70	59	58	98%
LO	Museum of London	360	163	124	76%
	Horniman Museum	220	113	93	82%
NW	Manchester Art Gallery	150	70	61	87%
	Bolton Museum and Art Gallery	70	54	49	91%
	Tullie House Museum	70	45	38	84%
SE	Milestones	263	57	49	86%
	Brighton Museum and Art Gallery	150	71	69	97%
YO	York Castle Museum	106	63	57	90%
	Ferens Art Gallery, Hull	30	20	19	95%
	Leeds Heritage Services ¹⁸	134	134 ¹⁹	118	88%
Total		1985	1130	921	82%

The overall response rate is impressive, although it does not reflect the difficulties in managing the research processes in the museums. Neither does it record the percentage of usable packs returned by museums – only the actual fact of return has been considered and any return of any pack is included. Although some museums sent a considerable percentage of their returns in rather a muddled state, and these have had to be excluded from some analyses (especially where Forms A and B are linked) the overall return rate is very respectable for a large scale survey of this kind. Harvey and MacDonald suggest that the response rate for postal questionnaires is often very low,

¹⁸ Leeds photocopied more packs themselves so there will be a discrepancy in the figures, all these numbers are estimates.

¹⁹ Leeds' figures were based on number of packs we sent rather than how many the museum gave out as we were unable to obtain this information until after the deadline for calculating response rates. Using information obtained after the deadline the actual number of packs given out by the museum was 137 bringing the response rate to 97.8%.

between 10% and 40%, while the response rate for questionnaires administered by interviewers is generally higher, between 40% and 80%.²⁰ Barnett suggests that the response rate for postal questionnaires may be 50%.²¹ The Evaluation Packs were not postal surveys, but neither were they administered by interviewers. They were given to teachers at the end of a school visit to a museum. Arguably, this is a very difficult time to complete a fairly complex questionnaire, and museums were given advice at the beginning of the research process during the briefing seminar as to how to best to aid teachers in completing the questionnaire at a time when the bus might be arriving to take the pupils back to school, the space might be needed by an in-coming group, there might be no level surface on which to lean, and innumerable other calls on the teacher's time might be made.

The response rate of 67% in the Phase 1 museums and 82% in the Phase 2 museums in 2005 can be compared with a response rate of 78% in the first study in 2003.

2.2.4 Form C: Numerical data collection of use of museums by school-aged children September and October 2002, 2003, 2004, 2005

Form C collected numerical data on numbers of school-aged children visiting museums during September and October between 2002 and 2005. Although Form C had much the same purpose as in the earlier study, there was a significant change in the categories for inclusion.

Form C 2003 asked museums to put into a table: 'the total number of pupils involved in museum activities (including visits to museums, outreach to schools etc.).' Form C 2005 was much more specific and detailed and used a different way to describe the young people. It used a set of categories of usage based on the approach that MLA was taking to the DCMS performance indicators for museums.²² Instead of referring to 'pupils', Form C 2005 asked for the total number of 'school-aged children' (5-16 years) involved in all Hub museum-related activities during September and October, including participation in:

- visits to Hub museum by school-aged children in educational groups accompanied by teacher(s)
- visits to the Hub museums by school-aged children with Special Educational Needs (SEN) or from SEN schools
- organised activities at Hub museums involving school-aged children but not visiting with a school e.g. homework clubs, out of school clubs, Brownies
- outreach activities involving school-aged children which take place in schools (loan boxes count as outreach where facilitated by an education officer or a teacher trained by an education officer)

²⁰ Harvey, L. and MacDonald, M., 1993, *Doing Sociology: a practical introduction*, MacMillan, 126.

²¹ Barnett, V., 1991, *Sample survey: principles and methods*, Edward Arnold, 68.

²² These were taken from the MLA Data Collection Guidelines, 4th January 2005, for Hub museums, Templates 1-3. Form C was agreed by MLA prior to distribution to museums in this study.

- outreach activities not organised by their school but in the context of a youth group or community centre activity.

While all the categories set out in the 2005 version are covered in the 2003 categories, it is possible that the more specific guidelines in 2005 may have resulted, for instance, in increased types of group being reported by museums.

Form C 2005 asked all museums to report the numbers of school-aged children between 2002-2005, however, after discussion with MLA, RCMG were asked to disregard the figures provided for 2002-2003, as MLA had discovered in other data collection exercises that these early figures were frequently based on unreliable estimates, as they concerned the period prior to the establishment of guidelines for the collection of data. Accordingly, only those figures concerning the period 2003-2005 are used in this study.

2.2.5 Form D: The impact of Renaissance funding on museums and education

Form D collected information about the impact of Renaissance funding on the museums. It consisted of 5 closed questions and 4 open-ended questions. It was intended that this would enable staff in those museums that have been involved in the Renaissance programme to reflect on its impact and to discuss this together. It was hoped that both education staff and senior management staff would be involved in discussions, but in the event, although almost all responses resulted from discussion, very few senior managers, others than those concerned with education, had been involved.

2.2.6 Three focus groups

It was intended that focus groups would be arranged with teachers with specific types of experience, to include primary teachers using museums for Science, advanced skills teachers, and newly qualified teachers (NQTs). It was hoped that this would provide particular perspectives on the use of museums. Museums participating in the research were asked to help set up and organise these groups. It proved difficult to recruit the specific kinds of teachers originally hoped for, and it became necessary to abandon the more sophisticated approach for a simpler and more pragmatic one. The focus groups were designed to be smaller (with a maximum of ten participants) than the first study so that issues could be explored in greater depth. In the 2003 study teachers described visits and content but were much less able to articulate or analyse the learning that took place in the museum. The teachers in the focus groups in this study were much more articulate and reflective about their pupils' learning; the evidence from the 2003 study was shown to the teachers using the flip-book and teacher testimony from 2003 was also a good catalyst to encourage discussion.

Three focus groups with primary, secondary and special school teachers were carried out in three of the Hubs covered by the evaluation: West Midlands and South West, Phase 1 Hubs and a Phase 2 Hub in the North West. In total the views of 22 teachers were obtained in the focus groups.

Table 2.2.6a: Details of the three focus groups

Date	Hub	Venue	School type	Number of teachers
12/10/2005	West Midlands	Birmingham Museum and Art Gallery	Primary and special	10
13/10/2005	North West	Museum of Science and Industry, Manchester	Secondary	3
20/10/2005	South West	Devon Curriculum Services, Great Moor House, Exeter	Mixed	9

Documentation including interview transcripts, reflections from researchers, post-code analysis of the schools involved and additional context material was gathered as part of the analysis of the focus group discussions.

The focus groups included both experienced and less experienced teachers and produced useful evidence that gave meaning and context to the quantitative data. (Please see Appendix 4 for a list of all participants).

First Focus Group

Venue: Birmingham Museum and Art Gallery, Birmingham

The Birmingham focus group consisted of highly motivated teachers from 9 primary schools and one special school. These teachers represented a mixture of age, experience and ethnicity and were involved in teaching a range of subject areas including History, Geography and Maths. The types of schools represented were diverse including a Catholic primary school and a school with a 96% Muslim population, although all these teachers represented an urban perspective. The teachers at the Birmingham focus group represented schools which were located in very deprived areas. Seven of the ten schools represented here are located in post-code areas which are in the top 10% of deprived areas in England according to the IMD 2004.²³ Issues in relation to ethnicity, socio-economic deprivation, cultural entitlement, aspiration, class mobility and inclusion were a focus for these teachers.

These teachers were in the main very experienced users of museums and other cultural resources. They described using a range of museums and other cultural organisations in a range of ways. They reported using museums at all different times of a term, at different times during teaching a subject- to introduce a topic, to illustrate it in the middle and to conclude a subject area. They reported making use of all the resources museums offered- facilitated sessions, booklets, teaching packs, World Wide Web pages and so forth. They also reported being comfortable undertaking self-led sessions. These teachers were thoughtful about their use of museums and museum provision. In summary, these teachers were confident and motivated users of museums who

²³ The IMD 2004 measures multiple deprivation at Super Output Area level (SOA) and ranks these from 1 as the most deprived to 32,482 as the least deprived. See section 3.5 for explanation of these terms.

were able to use museums as a resource in many different ways, for many different purposes.

These teachers were sourced for the research by the well established museum education service at Birmingham Museum and Art Gallery which was part of the Phase 1 Hub in the Renaissance programme.

Second focus group

Venue: Museum of Science and Industry, Manchester

It was especially challenging to recruit secondary teachers despite involving several museums in this process including The Museum of Science and Industry, The Whitworth Art Gallery, Manchester Art Gallery and The Manchester Museum. Although numerically small, the North West focus group was very fruitful.

The teachers who participated in the focus group at Manchester were secondary school teachers representing a diversity of perspectives. These teachers taught pupils from a range of socio-economic backgrounds but tending towards socio-economically deprived rather than affluent. One of the schools was located in an area which is in the top 10% of deprived areas in England while the other schools are in the 30-40% category when ranked according to the IMD 2004. Two of the schools were inner city schools; one drew its pupils from a large area whereas the other drew its pupils mostly from its neighbourhood. The latter school was an all-girl's school with a high population of girls from a Muslim background. The third school was located just outside Manchester in a comparatively affluent area. Two of the teachers taught Art and the third was a Science teacher. Like the Birmingham focus group these teachers were very concerned with issues in relation to ethnicity, socio-economic deprivation, cultural entitlement, aspiration, class mobility and inclusion. In addition to this, these teachers were very thoughtful about the impact of museums on their pupils' attitudes and values both in relation to their understanding of contemporary society and their understanding of themselves.

Two of the teachers were very experienced users of museums and cultural resources; the other teacher was fairly new to the use of museums as a resource for teaching. All teachers described using a range of museums in a diversity of ways. Like the Birmingham teachers, these teachers were very reflective about their use of museums and museum provision but possibly due to the small size of the session, we were able to get much more depth and detail about teachers' use of museums and their understanding of their pupils' learning outcomes. These teachers were very confident in describing their use of the full range of museum resources and were also confident about using museums for self-led visits. (The teacher who was new to using museums for teaching was not as confident as the other teachers but nevertheless described using a range of museums in a variety of ways and was very reflective about both her use of museums and museum provision). In summary, these teachers were confident and motivated users of museums who were able to use museums as a resource in many different ways and for many different purposes.

Third focus group

Venue: Devon Curriculum Services, Great Moor House, Exeter

The teachers who participated in this focus group were quite different to the teachers who participated in the groups in Birmingham and Manchester. These teachers were a mix of mostly primary school teachers of History and Art, one secondary school teacher and two special school teachers. The teachers came from schools in areas which were mostly rural in character. The schools represented by teachers in this focus group were from areas of significantly less deprivation than the other focus groups. Six of the nine teachers participating in this group came from schools which were located in areas in the 50-70% category when ranked according to the IMD 2004. The other three schools represented came from areas which were in the 30-40% category according to the IMD 2004. The teachers at this focus group represented a geographical spread across the county and potentially could have represented rural issues in a way that the Birmingham and Manchester focus group did not. However, unlike the Birmingham and Manchester focus groups, and with the exception of one of the special school teachers, issues to do with ethnicity, socio-economic deprivation, cultural entitlement, aspiration, class mobility and inclusion were not points of reference or discussion for these teachers.

On the whole it seemed that these teachers were less experienced and/ or less sophisticated users of museums than the teachers we had experienced in the other two focus groups. While these teachers did mention a range of museums they visited and a range of museum resources they drew on, the dominant description of their purpose for using museums and the impact of museums on their pupils was much more limited. These teachers tended to use museums passively rather than proactively, and this seemed to be because they had a limited understanding of the potential of the museum as a learning resource. The dominant use of museums seemed to be specifically in relation to a topic-to 'do the Romans' - and in this use there was little flexibility. The dominant perception seemed to be that the museum was most useful in the middle of teaching a topic (rather than at the beginning) because you 'don't expect the museum to teach the children'. While these teachers were able to identify a range of museums and museum resources they had used they did not seem to be able to reflect on different types of use and different types of provision from the perspective of impact or quality.

This group of teachers was established for the research through the relatively new museum education service at the Exeter Museum which was part of the Phase 1 Hub in the Renaissance programme.

2.2.7 Three case-studies

It was intended that the case-studies would enable us to consider the potential differences in outcomes in relation to school-museum relationships which are: a) extended over a number of museum sessions, b) involve a school which was a new museum user and c) involve a school which was a regular user of museums with a well-established relationship but which was using the museum for a single session. However, the case-studies also proved difficult to arrange, especially given the time-frame for the research which essentially only permitted case-studies to be carried out during a 2 month period (mid September- mid November 2005). In the event, three case-studies were set up. Two case-studies involved in-depth analysis of two particular KS2 classes and their use of museums and one case-study involved in-depth tracking of a particular KS3 class and their use of a museum. The case-studies were representative of the following perspectives:

- a KS2 class from a deprived urban area with a very multi-ethnic school population visiting a museum for a single visit
- a KS2 class from a deprived urban area (not multi-ethnic) engaging in a longer term (6 week) relationship with a museum service
- a KS3 class from a rural area visiting a museum for a single visit.

Each case-study involved the following:

- observing the class in at least one teaching session in school
- observing the class while on a museum visit
- recording and transcribing interviews with a selection of pupils from the class, the class teacher and, the head teacher, deputy head teacher or other teachers as appropriate
- asking the pupils to fill out a Form B questionnaire immediately after their museum visit and then again on our subsequent visit to the school (a week or up to four weeks later)
- gathering post-codes, IMD 2004 data in relation to deprivation and child poverty, Ofsted Reports (where these were reasonably current), DfES and other available data about the school and its context
- gathering information about the museum.

Table 2.2.7a: Details of case-study visits

Date	Researchers	Venue	Objective
20/09/2005	Jocelyn Dodd Ceri Jones	Wolverhampton Art Gallery	Observed visit by Whitgreave Junior School
04/10/2005	Jocelyn Dodd Lisanne Gibson	Whitgreave Junior School, Wolverhampton	Observation of art session
14/10/2005	Jocelyn Dodd Lisanne Gibson	Blakesley Hall, Birmingham	Observed visit by Yarnfield Primary School
18/10/2005	Jocelyn Dodd	• Wolverhampton Art	• Interviewed

	Lisanne Gibson	Gallery <ul style="list-style-type: none"> Whitgreave Junior School 	<ul style="list-style-type: none"> museum staff Interviewed pupils and teachers
01/11/2005	Lisanne Gibson Ceri Jones	Yarnfield Primary School, Birmingham	Follow up visit to the school– interviewed pupils and teachers
07/11/2005	Jocelyn Dodd Lisanne Gibson	Downham Market High School, Norfolk	Initial visit to the school- interviews with teachers observation of pupils
14/11/2005	Jocelyn Dodd Lisanne Gibson	Roots of Norfolk, Gressenhall	Observation of school visit
21/11/2005	Jocelyn Dodd Lisanne Gibson	Downham Market High School, Norfolk	Follow-up visit to interview pupils Focus group with teachers

Through the IMD 2004 and information about levels of free school meals we can categorise the case-study schools and compare them with schools represented by teachers who filled out Form A. This enables us to understand the case-study schools as representative of particular types of school and their experience of partnerships with museums. The issues raised and examples given by teachers interviewed for the case- studies can be understood as broadly indicative of the range of schools reached in the quantitative research. Thus this evidence goes beyond the anecdotal and can be understood as illustrative of particular types of school and their experience of partnerships with museums. (Please see Appendix 5 for a list of all participants).

First case-study:

Whitgreave Junior School and Wolverhampton Art Gallery

Whitgreave Junior School has 200 pupils aged 7 to 11 years on roll. The school has pupils from disadvantaged backgrounds and poorly performing pupils and was part of the Education Action Zone scheme until January 2005 when this scheme finished; it is now part of the 'Excellence in Cities' scheme.²⁴ This means the school receives additional resources including extra teaching staff so the teacher-to-pupils ratio is smaller than at other primary schools. Whitgreave Junior School draws its pupils from its local area. The school is located in Low Hill ward which is the second most deprived area of Wolverhampton and in the top 10% of the most deprived areas in England according to the IMD 2004.²⁵ This is a predominantly white neighbourhood and the school is comparatively ethnically homogeneous with about 10% of pupils from a mixed black heritage. In 2004 15.8% of pupils on roll had SEN and in 2005 no pupils in the school had English as an additional language. The school

²⁴ Department for Education and Skills, 2003, *Councillor's Policy Brief*, http://www.standards.dfes.gov.uk/la/CF.POLICY_BRIEF_2003.pdf.

²⁵ National Statistics, <http://neighbourhood.statistics.gov.uk/>

has above average figures for pupils receiving free school meals (47%) and attendance is erratic and can be poor. Children come to the school with very low levels of attainment and while they do make some progress at school, levels are generally poor. In 2004 only 47% of pupils in KS2 achieved a 4 or above in English, 54% achieved a 4 or above in Mathematics; however, 85% achieved a 4 or above in Science.²⁶

Wolverhampton Art Gallery is part of Wolverhampton Arts and Museums which was part of a Phase 1 Hub in the Renaissance programme. The Gallery runs a programme, 'Creativity in the Curriculum', which funds a museum education officer to follow up a class visit to the museum by going into school for five half days over a number of weeks. The visits are planned to support the school's Art scheme of work and the aim is to leave the school with knowledge or skills that can be used in the future.²⁷ The programme is as much about the teacher's professional development as it is about the pupils' learning, if not more so. This programme is currently funded by Renaissance funding.

The visit we observed at the museum involved two classes from the school split into two groups which rotated around two sessions; one group was led by an education officer, the other group was taken by an art interpreter. The session was designed to introduce pupils to portraiture and the use of composition skills to portray relationships as part of the Art National Curriculum. In the museum the pupils were introduced to sculpture and paintings of people and invited to guess who might be an appropriate person to insert into the picture, for instance, mother, son and so forth. In the follow-up sessions at the school the focus was on portraiture as it was decided that the pupils may not be capable of undertaking work on relationships. The education officer from Wolverhampton Art Gallery visited the school over a five week period and introduced the pupils to a number of art and craft skills such as sgraffito, press printing, and collage. These activities were chosen in consultation with the class teacher.

The pupils we observed were Year 3, aged between 7 and 8 years. The pupils were placed on four tables in class in relation to their ability levels. We interviewed 4 pupils who represented all ability levels, a equal mix of genders and a diversity of perspectives: one child was from the lowest level of ability table but had gained a lot from the involvement with the museum; another child had a very quiet personality, was from the less than average ability table and had done something very unusual for her self portrait; another child was from the above average ability table and was described by his teacher as 'a bit naughty' but had gained a lot from the interaction with the museum; and the final pupil was from the top level of ability table and was very talkative with the researchers about the work she was doing when they observed the session in class with the museum educator.

²⁶ Department for Education and Skills, *DfES School and College Achievement and Attainment Tables*, <http://www.dfes.gov.uk/performance/tables/>

²⁷ Wolverhampton Arts and Museums, 2005, *Schools Programme, 2005-6*, Wolverhampton Arts and Museums.

Second case-study

Yarnfield Primary School and Blakesley Hall, Birmingham

Yarnfield Primary School is a very large primary school with a nursery which caters for pupils from 3 to 11. In 2005 it had 690 pupils on roll. It draws pupils primarily from its neighbourhood and the radical change in the make-up of the neighbourhood over the past 7 years is reflected in the ethnic characteristics of each school year group, which becomes more ethnically diverse in the younger age-groups. The area is a very deprived and is in the top 10% of most deprived areas in England according to the IMD 2004.²⁸ In socio-economic terms the area is very similar in profile to that of the Wolverhampton primary school. However, over the last seven years the area has changed from being a primarily white working class neighbourhood to being very multi-ethnic. In 2004 the Fox Hollies ward, where the school is located, had a 17.62% Asian population (the UK average is 4.37%) and a 3.65% Black population (the UK average is 2.19%).²⁹ Fifty-five percent of the pupils receive free school meals and the school receives special funding from the Children's Fund due to the high incidence of drug abuse and teenage pregnancies in the area. About 25% of the pupils in the school have SEN and the deputy head teacher estimates that a further 15% have learning difficulties due to having English as an additional language. Pupils' level of attainment on entry to school is well below average especially in language and literacy; however, pupils do very well over the course of their attendance at this school. In 2004 65% of KS2 pupils achieved 65% or above in English, 65% achieved level 4 or above in Mathematics and 73% achieved level 4 or above in Science.³⁰

Blakesley Hall is a large Tudor timber-framed farmhouse located in the middle of a 1930s housing estate. The schools liaison officer has been organising education programmes there since 1987. This provision is part of the Birmingham Museums and Art Gallery educational service which is a very established, long running and highly organised service. Blakesley Hall offers a facilitated tour of the house and a 'classroom' with pre-organised and self-directed activities for the pupils to do after their tour. These activities make use of the substantial kitchen garden attached to the house and a number of objects that the pupils are introduced to as part of their tour.

The visit we observed involved one KS2 class who were making this visit at the end of a study block on the everyday life of the Tudors, before commencing another block which focused on the Tudors and international exploration, war and trade.

We observed the pupils as a group and noted that the class was very multi-ethnic with a mixture of pupils from Asian, Middle Eastern and Mixed Black heritages. The class represented a range of ability levels and on a subsequent visit to the school we interviewed 6 pupils on the basis of their representation of gender, ability level, experience of museums and likelihood that they might have got a lot out of the visit to Blakesley Hall.

²⁸ National Statistics, <http://neighbourhood.statistics.gov.uk/>

²⁹ National Statistics, <http://neighbourhood.statistics.gov.uk/>

³⁰ Department for Education and Skills, *DfES School and College Achievement and Attainment Tables*, <http://www.dfes.gov.uk/performance/tables/>

Third case-study

Downham Market High School and Roots of Norfolk, Gressenhall, Norfolk

Downham Market High School is a larger than average comprehensive school catering for 11 to 18 year olds. In 2004 it had 1557 pupils on roll and serves the rural area within a radius of 12 miles. It is a popular school and is therefore over-subscribed. The socio-economic and attainment profile of pupils is about average with a below average proportion of pupils with SEN and an above average proportion of pupils with statements of special need.³¹ The school and the area are very ethnically homogeneous. West Norfolk and East Downham ward, where the school is located, is 98.48% white, in comparison to 91.31% for England and Wales.

Roots of Norfolk, Gressenhall is part of the Norfolk Museums and Archaeology Service. The museum is housed in a large former workhouse built in 1777. In 2001 after a major refurbishment it was re-opened as the first museum in the country to tell the story of the nineteenth century workhouse and its everyday life. With the launch of Roots of Norfolk, Gressenhall, the education service was re-launched to include live interpretation and theatre in education using actors to play characters that would have occupied or been associated with the Workhouse. This model is based on facilitating peoples' learning at the museum by presenting them with different viewpoints and provoking an emotional response. This model of delivery is very resource-intense and the extra half a staff post which this museum has received as a result of Renaissance funding has given more capacity which has been used to target new groups and extend and broaden the kinds of subject areas that can be covered at the museum. In addition to a large number of KS2 groups the museum also caters for KS3 groups doing History and Geography and A-level groups doing Psychology.

The visit we observed at the museum was designed in a very close partnership between the school and the museum. The model for this visit is now being used by other schools that are adapting it to their particular purposes. The visit was part of a four week focus on the topic of the nineteenth century workhouse and poor laws which is part of the curriculum for KS3. This work was assessed in the form of a written assignment. The visit to Roots of Norfolk, Gressenhall was designed to present the pupils with primary and secondary evidence and different perspectives on the question 'Was the Workhouse So Bad?' which is the title of the assignment the pupils subsequently wrote.

While we observed all the pupils in the groups we followed at the museum (about 40 pupils in all), we followed 13 pupils in particular who were aged between 13 and 14 years. We selected these pupils on our first visit to the school where we observed two classes, one class streamed as average ability and a class in the lowest stream for ability. In these classes we selected pupils representative of both genders in order to get a diversity of perspectives, these were:

³¹ Ofsted, 2004, *Inspection Report, Downham Market High School*, <http://ofsted.gov.uk/reports/121/121210.pdf>

- pupils who were most likely to do something unusual for their assignment
- pupils who were most likely to get the most out of a visit to the museum
- a badly behaved pupil who may get a lot out of a museum visit
- a pupil with poor writing but who may get a lot out of a museum visit
- a pupil with good writing but who may get a lot out of a museum visit
- a pupil with SEN

In addition to observing these pupils on their museum visit we also subsequently interviewed them a week after their visit.

2.2.8 Seminars with museums

During the first research study in 2003, the seminars with the museum participants had proved essential in building a research community, in designing the research tools and in reviewing and discussing the emerging research findings. It was therefore decided to repeat these seminars as an integral part of the research design, which stated:

- museum participants in the research would be fully briefed (July 13th 2005) and their views about the research processes considered in the final research design, especially in the design of research tools
- research findings would be explored and discussed by the research team from RCMG, the clients (MLA), and the research participants from the Phase 1 and Phase 2 Hub museums at a research seminar on December 5th 2005, prior to the completion of the final report.

These dates were established as part of the development of the research design. MLA was fully involved in each of the seminars.

The first seminar was held at the Park Crescent Conference Centre in London on July 13th 2005. A representative from each of the museums was invited by MLA to the seminar, and this was positioned as 'essential' to the research. Not all those invited could attend; the seminar included 25 museum participants. Full briefing on the research was given, and some of the findings of the first study were presented. Some of those who had used specific strategies to engage teachers in the research process in 2003 described what these had been. The research tools were explained and reviewed by the participants. Some modifications were discussed, and one or two were accommodated; for example, there was a request to add Information, Communication, Technology (ICT) to the list of skills in Q. 14. The timescale and the various processes were outlined. Follow-up materials were sent to those who could not attend.

The second seminar was held at the Institute of Materials, Minerals and Mining in London on 5th December 2005. Two representatives from each Hub and one representative from each Regional Agency were invited. Numbers were kept relatively small to facilitate in-depth discussion of the emerging findings.

The seminar was attended by 17 museum participants. The opportunity was taken by the research team from RCMG to present and discuss the emerging findings from the research and to explore any issues to arise during the research for the museum participants. (Please see Appendix 6 for list of all participants).

2.3 Conclusion

This is a very large study, involving 69 museums from all 9 museum Hubs, and using a full range of research methods, most of which focus on the pupils' learning outcomes following a museum visit, but which also enable the inclusion of the perspective of the museums in receipt of Renaissance funding. Some changes were made to the research tools, but on the whole, they remained largely the same as in the 2003 study in order to facilitate comparison and to build up a consistent body of data. The research tools have worked well, and together, the range of research methods has produced a very large and useful body of data, which enables confirmation of some of the findings from 2003, while also exposing some of the changes in the relationships between schools and museums.

Some museums struggled with the research, and we did not feel that a research community developed, as it did in the first study in 2003. There may have been a number of reasons for this, including an increase in numbers of participants in the research. In 2003, the research tools were piloted by the lead museums in the Phase 1 Hubs, and the seminar in July involved considerable discussion, followed by some modification, of the research tools, and this may have helped some participants to invest in the research. This did not happen in 2005, as the same tools were used and so it was deemed that piloting was not necessary. There may in addition in 2005 have been issues of difficulty in communicating between Hub leaders and museums in relation to the research processes.

It proved more difficult than expected to arrange case-studies. This was largely because the arrangements could not begin until school visit bookings were in place in September, and all research processes needed to be complete before the middle of November at the latest. This left only a few weeks for the events, one of which was a half-term week. The case-studies involved several visits to schools and museums over a period of weeks, which needed some time to achieve. Arrangements with schools are not always easy to establish as teachers are sometimes hard to get hold of, and plans sometimes change at short notice.

It would have been useful to the research to have been able to identify the issues posed by the quantitative research and then to have designed the generation of qualitative evidence through case-studies and focus groups to explore some of these puzzles, but this would have entailed a longer project. Instead, the research team used the first study in the shaping of the discussions with teachers and pupils, and it became clear that showing teachers some of the data from the first study (statistics, drawings from the flipbook, or quotations) helped them understand what the researchers were looking for, and thus more specific information and examples were given.

The research methods used in this research have produced a very large body of data concerning teachers' use and value of museums, and their views of the learning outcomes of their pupils following a museum visit. Pupils' views have also been gathered.

The report is complex, and requires careful reading because of the comparisons over time (2003 and 2005) and space (Phase 1 and Phase 2 museums), where many small differences are reported, some of which are significant (in statistical terms) and some of which are not.

The report presents the findings from the large 2005 study, and compares these findings with the earlier 2003 study. Comparisons are also made within the 2005 study, with the Phase 1 and Phase 2 museums being reviewed separately and compared. Where comparisons are made between the complete 2005 study and the complete 2003 study, it must be remembered that the 2003 study involved the Phase 1 museums only, while the 2005 study involves both the same Phase 1 museums and also Phase 2 museums.

The report describes school use of museums (Section 3) and then discusses in broad terms how teachers use museums (Section 4). Section 5 discusses in some detail how teachers value museums, considering this carefully in relation to different kinds of use and purpose. Section 6 reviews what teachers think about what their pupils may have learnt while visiting a museum, and Section 7 considers pupils' views of the same thing. Qualitative data and quantitative data are used together in most of these sections, and where possible, illustrations are given. Section 8 reviews the views of museum educators of the importance of the Renaissance programme to their practice. Section 9 outlines the findings, relating them to current government agendas. The Appendices contain details of research tools, museum participants, school case-studies, focus groups, seminar participants, coding categories, and references.