

Towards an Assessment of the Value of Archaeological Education for Primary School Pupils

Volume II

Trudie Cole

UCL

Thesis submitted for an examination for the degree of Doctor of Philosophy

(PhD)

Contents

Title	1
Contents	2
Appendix A - Literature Search Details	3
Appendix B - Documents and Notes from the Pilot Questionnaire Phase	5
Appendix C - Questionnaire	10
Appendix D - List of Organisations Who Responded to the Questionnaire	16
Appendix E - Main Trends from the Questionnaire	18
Appendix F - Summary Observation Notes	20
Appendix G - Creativity Assessment and Generic Learning Outcome Assessment Proformas	56
Appendix H - Data Table for Each Case	59
Appendix I - Full Data Tables	72
Appendix J - Full Case Study Backgrounds	75

Appendix A

Literature Search Details

Resource searched	Date	Search terms	Number of hits/ followed up
British Academy Portal (http://www.britac.ac.uk/portal/)	05/09/06	archaeological education; hands- on learning; museum learning; constructivism	566/7
http://www.ceruk.ac.uk/ceruk/	07/09/06	Archaeology; museums education; museum learning	20/3
http://www.heacademy.ac.uk/	07/09/06	archaeological education; hands- on learning; museum learning; constructivism	2/1
BIAB	24/09/06	archaeological education; hands- on learning; museum learning; constructivism	300/14
British education index	24/09/06	Archaeology; museums education; museum learning	15/12
British education internet resource catalogue	24/09/06	Archaeology; museums education; museum learning	146/2
Google	24/09/06	Archaeological education	0 refs, but high- lighted useful contacts
http://brs.leeds.ac.uk/~beiwww/beid.html	25/09/06	Archaeology; museums education; museum learning	99/4
http://www.ttrb.ac.uk/search.aspx	25/09/06	Archaeology;	1/1

		museums education; museum learning	
ERIC	26/09/06	Archaeology; museums education; museum learning	730/116
Google scholar	27/09/06	Archaeology; museums education; museum learning	76/3
Discovery resource network	18/10/06	archaeological education; hands- on learning; museum learning; constructivism	71/9
Intute (http://www.intute.ac.uk/)	18/11/06	archaeological education; hands- on learning; museum learning; constructivism	112/7
Jstor	18/11/06	archaeological education; hands- on learning; museum learning; constructivism	20666/48
Scopus (Metalib) (<a href="http://www.ucl.ac.uk/library/metali
b.shtml">http://www.ucl.ac.uk/library/metali b.shtml)	18/11/06	archaeological education; hands- on learning; museum learning; constructivism	1462/4
UCL library catalogue (Euclid)	18/11/06	archaeological education; hands- on learning; museum learning; constructivism	46/3
Web of search (Metalib) (<a href="http://www.ucl.ac.uk/library/metali
b.shtml">http://www.ucl.ac.uk/library/metali b.shtml)	18/11/06	archaeological education; hands- on learning; museum learning; constructivism	54/4

Appendix B

Documents and Notes from the Pilot Questionnaire Phase

i. Archaeological Organisations Who Completed the Pilot Questionnaire

1. Wessex Archaeology
2. Butser Iron Age Farm
3. Canterbury Archaeological Trust
4. Museum of London - ?
5. West Yorkshire Archaeology Advisory Service
6. Worcestershire Historic Environment and Archaeology Service
7. East Sussex Archaeology and Museums Project
8. English Heritage – Education
9. SEARCH - Gosport
10. Arbeia Roman Fort and Museum

ii. Pilot questionnaire cover letter

[Address of researcher]

[Date]

Dear [Archaeological Organisation],

I am a first year PhD. Student from University College, London and I am undertaking research into archaeological education. The title of my thesis is *Archaeological Education: An exploration of how archaeological education has been used and can be used to deliver child centred learning with respect to different learning styles.*¹

The first stage of my work is to create a list of all the different organisations undertaking archaeological education work. I am writing to you to ask whether you would be willing to complete my pilot questionnaire. The pilot has been designed with open ended questions. I am hoping to you the results from the pilot questionnaires will help me to generate options and scales for the finished questionnaire.

The pilot should take no longer than 20 minutes to complete (although feedback regarding the time taken would be appreciated). Please answer as fully as you can. Your comments on possible categories or unclear questions are welcomed.

Many thanks for your time.

Yours Sincerely,

Trudie Cole

¹ Please note the title of the thesis changed since this phase of the research.

iii. Questionnaire sent to archaeological organisations

This questionnaire is a pilot to find out about different archaeological education programmes and providers in England as part of PhD research programme. For the purposes of this questionnaire archaeological education has been defined as any event, activity or programme that use either archaeological skills and/or artefacts or the historic environment to deliver learning.

The purpose of this pilot questionnaire is to find out about the broad range of activities and issues so that the questionnaire can be refined. It shouldn't take any longer than 20 minutes to complete. Please answer as fully as you can and continue on a separate sheet if necessary. Any other feedback on the questionnaire is welcome. Thank you for taking the time to participate.

1. About your organisation

- A. What is your organisation called?

- B. What kind of organisation are you (i.e. museum, archaeological unit, interpretation company etc)?

- C. What is the main purpose of your organisation?

2. About education and your organisation

A. Does your organisation have any education policy (yes/no/in development)?

B. Is there anyone in your organisation responsible for education and if so who?

C. Do you offer services to schools (yes/no)?

3. About the educational services you offer.

A. What services do you offer schools?

B. What age groups do your services cater for?

C. How many schools used your services in the last quarter?

D. What is your most popular service?

E. What is your least popular service?

F. Do you work actively with teachers to develop your services?

G. Do you develop services in line with the National Curriculum?

H. Did you draw upon any methodologies or theories to construct your services and if so what?

I. Which National Curriculum subjects do your services cater for?

Thank you for completing this questionnaire. Please return in the SAE envelope or email to trudiecole@hotmail.com

Appendix C

Questionnaire

i. Questionnaire to archaeological organisations

This questionnaire is to find out about different archaeological education programmes and providers in England as part of a PhD research programme. For the purposes of this questionnaire archaeological education has been defined as any event, activity or programme that use either archaeological skills and/or artefacts or the historic environment to deliver learning.

The aim of this questionnaire is to find out about the diverse nature of archaeological education. It shouldn't take any longer than 20 minutes to complete. Please answer as fully as you can and continue on a separate sheet if necessary. Any other feedback on the questionnaire is welcome. Please pass blank copies of this questionnaire on to anyone else you know who is involved in archaeological education. Thank you for taking the time to participate.

1. About your organisation

- A. What is your organisation called?

- B. What are the contact details for your organisation?

- C. What kind of organisation are you?
 - a. Archaeological field unit [...]
 - b. Curatorial archaeology service (i.e. planning) [...]
 - c. Interpretation centre [...]

- d. Local Society [...]
- e. Museum []
- f. Research organisation [...]
- g. SMR/HER [...]
- h. Training organisation [...]
- i. Other (please specify) [...]

D. What are the main purposes of your organisation (please tick all that apply)?

- a. Curatorial archaeology (i.e. planning) [...]
- b. Display and exhibition of archaeology (e.g. museum or interpretation centre) [...]
- c. Education [...]
- d. Excavation [...]
- e. Maintain SMR/HER [...]
- f. Other fieldwork (including finds processing) [...]
- g. Research [...]
- h. Storage of archaeological collections (e.g. museum, archive or other storage facility) [...]
- i. Training [...]
- j. Other (please specify) []

2. About education and your organisation

E. Does your organisation have any education policy (yes/no/in development)?

F. Is there anyone in your organisation responsible for education and if so who?

G. Do you offer services to schools (yes/no)?

3. About the educational services you offer

H. What services do you offer schools (please tick all that apply)?

- a. Advice on using resources (written or oral) [...]

- b. Excavation [...]
 - c. Exhibitions aimed at school age learners [...]
 - d. Guided handling sessions (e.g. staff led, crib sheet or worksheet led) [...]
 - e. Inset sessions for school staff [...]
 - f. Loan boxes/source packs [...]
 - g. Online resources [...]
 - h. Other fieldwork (e.g. geophysical survey, field walking, survey, finds processing) [...]
 - i. Role-play/drama sessions [...]
 - j. Study days [...]
 - k. Support for school history or archaeology clubs [...]
 - l. Tours or site visits [...]
 - m. Unstructured opportunities for handling [...]
 - n. Work experience placements [...]
 - o. Workshops [...]
 - p. Other (please specify) []
- I. What age groups do your services cater for (please tick all that apply)?
- a. Foundation stage [...]
 - b. KS 1 [...]
 - c. KS 2 [...]
 - d. KS 3 [...]
 - e. KS 4 [...]
 - f. Staff [...]
 - g. Other [...]
- J. How many schools used your services in the last year? Please state whether this figure includes hits/downloads to any online material you supply (please give a number in the square brackets next to the appropriate category)?
- a. 0 – 25 [...]
 - b. 26 – 50 [...]
 - c. 51 – 75 [...]
 - d. 76 – 100 [...]
 - e. 101 – 150 [...]

- f. 151 - 500 [...]
- g. 500 + [...]

K. What is your most popular service?

- a. Advice on using resources (written or oral)
- b. Excavation [...]
- c. Exhibitions aimed at school age learners [...]
- d. Guided handling sessions (e.g. staff led, crib sheet or worksheet led) [...]
- e. Inset sessions for school staff [...]
- f. Loan boxes/source packs [...]
- g. Online resources [...]
- h. Other fieldwork (e.g. geophysical survey, field walking, survey, finds processing) [...]
- i. Role-play/drama sessions [...]
- j. Study days [...]
- k. Support for school history or archaeology clubs [...]
- l. Tours or site visits [...]
- m. Unstructured opportunities for handling [...]
- n. Work experience placements [...]
- o. Workshops [...]
- p. Other (please specify [.....])
- q. Don't know [...]

- L. What is your least popular service?
- a. Advice on using resources (written or oral)[...]
 - b. Excavation [...]
 - c. Exhibitions aimed at school age learners [...]
 - d. Guided handling sessions (e.g. staff led, crib sheet or worksheet led) [...]
 - e. Inset sessions for school staff [...]
 - f. Loan boxes/source packs [...]
 - g. Online resources [...]
 - h. Other fieldwork (e.g. geophysical survey, field walking, survey, finds processing [...]
 - i. Role-play/drama sessions [...]
 - j. Study days [...]
 - k. Support for school history or archaeology clubs [...]
 - l. Tours or site visits [...]
 - m. Unstructured opportunities for handling [...]
 - n. Work experience placements [...]
 - o. Workshops [...]
 - p. Other (please specify)[.....]
 - q. Don't know [...]

M. Do you work actively with teachers to develop your services and if so how?

N. Do you develop services in line with the National Curriculum (yes/no)?

- O. Did you draw upon any other frameworks or guidelines to construct your services (please tick all that apply)?
- a. Inspiring Learning for All [...]
 - b. Constructivist principles [...]
 - c. Learning style theories (i.e. Kolb or Gardner²) [...]
 - d. Knowledge of teaching and learning [...]
 - e. Other educational theories and methodologies (please specify)
[.....]
[.....]
 - f. Other archaeological theories and methodologies (please specify)
[.....]

- P. Which National Curriculum subjects do your services cater for (please tick all that apply)?
- a. Archaeology (at AS/A2 level) [...]
 - b. Art [...]
 - c. Citizenship [...]
 - d. Design and Technology [...]
 - e. Geography [...]
 - f. History [...]
 - g. Literacy [...]
 - h. Maths [...]
 - i. Science [...]
 - j. Other (please specify) [.....]

Q. Would you be willing to take part in further research? (yes/no/maybe).

Thank you for completing this questionnaire. Please return to Trudie Cole electronically at [email address] or in hardcopy to [postal address]

²Please note this was based on an early confusion about the difference between theories of intelligence and learning styles theory which was later corrected.

Appendix D

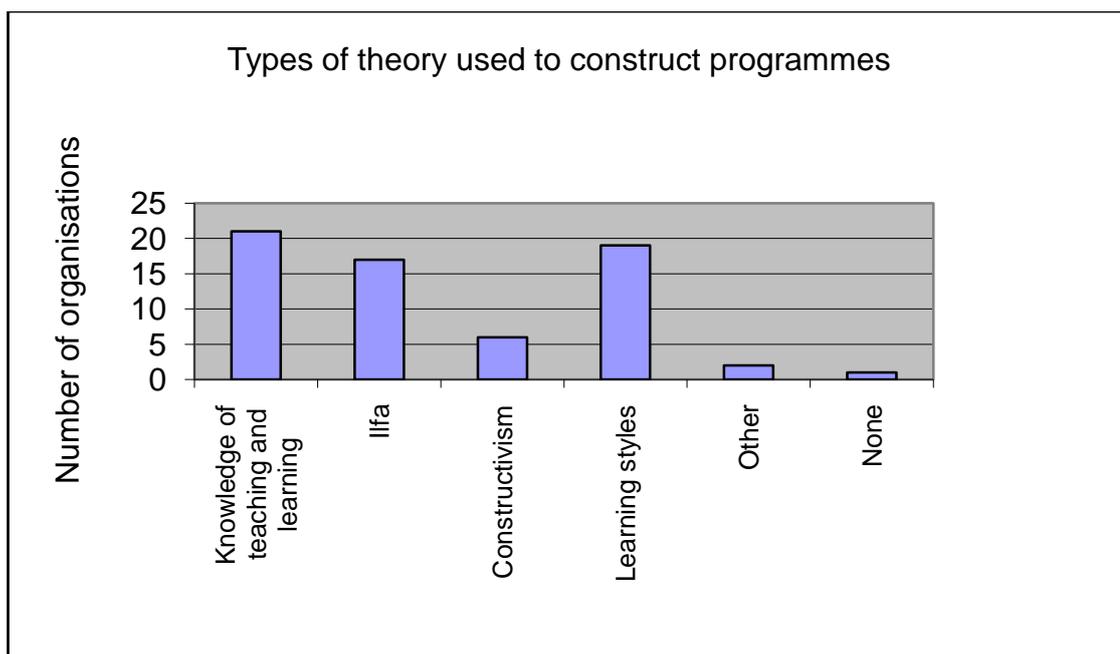
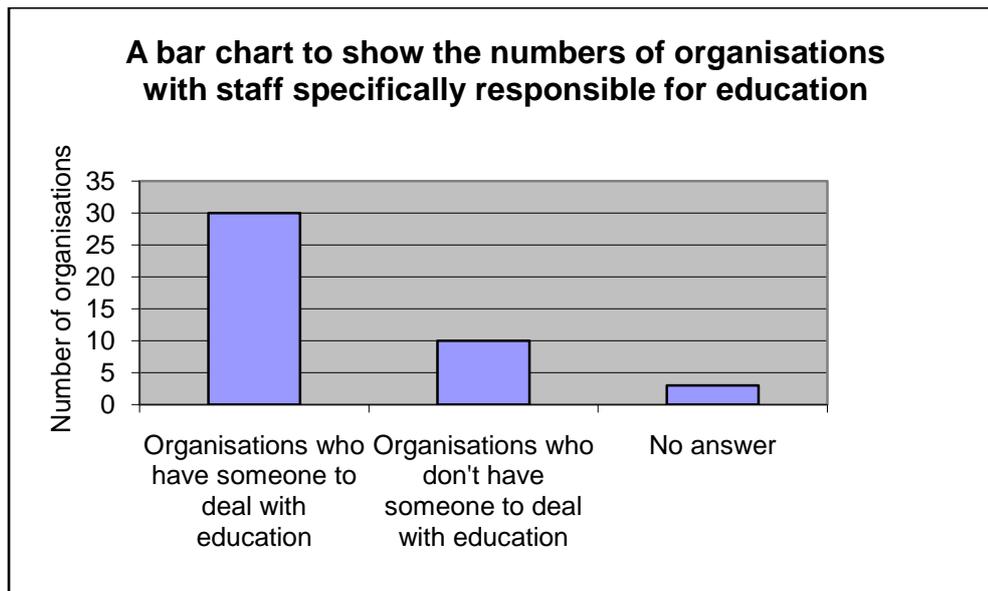
List of Organisations Who Responded to the Questionnaire

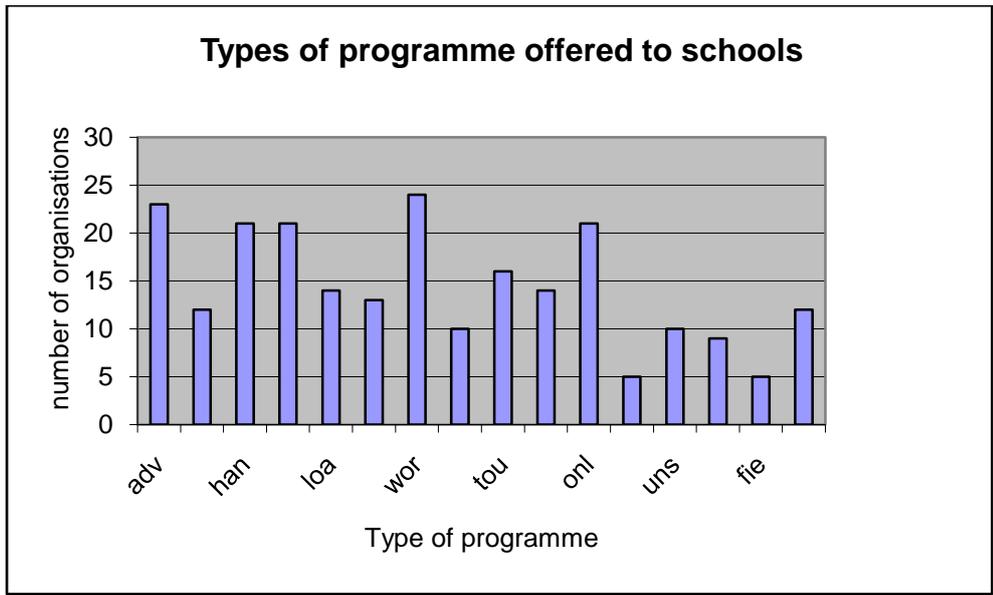
Name	Educational offer?
Albion Archaeology (part of Bedfordshire County Council)	Yes
Arbeia Roman Fort and Museum	Yes
Bede's World	Yes
Butser Ancient Farm	Yes
Canterbury Archaeological Trust	Yes
City of Lincoln Council Heritage Team	No
Colchester Museums	Yes
County Archaeological Service, Buckinghamshire County Council	Yes
Dartmoor National Park authority	Yes
Devon Historic Environment Service	No
English Heritage - Education Team (Central)	Yes
English Heritage - Fort Brockhurst	Yes
English Heritage - Education Team (North)	Yes
East Sussex Museums and Archaeology Project	Yes
Exmoor National Park Authority	Yes
Friends of Lincoln Archaeological Research and Education	No
Hampshire and Wight Trust for Maritime Archaeology	Yes
Herefordshire Heritage Services	Yes
Heritage Education at Stockport MBC	Yes
Heritage Education Trust	Yes
Heritage Enterprise - Surrey County Archaeological Unit	Yes
Historic Environment Service - Somerset County Council	Yes
Institute of Archaeology, UCL	Yes
Julian Walker	Yes
Lancashire County Council Archaeology Service	Yes
Museum of London	Yes
National Trust - Corfe Castle	Yes
Natural and Historic Environment Team Cheshire County Council	No
Norfolk Museums and Archaeological Service	Yes
Oxford Archaeology	No
Roman Baths Museum and Pump Room	Yes
Sites and Monuments Record, Herefordshire Archaeology	Yes

The Peat Moors Centre - Somerset County Council	Yes
South Gloucestershire Council	No
Suffolk County Council Archaeological Service	Yes
Sussex Archaeological Society - Fishbourne Roman Palace	Yes
The Cathedral Church of St Peter in Exeter	No
Waterman CPM	No
Weald and Downland Open Air Museum	Yes
Wessex Archaeology	Yes
West Berkshire Museum	Yes
West Yorkshire Archaeology Advisory Service	Yes
Wiltshire County Council	No
Wiltshire Heritage Museum	Yes
Winchester Museums Service	Yes
Worcestershire Historic Environment and Archaeology Service	Yes
Yorkshire Dales National Park Authority	Yes

Appendix E

Main Trends from the Questionnaire





Key	
Adv	advice for teachers
Hand	handling opportunities
Loa	Loan collections
Wor	Workshops
Tou	Tours
Onl	Online resources
Uns	Unstructured handling opportunities
Fie	Fieldwork opportunities

Appendix F

Summary Observation Notes

i. Corfe Castle, School 1

June 2007

25 Year 6 pupils.

Castle Tour

- The tour began on the bridge just outside the castle.
- The education officer began by introducing herself and saying the pupils could ask as many questions as they wanted but she may not be able to answer them all [educator as guide, not expert].
- The education officer prompted the pupils to use their prior knowledge and senses to answer questions which then developed their knowledge of the castle.
- Her first set of questions related to the landscape of the past and she asked the pupils to use their imaginations and think about what the bridge may have looked like in the past [concrete to abstract].
- The pupils were quite focussed and the education officer kept them moving [physical].
- The education officer introduced some mental arithmetic quite quickly 'if an archer could fire 20 arrows a minute, how long does it take to fire one arrow' [mathematical intelligence].
- The education officer encouraged the pupils to fit the function to the form when looking at the building e.g. the portcullis.

- She told the pupils and the murder holes and the teacher commented “the gorier the better”.
- She frequently called the pupils attention to different visual clues e.g. “have a look at these two holes” [visual].
- After about 10 minutes the education officer asked the pupils to sit down and recap what they had learnt so far. She initiated a discussion about the where the castle is sited and developed their answers through further questions [scaffolding].
- They spent about 10 minutes in this position in discussion, at the end of this time the education officer encouraged the pupils to discuss their ideas so far amongst themselves [group work].
- The pupils continued around the castle, with the education officer stopping them at various points and telling them stories from the castle’s history.
- About 40 minutes into the session the pupils became visibly restless.
- There was restoration work going on at the castle and the education officer described and explained this [opportunistic and flexible].
- The education officer also made a particular effort to connect the pupils to the castle through the story of a historical figure significant to the pupils. The class listened very intently at this point.
- The education officer pointed out the garderobe holes and asked the pupils to guess what they were. She then made the most of the children’s enjoyment of the yuck factor in revealing their purpose [engagement].
- She also told the story of King John’s oubliette and explained what the term means in French. She related the time frame of King John to the mythical figure of Robin Hood [chronology].
- She explained that archaeology was important in understanding the archaeological features of the castle [process].
- The education officer also discussed the differences between rich and poor people in the past [people in the past].
- She finished off with the ‘first’ story about Corfe and linked the legend of St Edward to place names in the local landscape.

- The group were visiting Corfe as part of a residential visit. [off curriculum].
- The teachers said that the session loosely fitted into their local study work in history and geography and that they had done some pre-visit work, particularly in relation to the personal connection between the school and the castle.
- When the group returned they would write up diaries of the visit.
- The lead teacher said the tour did meet their expectations. While preparing for the visit some of the children had wanted to know why some of the Castle was in ruins, but not all of it and this had been addressed on the tour.
- The School have been visiting the castle for many years (possibly more than 20).

ii. Corfe Castle, School 2

July 2007

26 Year 5 pupils

Classroom based study session (led by paid member of staff)

- The School were visiting as part of a residential visit and have already had a tour of the castle earlier in the week. [off curriculum]
- The education officer starts the session with questions to re-cap on earlier visit to the Castle. She is very encouraging and there are lots of hands up. [engaged].
- The education officer talked about the castle and its history, relating her introduction to artefacts in the room and the previous tour. [content].
- She explained tricky words, had an upbeat style and got the class to physically move frequently. [engaging]
- She discussed the arch building activity and encouraged the group to try different approaches. [looking at practical activities – using different approaches to complete].
- After 10 minutes, the education officer introduced the concepts of historical enquiry and archaeology and linked this to the to action stations around the room. [archaeology for inquiry - process].
- I noticed one child shuffling forward to listen more. Another child who was disciplined early on by the teachers looked very focussed [engaged].
- The education officer used the pictures on the wall to help illustrate her talk [visual stimulus].
- 20 minutes into the talk the subject of weapons were broached. The concept of replicas introduced [replicas].
- The teacher was drawn into the activity in picking children to take part in demonstrations. [teacher are engaged too].
- At just over 30 minutes in the pupils are a bit restless [losing concentration].
- After 35 minutes the class was split into two groups, one to stay in the room and do the activities and the other to go out into the gallery. [organised into smaller chunks of pupils].

- The arch building was a popular activity. 1 pupil really liked the model of the castle. [3d/spatial].
- The dressing up activity was the biggest focus. The teacher and helpers were engaged with this too. The education officer distributed herself well, but again through necessity mainly focused on the dressing up [enjoyment/immersive].
- I spoke to one of the teachers. The session was being fitted loosely into their history and geography work [loose fit to curriculum]. He said they did do some pre-visit work on the Swanage area and that the children were writing up diaries every day. The teacher emphasised the importance of other skills, such as team building and life skills that the pupils got from the visit. [other skills]
- In the gallery the children were mainly crowded around the audio-visual area.
- In the classroom, some of the children who had dressed up were smelling the herbs and playing with the food replicas [sensory/role-play].
- One pupil who was looking at the archaeology sorting activity asked me what a rim was. I had made a rule not to get involved in the activity, so I told him I could not tell him [more explanation].
- In the gallery there was lots of random button pressing, although some reflection too.
- One girl told me she did not like the picture of the servants feeding the king 'as it's cruel to have slaves' [empathy].
- At the end of the session, the education officer did a recap to ask them what they had learnt. Lots of facts about King John. [historical knowledge]

ii. School 3

July 2007

25 Year 6 pupils

Classroom based study session (led by paid member of staff)

- The introduction began in the classroom with the class seated.
- The pupils seemed quite restless and the education officer changed her pace to respond to the pupils.
- One child did not listen and partake in the discussion and instead began to work with the plate jigsaws, the educator did not intervene and allowed the pupil to do this.
- The educator posed mental arithmetic challenges to the pupils [mathematical skills]
- The pupil who was 'doing his own thing' was very pleased when he completed the activity.
- The educator kept moving her position around the room, so the pupils had to move too [kinaesthetic awareness].
- The education officer pointed to images on the wall to illustrate her introduction [visual].
- The education officer used archaeological terminology to explain the history of the Castle.
- She encouraged the pupils to use advanced vocabulary, e.g. vertebrae rather than backbones and used a scaffolding technique through questions to tease out answers [scaffolding].
- Related information about the past (e.g. food) by talking about similarities with modern times.
- One pupil asked "will we be able to find objects in the ground?"
- The final part of the introduction involved looking at and smelling herbs [sensory].
- The teacher informed me that the pupils were visiting as a day trip to coincide with a local history and geography study about settlement. They had completed quite a lot of pre-visit work, including looking at slides of the Castle and creating a time line for the Castle. They had been given a

particular question to focus their visit “why was the castle built there”.
When they return to school they will create a storyboard of their visit.

- After the introduction the group split into two. One half of the class stayed in the classroom to try on the costumes and use the interactive, the other half went into the gallery.
- The costumes were very popular.
- The pupils were evenly distributed across the gallery, but were not attracted to the AV area.
- Many of the girls were playing ‘maids’ [role-play, free exploration].
- One pupil said her favourite part was looking at the things that “light up”.
- Another pair of pupils said they particularly enjoyed making pomanders and dressing up.

iv. Corfe Castle, School 4

July 2007

26 Year 7 pupils

Classroom based study session (led by paid volunteer)

- The education officer started her introduction by putting the castle into its historical context and mentioned the well-known historical figures of King John and Robin Hood.
- The pupils were initially quite giggly but quickly settled down.
- The education officer drew attention to the pictures on the wall [visual stimulus].
- The education officer used a quite didactic style and did not really probe the pupils with questions.
- She talked about the changes to the building and used a fashion analogy. In fact she used an analogy technique to explain the history of the castle on several occasions (e.g. bread trenchers and pizza)
- The education officer explained the different activities around the room and asked for a volunteer to help demonstrate one activity [active].
- She frequently moved around the room so the pupils had to move to listen to her [physical].
- She handed out artefacts so pupils could feel the weight of them and herbs for pupils to smell [sensory experience].
- She discussed how you could work out what a pot was from a sherd by relating function to form and talked about modern science and distillation.

- The teacher said that the work loosely fits into Year 7 history work, but also settlement and geography and that it ties in with work done in May.

- After the introduction the class was split into three groups: one to try on the costumes, one to have a go at the interactive and puzzles in the classroom and one to go into the galleries.

- One of the teachers commented that it would have been useful if the artefact sorting activity had an identification sheet. It did, but had become detached.
- The arch building interactive was very popular.
- In the gallery the pupils seem to be enjoying pressing the buttons on the displays.
- I asked some of the pupils if they knew anything about the castle before they visited and they said no [no prior knowledge].
- One pupil said “I just want to dress up and play”.
- I asked another pupil what her favourite activity was and she was very enthusiastic about trying on the costumes.
- The AV area was conspicuously quiet.
- There were lots of incidences of pupils working together and helping each other with the interactive [group work].

v. Bede's World, School 5

September 2007

20 Year 4 pupils

Anglo-Saxon Life

- The education officer introduced the session in the Museum atrium and asked lots of questions [questions].
- She was very encouraging [encouraging].
- She introduced Bede and asked what the class thought the day would be like [prior understanding].
- I asked the teacher how they were fitting the visit to the curriculum: the school don't have to follow the National Curriculum but loosely use the QCA to structure their history studies. This visit is part of the pupils studies about the Anglo-Saxons.

- The pupils sit down in the classroom.

- The education officer asks questions and gives clues [scaffolding].

- The education officer introduces archaeology by asking how we know about the Saxons. [big concept].

- Next part of the session involves dressing up two volunteers as an Anglo-Saxon boy and girl (lots of the kids want to be volunteers).
- The education officer introduces the concept of dying and illustrates her point using a jar of Madder (plant dye) [visual cues].
- The education officer asks the children to look for differences between the Saxon boy and girl dress [visual skills].
- The class spend time thinking about the materials the Saxon kits are made from.
- The girl Saxon has a purse with some 'mystery' items in it.

- One of the items included a key – the education officer introduces grave goods and gender differences by using this prop. [concrete to abstract] [people in the past].
 - The education officer also produces a drop spindle and questions the pupils about it – she is looking for ‘right’ answers to her questions.
 - She mentioned lanolin to keep the cloak water proof and mentioned smell, but didn’t actually use the sense of smell.
 - One child asked about the boy Saxon’s hat. Claire explained that archaeologists don’t often find clothes because they rot, but in some muddy places clothes survive and this is why they think the hat looks the way it does. [archaeologist as expert].
 - There was no written work in the classroom session.
-
- After approx 30 minutes the class moves outside [non-traditional settings].
 - They start by thinking about the buildings – how were they made/what are they made of?
 - They look at Oxen and mention the size of the Oxen – Saxon oxen were smaller than the oxen of today. [concrete to abstract]
-
- At this point I ask the teacher what she wants to get out of the session. The teacher wants a hands-on experience from the visit to reinforce what the pupils have already learnt in class. It’s an annual visit because the school like Bede’s world.
-
- While walking around the farm the class are asked to think about what ‘jobs’ the animals do.
 - The class looked at the vegetable patch and are asked why there are no potatoes.
 - Outside the classroom the education officer is more amenable to a variety of answers – not so much so looking for a ‘right’ answer, instead trying to instigate thinking and interpretation. For example she asks “What’s the pond for” and accepts a range of answers, saying that it has a range of possible uses. [different interpretations (outside, but not inside)].

- The class enter the Sunken Featured Building (SFB). The children asked if the building is from the Saxon period and the education officer explains that it is a replica and what that means. She explains how archaeologists build up their ideas about buildings of the past.
- The education officer closed the door and asked what it is like (DARK). Using senses, [experiential].
- The education officer explained possible use of the building through what we could experience. It's dark and cool, so probably a good store.
- She also explained that the bottom floods when it rains heavily, so they have learnt a lesson – SFB's probably wouldn't have been built at the bottom of hills.
- The class move into the Anglo-Saxon farmhouse and are encouraged to look around [visual].
- Throughout the visit the education officer encourages linguistic skills by encouraging pupils to offer extended vocabulary. An example from the farmhouse comes when she explains that in the evenings the Saxons challenged each other with little puzzles beginning with the letter 'r' – prompting for the word riddles. [different learning behaviours].
- The education officer challenged the pupils with some riddles [logical intelligence].
- She asks the pupils to rub their hands together to demonstrate friction [kinaesthetic].
- In the farmhouse lots of reinforcement from the classroom session – i.e. what would the Saxon's sleep on – goat skin (mentioned earlier).
- Towards the end of the visit the pupils are given free time to look around the house, where the use kinaesthetic skills (touching things), interpersonal skills.
- The pupils are asked to spot the anachronism (fire extinguisher)
- The pupils are asked to spot where the candles would be and how they know (wax on the shelves).

- I asked the teacher if there will be follow up work: she said they will write about the visit later and do riddles for homework. They will work on the Anglo-Saxons until half term.

vi. The Peat Moors Centre School 6

April 2008

10 Reception to Year 2 pupils

Iron Age Life

- The education officer is in role as The education officer. He begins by saying that the Iron Age was over 2000 years ago.
- He then runs through a quick safety talk (fire evacuation etc).
- The class enter one of the roundhouses.
- The education officer explains it's quite dark at first but then our eyes get used to the darkness [experiential].
- The education officer says welcome to my home and says it's probably different to the pupils' homes. He then asked what are the differences between his home and their homes. [familiar to less familiar]
- He uses this discussion to explain different aspects of Iron Age life, using the house to explain his answers.
- He is looking for one particular answer and gives a clue to prompt the pupils (something to do with the size) [scaffolding].
- Nearly all the pupils participated in this discussion.

- The pupils then make some bread.
- First the education officer shows the pupils how to grind wheat using a saddle quern stone and then describes a rotary quern.
- The education officer gets volunteers to have a go – one of the children explains it's quite heavy. [physical learning behaviour]
- Another group of pupils have a go with the saddle quern and they all swap to get a go [working as a group to take turns].
- The education officer collects up flour and mixes a bit of sheep milk with it and makes a little loaf which he sets at the side of the fire to cook.
- The pupils watch quietly. [engaged]
- One pupil asks why the education officer uses his hands to make bread. The class teacher says why do you think and another pupils says no

spoons. The education officer shows he does have a spoon, but explains it's really for stews.

- The context of the house leads to lots of questions from the pupils and discussion and the education officer is happy for the environment to stimulate the discussion.
- After just under an hour the education officer leads the pupils outside to the construction area where upright posts (to wattle) and wattle to daub are already set up. There is a ring beam set on top of the posts so that the pupils can erect rafters too.[group work – physical, experiential]
- The education officer explains the first thing to do is to make the walls. The education officer demonstrates weaving method.
- I took this opportunity to talk to the teacher and ask how the visit is being fitted into school studies. She said she was fitting into three topics: houses and homes; materials; and ourselves and the world around us.
- One pupil will not speak and the teacher says she will not speak in front of strangers or out of class. The education officer is very good with her gently encouraging her throughout the session and she does seem to warm slightly as time goes on.
- After the wattling exercise the education officer demonstrates daubing. The pupils all thought daub was gross and disgusting but still seemed to enjoy themselves: they laughed a lot and shouted out 'it's fun' [enjoyment].
- I asked some pupils what they preferred, making bread or daubing. They all said making bread, but shrieks of laughter suggested otherwise.
- A couple of pupils found a pile of old flour and were fascinated by it and compared it with daub [active exploration, pupils interests].
- The education officer showed the pupils a three part hand cleaning method at the end of the daubing which involved freezing water.

- Next the pupils worked together to erect the rafters. One of the rafters broke during this activity, so it could not be finished.
- The education officer then shows the pupils how to make pinch pots, which they were allowed to take home with them.
- The final activity is coin making. All the pupils were able to make a coin and got very excited by this.

vii. The Peat Moors Centre School 7

May 2008

34 Year 4 pupils

Iron Age Life and Archaeology

- The education officer starts with a safety talk.
- The class are led into the main round house. The education officer introduces the house as a home.
- The education officer explains that all the houses at the Peat Moors Centre are based on the houses from the Glastonbury Lake Village. '2000 years ago most houses would be like this', but this is a reconstruction not an actual 2000 year old house. [factual approach]
- He says it is very wet at Peat Moors and wet ground is good for preserving wooden things that would not normally last.
- I notice that the education officer is using quite a different tone from the one he used with the last group I watched as these children are quite a bit older. [flexible style]
- The education officer asks the group what the differences are between the roundhouse and modern houses. [comparisons] and this stimulates discussion about life in the Iron Age.
- One pupil asks what the rotary quern is. The education officer explains what it is for and demonstrates it saying it's a great improvement on the saddle quern. [pupil input].
- The education officer asks if there are any other questions: [pupil input]
- The education officer explains that there are some nettles stewing on the fire which he is going to use to dye cloth.

- Next the class moves outside to have a go at construction work.
- The education officer explains and demonstrates and then the class is split into groups to have a go. [group work]

- I take this opportunity to speak to the teacher. She explains that she teaches a two year rolling programme between Yrs 3 and 4 – this group is just year 4 – they have been studying the Romans and this trip fits into that but loosely – not in the same way as a day trip – i.e. no formal pre-visit and follow up work [it's a jolly].
- She says the work also fits into the wider curriculum- making links, being historians, asking questions, how why etc
- She has been visiting Peat Moors for 7 or 8 years very happy with the trip because it's not rushed, The education officer has time to answer the questions and there are no other members of the public about which is less stressful for the teachers.
- After the construction activities – The education officer explains the hand cleaning process.
- I asked some pupils what they enjoyed more, wattling or daubing – nearly all said daubing- they were really enjoying the outdoor experience. Teachers also engaged and asking probing questions. [liked hands-on, involved activities]
- The next task is to put the roof on using the rafters.
- After roof goes up the education officer encourages the class to give themselves a round of applause. [enjoyment and satisfaction]
- Next comes the coin making activity. The education officer uses the word coin dye and explains it and the development of currency.
- The class stop for lunch at after about 2 hours.
- After lunch the class take part in the archaeological excavation activity.
 - The education officer asks how we know about the IA seeing as there is no-one about from 2000 years ago to tell us. Some pupils offer ideas, such as wrote diaries.

- The education officer asks if anyone knows the difference between history and prehistory? The education officer explains and says ‘so if we have no writing from pre-history how do we know about it?’ The pupils answer that we use artefacts [scaffolding].
- The education officer explains how wood is normally rare, so it is treasure really and says it sometimes survives in this area.
- The education officer instructs on digging techniques and safety. The pupils spread out in the large excavation pit (filled with finds from spoil heaps, other bits and some sweet track like wood).
- I asked several children if they liked digging. They all answered that they did. One pupil said I like it “because I like digging for treasure’. I ask what treasure is and he replied “things that have been buried for thousands and thousands of years” [archaeological view of treasure].
- I asked another child if they would like to dig for a job: “yes, it’s interesting, you never know what you’re going to find”.
- The digging activity lasted just under an hour. The pupils clearly enjoyed it and were keen to show me and the other adults the things they had found [enjoyment].
- The education officer puts the finds in categories and talks about them with reference to archaeological methods and techniques [process]

viii. The Peat Moors Centre, School 8

June 2008

33 Year 4 pupils

Iron Age Life and Archaeology

- The education officer introduces the session and explains what will happen.
- He also gave the pupils a quick health and safety talk.

- While I administered the assessments he went away and came back in role as an Iron Age man.
- He invited the pupils into his 'house'
- The class sat on the benches and he education officer used the bellows to make the fire burn; I heard whispers about why the bellows are used – the class are making lots of connections. [experience to inspire]
- The education officer then introduces his house. He talks about eyes getting used to the dark and starts talking about the difference between his and modern homes. [exploring unfamiliar through familiar]
- The class are very quiet and focussed. The education officer probes and asks questions. The pupils are good at making connections so the education officer extends the discussion further, e.g. asking about the Ventura effect.
- Throughout the discussion about the differences between the Iron Age house and modern houses the education officer frequently uses analogies.
- The discussion changes course to cover Celtic warfare.
- The pupils are quite engaged [lots of hands going up].
- The environment encourages the pupils to ask questions e.g. one pupil points to a coracle and asks what it is [immersive].
- By 11am the pupils are still asking lots of questions and are very focussed.

- It was clear from the teachers contributions to the discussion that the pupils had already discussed the Iron Age before visiting.
- The education officer introduces the pupils to a wider context about Iron Age life, e.g. how the Celts kept their histories.
- One pupil asks, “can I ask a different sort of question”. The education officer answers “ask me anything you like” [flexibility].
- At about 11.10 the pupils begin to get restless.
- One child finds a spider and the education officer suggests eating spiders there is a collective groan from class.
- They continue the discussion for a few minutes more and then move outside to the construction activities.
- The education officer demonstrates the activities and then splits the pupils into teams so they can have a go at the activities [team work].
- The pupils are really excited about daubing. [enjoyment]
- I asked one boy, “what do you think of that [daubing]”. He answered, “Gross”
- The wattling group working in smaller teams than the daubing group.
- All the pupils seemed to be enjoying themselves and were chattering and smiling.
- I asked one pupil what they had learnt about with respect to the Iron Age and they answered that they had learned about wars.
- The teacher said they were linking the visit to their study of the Celts and Romans and linking it topic work about geography and art
- I asked a girl if she knew about the Celts and she answered “Yep, I know about roundhouses and things”.
- The teacher said she had visited the Peat Moors Centre on numerous previous occasions and really liked it. In the past she has found the pupils enjoy the archaeological dig most.
- After all the pupils have had a go at wattling and daubing, they move on to erecting the rafters as a whole group [group work].
- The education officer uses his role as an Iron Age man to instruct the pupils on the Celtic way of things and superstition through his instructions for this activity.

- The education officer brings a pan full of nettles out and dyes some cloth. He adds alum and explains the scientific names for the ingredients and process of the activity [experiments and scientific language].
- At 12.15 some of the pupils say they are starting to feel hungry.
- The education officer discusses bread making with the pupils and passes around some wheat. The pupils are all able to have a turn at grinding wheat with a quern.
- The pupils are highly focussed, quiet and attentive during this discussion, demonstration and activity.
- While the pupils are taking their turns with the quern, the education officer strikes some coins from a dye and talks about his personal ornamentation.
- The pupils then move into the largest round house and the education officer demonstrates metal casting (casting a bracelet). [experimentation].
- The education officer poured metal into a mould and it came out of the other end.
- One pupil suggests putting clay on the bottom of the mould, and the education officer follows this suggestion [not expert, listening].
- The education officer starts to explain the science of metal cooling, likening it to crystals of ice forming. [scientific language].
- By 1.20 the pupils are very restless and the education officer breaks for lunch.
- After lunch the education officer comes back as himself.
- He explains the archaeology activity and discusses how we know about life 2000 years ago. [archaeology as process]
- He says that archaeology is important for finding out about the Celts and prehistory, but also useful for finding out about the lives of ordinary people in hist. [ordinary people, people in the past]
- The education officer gives a safety talk on digging and instructs the pupils.
- He explains that wet ground is good for preserving wood and in a way is more valuable than gold.

- I ask one pupil what they have enjoyed the most and they said the archaeological dig. I asked them why and they said because they like getting dirty. I probed as to why they preferred the dig to the daubing and they said because they found a centipede in the daub pit.
- Another pupil said they liked the daubing best, because it was dirty, a third pupil, replied everything and a fourth said making the bracelet.
- The pupils were keen to show their 'finds' and there was a lot of discussion about the artefacts.
- At the end of the activity the education officer grouped the artefacts by material and discussed them.
- Several of the pupils asked if the excavation was staged and each time the education officer replied that it was not [untruthful].
- The workshop finished by the pupils taking a walk around the reconstruction of the Sweet Track.

ix Hampshire and Wight Trust for Maritime Archaeology, School 9
June 2008

33 Year 3 pupils

Recording Hulks at Forton Lake

Group 1

- The pupils are given hi-vis vests and split into two smaller groups, each led by a HWTMA education officer. I follow one education officer for one group and one for the other.
- The pupils were not told anything about the visit before arriving, except that they would get muddy.
- There is a short walk to the site which involves ducking under fences and going through a boat yard.
- The education officer introduces the workshop by asking the pupils what archaeology is and what maritime means.
- She describes the formation of the Solent and asks why archaeologists go under water. She explains maritime archaeologists are interested in the foreshore too.
- She says there is a special name for a wreck on the foreshore – a hulk.
- The education officer asks the pupils to count the hulks and they give lots of different answers, she says it's hard to say, but at least 16 or 17.
- She then explains the activities: plan sketch – birds eye view using the worksheet.
- I took this opportunity to ask the teacher how she was fitting this trip into the curriculum and she said she was not because they are studying geography this term, not history. I suggest this trip might be good in geography, plan work etc. Teacher replies, "yeah, we can bring it in then. We're doing the local area so it could fit into that".
- After a few minutes of planning the education officer gets the pupils together and gets them to hold their clipboards up.

- The education officer asks another question “what are you standing on? Recognise any shapes?”
 - The pupils offer a range of answers.
 - The education officer probes the pupils to get the ‘right’ answer. Someone eventually says cargo [scaffolding].
 - She explains that they can see the remains of a paint cargo, but that after time its rotted away a bit.
-
- The next activity is a section sketch. The education officer explains what this is and how to do the activity.
 - She asks the pupils to add measurements to the drawings
 - The pupils work together to measure the length of the hulk [group work].
 - Then extra tape measures are given out so that the pupils can measure lots of different parts of the hulk [active exploration].
 - The education officer makes sure everyone has measured the length and width.
-
- The next activity is the site record sheet and the education officer explains the importance of recording and talks through the record.
-
- There is then a discussion about materials. The education officer asks if everyone agrees and how they know what the materials are. They talk through the changes that occur in different metals over time [discussion].
 - They also discuss the age of the hulks.
-
- The next activity involves making an interpretation and the education officer says that the pupils can either write story or draw a picture. The pupils are given two minutes to do this individually.
 - Then the pupils look around other hulk sites.

- I asked some of the pupils if they are enjoying themselves and they said they did. They all liked different activities.
- At the end of the session the education officer gets out the planning frame and explains how it's used, although there is not time to use it.

Group 2

- The format is broadly the same as for Group 1.
- The education officer says that she thinks the pupils are lucky to live near the hulk site.
- The education officer asks if the pupils have heard of the Second World War and many pupils raise their hands.
- The education officer points to a landing craft and asks the pupils if they know what it is and then she explains.
- The first activity this time is planning [process].
- The education officer asks who is good at drawing and says it does not matter as they can use the planning frames to help them. She then explains how to use the planning frame.
- The pupils have a go at the activity.
- She then asks the pupils if they know what the boat they are standing on is.
- One pupils suggests an old ferry.
- The education officer shows the pupils some old photos of the hulks.
- She explains that they are on an archaeological site and explains the plan view activity.
- The pupils have a go at the activity.
- The education officer then asks the pupils to look for circles and explains that they are the remains of the paint cargo.

- The education officer explains that as well as the plan view it is useful to draw a side view, which 'we' archaeologists call a section or elevation drawing [archaeologist as expert].
- The pupils have a go at making a section drawing.
- The pupils then measure different parts of the hulk as the last activity.

x. Wiltshire Heritage Museum, School 10

February 2009

30 Year 3 and 4 pupils

Artist Led Workshop at Avebury

- The teacher stated that the pupils were doing a local study – particularly looking at stone circles and crop marks, landscapes etc, so this opportunity was timely.
- The artist introduces himself by his first name and explains that he is a professional artist [expert].
- He explains what he does: drawing ancient sites.
- He gives each pupil a large drawing board which has paper taped to it and asks them to carry them sensibly.
- The artist explains that the paper on the boards is very special. I see 2 girls look at each other and say ‘wow’ [impressed/privileged].
- The artist leads the class from the car park to the stone circle.
- The artist talks about his life as an artist and talks at some length [teacher led].
- He then talks about the difficulties of drawing in the rain.
- He tells lots of stories about his childhood and developing as an artist. He asks if anyone has painted with their fingers – lots of hands go up.
- After about 10 minutes of talking the kids start to look slightly distracted.
- The artist then shows everyone the ‘beginners’ pencils and explains what they are.
- He then demonstrates the technique everyone’s going to use, scribbling [process].
- He explains what’s special about the paper; it is acid free. The artist asks is anyone knows what that means. He explains by using the example of how old newspaper goes yellow and says that it due to the acid in it, but that won’t happen to this paper.
- Having scribbled on the paper the artist then uses a piece of paper to smudge the pencil and a plastic rubber to draw through the smudge. He

reiterates that the good quality of the paper means it works effectively when rubbing the lead.

- The pupils crowd closer to see what's happening.
- The artist has mainly spoken about his life rather than Avebury, but after demonstrating the drawing technique he says the stones/the landscape must be in the picture. He also says you must face/look at what you're drawing.

- The pupils start their scribbling [skills].

- After about 10 minutes the artist gets everyone to step back and look at each other's scribbles and notice how everyone scribbles differently. [visual skills]

- I ask the pupils if they enjoy the scribbling and on the whole they say yes. Some of the pupils say they don't like drawing but they do like scribbling.
- The artist explains to me that this activity is designed to encourage the pupils to 'loosen up'.
- The pupils are then instructed to blend the scribbles using tissue.

- After about 10 minutes the pupils are given rubbers and told to pick up their boards. They move to a position in front of the stones and told they have about 30 minutes to do their drawings.
- They are told to pick something to draw and that they can draw with the rubber and rub out/re-blend with the tissue.
- The artist instructs the pupils to draw their own and work in silence [opposite of group work].
- He asked if there were any questions – none. [up until now questions haven't really been encouraged so it's not much of a surprise].
- After 15-20 minutes work the artist called everyone's attention and gave further instructions to refine the technique and make the drawings stand out.

- The artist is around during the drawing, but only occasionally intervening and giving suggestions – largely leaving the kids to work [teacher as guide in this sense].
- The last bit of the workshop was creating an impromptu exhibition – all the pupils are asked to form a circle to allow everyone to look at everyone else's work.
- At this point the artist talks explicitly about stone circles; he says that one theory about stone circles is that they were used to amplify the sound in the middle and that the boards are doing that and acting as a stone circle.
- The artist goes around pointing to different works, pointing bits out. He says he's not going to do everyone's but then says why not and looks at everyone's work. He points things out and makes encouraging comments.

xi. Wiltshire Heritage Museum, School 11

March 2009

25 Year 3-6 pupils

Artist led museum workshop

The pupils had already taken part in the Avebury artist led workshop.

- The workshop starts in the Museum lecture room.
- The artist introduces the workshop and explains that it is going to be in two parts.
- He explains that the pupils will draw artefacts from the collection and emphasises the importance of the collection [data].
- Then the artist shows the pupils some of his own work and talks about the works [his experience - expert].
- He explains that atmospheric conditions in a landscape affect the tone on the drawings and then asks the pupils what he meant by acid-free paper [testing from before].
- He explains the next step in his work, which is to go on and do acid etching.
- The pupils are very focussed, looking at The artist and putting their hands up.
- The artist holds an example of the pupils work from the previous week up and asks the rest of the class what advice the class could give to the artist to make it even better [peer evaluation].
- The artist gives advice on techniques and relates techniques to feelings and energy.
- I asked a couple of the pupils if they had used the technique before, they said no but they would use it again.
- After about 30 minutes the pupils refine their drawings.
- I asked one child what they had enjoyed the best and they replied the drawing.

- I asked one child if they had been to Avebury before. They had but they had never done anything like this before.
 - The teacher mentioned that the children spend a morning a week doing a child centred learning project – “doing what they like”. A couple of boys are doing a project on the Romans and want to draw Roman artefacts. [child centred learning]
 - The teacher stated that these workshops were not related to their curriculum work in anyway, partly because they only knew they were doing them a couple of days before. However, the school in general is open to taking up opportunities.
 - I asked the teacher what she thought the value of the sessions was and she replied working with an artist and working outside.
-
- After 20 minutes the artist explains the white bits of the drawings have become smudged and instructs the pupils to spend the last 10 minutes cleaning up the white bits with a rubber [teacher led].
 - At the end of this drawing activity the pupils are told to stand up and make a circle with their drawings so that they can all look at each other’s work.
 - One pupil told me she felt more confident about drawing now [confidence building].
 - The artist explained he thought recently that all the stones circles and burial chambers had been discovered but then he realised there were some that remained undiscovered.
 - Then the artist says that the class will move into the Neolithic galleries and should choose an object to draw.
 - The class proceeded into the galleries and walked around looking at objects and then went back to the lecture theatre to discuss what they had picked.
 - The pupils then picked up some drawing boards and went back into the gallery to draw.

- I asked a few pupils why they had chosen particular object. Their reasons were mostly based around the—aesthetic qualities of the objects but some choices were based on the stories behind the objects. E.G. “I chose [the gold bangle] because it’s pretty and I didn’t know they had gold bangles in the past” [free choice].
- I then asked some pupils if they preferred drawing in the museum or outside. They answered that they either preferred being in the museum or couldn’t choose. No-one preferred being outside. Their reasons varied, but were mainly due to the choice of artefacts and in one case because they had never been to a museum before [new experience].
- I asked some pupils if they would visit the museum again and they all said yes. I also asked them if they would visit Avebury again and they said yes.
- After 20 minutes of drawing in the galleries the pupils moved back into the lecture theatre where the artist finished the session by encouraging the pupils to exhibit their work.

xii. Wiltshire Heritage Museum, School 12

May 2009

31 Year 5 and 6 pupils.

Artefact handling session

- The education officer did not have a formal plan for the session but based the session on a previous discussion with the teachers where she asked them what their requirements were.
- The education officer introduces herself by her first name.
- She explains what will happen [setting out what will happen] and asks what they already know about the Victorians [understanding prior knowledge].
- Some pupils seem to know something about the Victorians, but most don't.
- She explains that she's going to show them some real artefacts and some replicas and asks if they know what replicas are.
- The education officer asks lots of questions to lead the pupils to defined answers [scaffolding].
- The pupils are very focussed, all looking and very quiet but keen to answer; lots of hands up.
- The education officer holds up artefacts to illustrate her talk [visual stimulus].
- The education officer shows the pupils a homemade rag rug, explains it's a replica and how it was made.
- There is lots of talk about the lives of rich and poor – contrasts. [people in the past]
- The education officer shows the pupils a moustache cup to relate the form of the artefact to the life of the person [people in the past].
- The education officer talks about materials – what are the artefact made of and what would we use instead today [comparisons].
- She talks about hand painted plates and explains they had been painted by girls the same age as the pupils. This stimulates a lot of discussion

amongst the pupils e.g. 'that'd be boring', 'what if they did it wrong' [people in the past].

- The education officer then discusses the topic 'children at work' and asks what kind of jobs did children do? The pupils are very keen to answer and attentive to the education officer.
- One child asks the education officer a question about the way the glass lemonade bottle looks, she replies that she doesn't know and adds 'they're not all like this', but doesn't take this line of questioning any further.
- The structure of the session is very logical and focuses on home life.
- After about 25 minutes the education officer passes artefacts around for the pupils to handle.
- She encourages the pupils to talk to each other but doesn't give further instructions for looking at them. [active exploration, discussion].
- There is artefact focused chatter while handling.
- Some pupils role-play with artefacts (e.g. pretending to drink from moustache cup, using rolling pin etc)
- One girl matched the flour shaker and rolling pin and used them together. [using different learning behaviours]
- One pupils in particular smells all the things he's given.
- The pupils share artefacts really well.
- After about 10 minutes of handling the education officer takes the items back again and explains what will happen next.
- The education officer now establishes the context for the Victorian i.e. where they were in time, who they are compared to 'us'.
- The education officer says they pupils will now have the opportunity to handle Victorian personal items.

- It becomes clear that the education officer is not afraid to say 'I don't know or I'm not sure' [educator as guide].
 - The education officer supports the interpretation of the washing artefacts with contemporary photos.
 - She explains that differently shaped irons were used for ironing different garments.
-
- After about 50 minutes more artefacts are passed around.
-
- The teacher says they are using the session as stimulation and they will be going on to do independent research projects.
 - When the class get back they'll brainstorm what they learnt and what they want to find out next. In particular what skills needed to find out what they need to know.
 - The teacher and the teaching assistant say the class has behaved differently to normal, very focussed when they are normally very chatty. The teacher says there are lots of kinaesthetic learners in the class and they were well engaged [different learning behaviours].

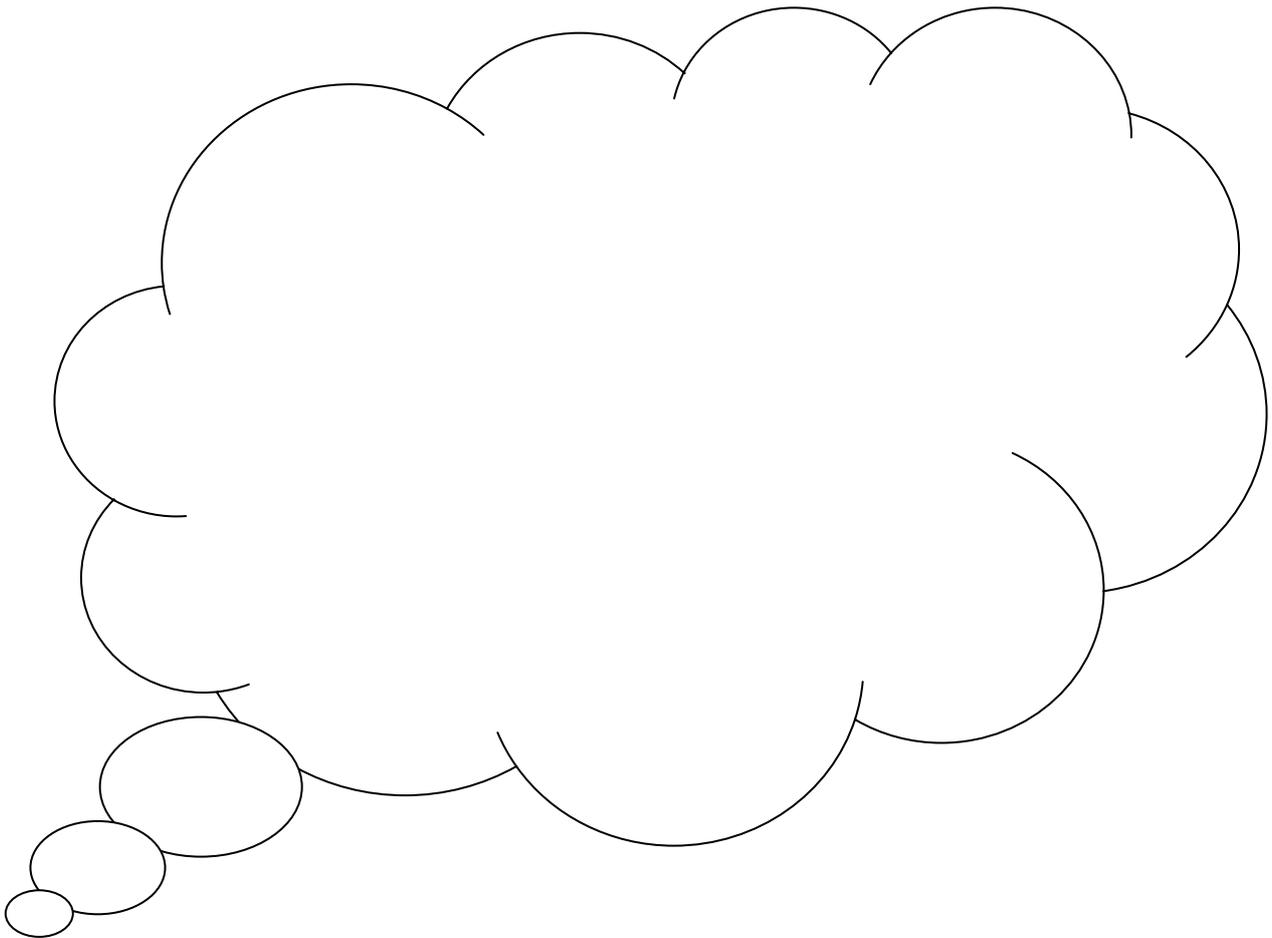
Appendix G

Generic Learning Outcome Assessment and Creativity

Assessment Proformas

i. GLO assessment proforma

Initials..... Date.....

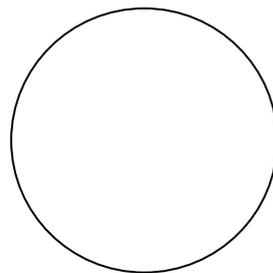
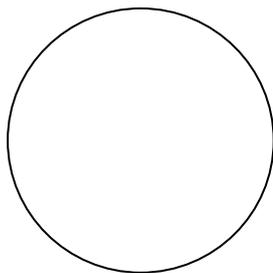
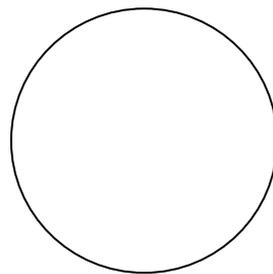
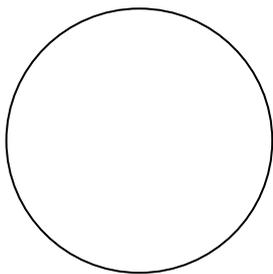
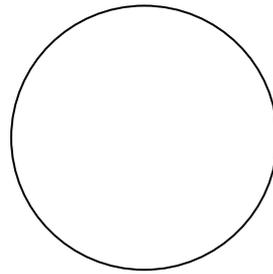
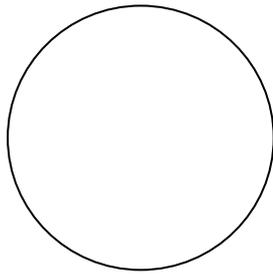
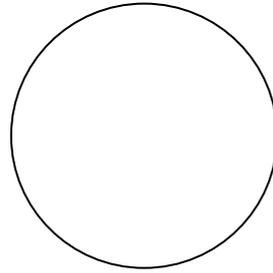
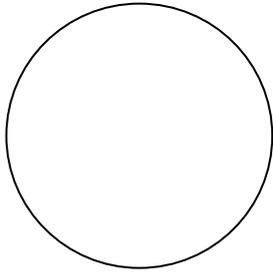


What amazed me most was. . .

ii. Creativity assessment proformas – circles.

Initials.....

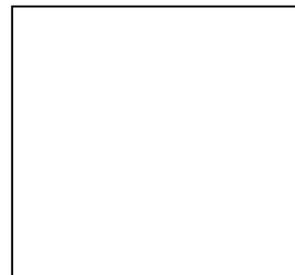
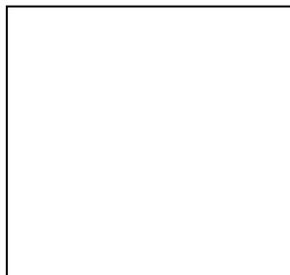
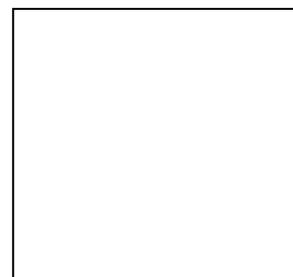
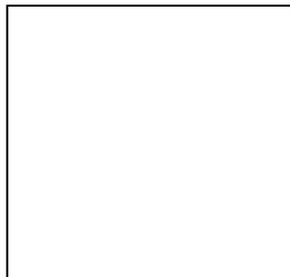
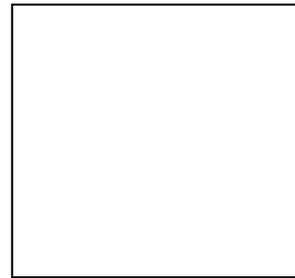
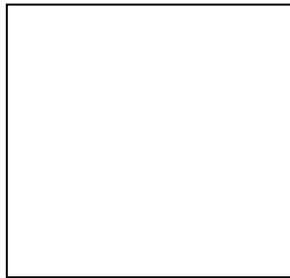
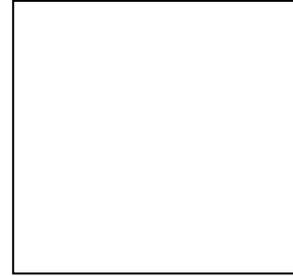
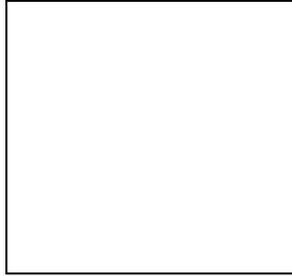
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iii. Creativity assessment proformas - squares

Initials.....

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Appendix H

Data Table for Each School by Case

i. Corfe Castle: School 1

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data	O; G
Post-processual archaeology	A focus on agency and the role of the individual in the past	O; G
	Opportunities to use empathy to develop ideas about the past	O
Constructivism	Early opportunities to identify pupils' prior constructions	O
Social Constructivism and socio-cultural perspectives	Group discussion	O
	Use of active questioning and role-play initiated by the archaeological educator	O
	A focus on big concepts such as change or context.	O
	Using language to provoke questions and further discussion	G
	Site activities and programmes in an authentic context.	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	G
Learning Styles Theory	Visual exploration	O
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O
	Opportunities for reflection	O
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Considering other peoples' feelings and working with others	O
	Using the natural environment and working with animals.	O
Didactic	Focus on facts and figures	O
	Little room for pupil input	O
	A narrative structure.	O; G

Typological category	Content based site tour
Number of positive changes in creativity score/total	28%
Activity behaviour and progression (percentage)	0
Enjoyment, inspiration and creativity (percentage)	38
Skills (percentage)	0
Knowledge and understanding (percentage)	59
Attitudes and values (percentage)	3
Archaeological educator with an archaeology background	No
Fit to curriculum	Loose

ii. Corfe Castle: School 2

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data	O; G
	An emphasis on the scientific method	O
Post-processual archaeology	A focus on agency and the role of the individual	G
	Opportunities to use empathy	O
	Consideration of the different values	O; G
Constructivism	Opportunities to create cognitive dissonance and achieve cognitive equilibrium.	G
	Free choice environment which enables pupils to choose what they engage with and how.	O
Social Constructivism and socio-cultural perspectives	Use of active questioning and role-play initiated by the archaeological educator	O
	A problem-solving approach as opposed to discovery learning	O
	A focus on big concepts such as change or context.	O; G
ELT	Experience and reflection	O; G
Learning Styles Theory	Visual exploration	O
	Auditory information	O; G
	Tactile and physical exploration	O
	Opportunities for experience	O
	Opportunities for reflection	O
	Problem solving activities	O
	Experimentation	G
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Considering other peoples' feelings and working with others	O; G
	Working alone and considering one's own response	O
Didactic	Lecture style	O
	Focus on facts and figures	O; G
	A narrative structure.	O
Typological category		Process driven working with artefacts
Number of positive changes in creativity score/total		62.5%
Activity behaviour and progression (percentage)		10%
Enjoyment, inspiration and creativity (percentage)		47%
Skills (percentage)		3%
Knowledge and understanding (percentage)		27%
Attitudes and values (percentage)		13%
Archaeological educator with an archaeology background		No
Fit to curriculum		History

iii. Corfe Castle: School 3

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data	O; G
	An emphasis on the scientific method	O
Post-processual archaeology	A focus on agency and the role of the individual in the past	G
	Opportunities to use empathy	G
Constructivism	Cognitive dissonance and assimilation	G
	Free choice environment which enables pupils to choose what they engage with and how.	O; G
Social Constructivism and socio-cultural perspectives	Use of active questioning and role-play initiated by the archaeological educator	O
	A problem-solving approach as opposed to discovery learning	O
	A focus on big concepts such as change or context.	O; G
	Using language to provoke questions and further discussion	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O; G
Learning Styles Theory	Visual exploration	O; G
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O
	Opportunities for reflection	O
	Problem solving activities	O
Multiple Intelligence Theory	Using words and language	O; G
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Considering other peoples' feelings and working with others	O; G
	Working alone and considering one's own response	O
Didactic	Lecture style	O
	Focus on facts and figures	O
	A narrative structure.	O
Typological category		Content focussed working with artefacts
Number of positive changes in creativity score/total		65%
Activity behaviour and progression		3%
Enjoyment, inspiration and creativity		33%
Skills		5%
Knowledge and understanding		54%
Attitudes and values		5%
Archaeological educator with an archaeology background		No
Fit to curriculum		Loose

iv. Corfe Castle: School 4

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data	O; G
	An emphasis on the scientific method	O
Post-processual archaeology	A focus on agency and the role of the individual in the past	G
	Opportunities to use empathy to develop ideas about the past	G
Constructivism	Opportunities to create cognitive dissonance and achieve cognitive equilibrium.	G
	Free choice environment which enables pupils to choose what they engage with and how.	O
Social Constructivism and socio-cultural perspectives	A problem-solving approach as opposed to discovery learning	O
	A focus on big concepts such as change or context.	O
	Using language to provoke questions and further discussion	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O; G
Learning Styles Theory	Visual exploration	O; G
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O; G
	Opportunities for reflection	O
	Problem solving activities	O
	Experimentation	
Multiple Intelligence Theory	Using words and language	O; G
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O; G
	Considering other peoples' feelings and working with others	O
	Working alone and considering one's own response	O
Didactic	Lecture style	O
	Focus on facts and figures	O; G
	Little room for pupil input	O
	A narrative structure.	O
Typological category		Content focussed working with artefacts
Number of positive changes in creativity score/total		42%
Activity behaviour and progression		10%
Enjoyment, inspiration and creativity		30%
Skills		7%
Knowledge and understanding		37%
Attitudes and values		16%
Archaeological educator with an archaeology background		No
Fit to curriculum		Loose

v. Bede's World: School 5

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data	O; G
	An emphasis on the professional status of the archaeologist.	O
Post-processual archaeology	A focus on agency	O; G
	Opportunities to use empathy to develop ideas about the past	O; G
Constructivism	Cognitive dissonance and assimilation	O; G
	Early opportunities to identify pupils' prior constructions	O
	Free choice environment	O
Social Constructivism and socio-cultural perspectives	Use of active questioning and role-play initiated by the archaeological educator	O
	A problem-solving approach as opposed to discovery learning	O
	A focus on big concepts such as change or context.	O; G
	Using language to provoke questions and further discussion	O
	Site activities and programmes in an authentic context.	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O
Learning Styles Theory	Visual exploration	O
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O
	Opportunities for reflection	O
	Problem solving activities	O
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Using the natural environment and working with animals.	O; G
Didactic	Focus on facts and figures	G
Typological category		Content focussed site tour and living history
Number of positive changes in creativity score/total		60%
Activity behaviour and progression		39%
Enjoyment, inspiration and creativity		0%
Skills		0%
Knowledge and understanding		44%
Attitudes and values		17%
Archaeological educator with an archaeology background		No
Fit to curriculum		History

vi. The Peat Moors Centre: School 6

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data	O; G
Post-processual archaeology	A focus on agency and the role of the individual in the past	O
	Opportunities to use empathy to develop ideas about the past	O
Social Constructivism and socio-cultural perspectives	Use of active questioning and role-play initiated by the archaeological educator	O
	A problem-solving approach as opposed to discovery learning	O
	Site activities and programmes in an authentic context.	O; G
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O
Learning Styles Theory	Visual exploration	O; G
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O; G
	Opportunities for reflection	O
	Problem solving activities	O
	Experimentation	O
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Considering other peoples' feelings and working with others	O
	Using the natural environment and working with animals.	O
Didactic	Focus on facts and figures	O
Typological category		Content focussed living history
Number of positive changes in creativity score/total		56
Activity behaviour and progression		0
Enjoyment, inspiration and creativity		50%
Skills		44%
Knowledge and understanding		6%
Attitudes and values		0%
Archaeological educator with an archaeology background		No
Fit to curriculum		History curriculum and cross curricular

vii. The Peat Moors Centre: School 7

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	A focus on skills.	O; G
	An emphasis on data	O; G
	An emphasis on the scientific method	O
	An emphasis on the professional status of the archaeologist.	O
Post-processual archaeology	A focus on agency	G
	Opportunities to use empathy	G
	Consideration of the different values that modern people bring to the past and an awareness that people in the past had different value systems.	O
Constructivism	Allowing pupils to construct ideas through personal discovery.	O
Social Constructivism and socio-cultural perspectives	Group discussion	O
	Use of active questioning and role-play initiated by the archaeological educator	O
	A problem-solving	O
	Authentic context.	O
ELT	Experience followed by reflection	O
Learning Styles Theory	Visual exploration	O
	Auditory information	O
	Tactile and physical exploration	O; G
	Opportunities for experience	O; G
	Opportunities for reflection	O
	Problem solving activities	O
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Considering other peoples' feelings and working with others	O; G
	Working alone and considering one's own response	O
	Using the natural environment and working with animals.	O; G
Didactic	Focus on facts and figures	O; G
Typological category		Content focussed living history and content focussed working with artefacts
Number of positive changes in creativity score/total		79%
Activity behaviour and progression		19%
Enjoyment, inspiration and creativity		37%
Skills		30%
Knowledge and understanding		11%
Attitudes and values		3%
Archaeological educator with an archaeology background		No
Fit to curriculum		Very loose link to Roman history topic

viii The Peat Moors Centre: School 8

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	A focus on skills.	O; G
	An emphasis on data	O; G
	An emphasis on the scientific method	O; G
	An emphasis on the professional status of the archaeologist.	O
Post-processual archaeology	A focus on agency	O
	Opportunities to use empathy	O
Constructivism	Allowing pupils to construct ideas through personal discovery.	O
Social Constructivism and socio-cultural perspectives	Use of active questioning and role-play	O
	A problem-solving approach as opposed to discovery learning	O
	Site activities and programmes in an authentic context.	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O
Learning Styles Theory	Visual exploration	O
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O; G
	Opportunities for reflection	O
	Problem solving activities	O
	Experimentation	O
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Considering other peoples' feelings and working with others	O; G
	Working alone and considering one's own response	O
	Using the natural environment and working with animals.	O; G
Didactic	Focus on facts and figures	O
Typological category		Content focussed living history and content focussed working with artefacts
Number of positive changes in creativity score/total		58%
Activity behaviour and progression		13%
Enjoyment, inspiration and creativity		36%
Skills		35%
Knowledge and understanding		5%
Attitudes and values		2%
Archaeological educator with an archaeology background		No
Fit to curriculum		Fitting into a history topic on the Celts

ix. Hampshire and Wight Trust for Maritime Archaeology: School 9

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	A focus on skills.	O; G
	An emphasis on data	O; G
	An emphasis on the scientific method	O; G
	An emphasis on the professional status of the archaeologist.	O; G
Post-processual archaeology	A focus on agency and the role of the individual in the past	G
	The presentation of alternative interpretations/opportunities for pupils to consider alternative ideas.	O; G
	Opportunities to use empathy to develop ideas about the past	G
	Consideration of context for interpretation	O
Constructivism	Allowing pupils to construct ideas through personal discovery.	O; G
	Free choice environment which enables pupils to choose what they engage with and how.	O
Social Constructivism and socio-cultural perspectives	Group discussion	O
	Use of active questioning and role-play initiated by the archaeological educator	O
	A focus on big concepts such as change or context.	O
	Site activities and programmes in an authentic context.	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O
Learning Styles Theory	Visual exploration	O
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O; G
	Opportunities for reflection	O
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O; G
	Considering other peoples' feelings and working with others	O; G
	Working alone and considering one's own response	O
	Using the natural environment and working with animals.	O; G
Didactic	Focus on facts and figures	O; G
Typological category		Processed focussed fieldwork
Number of positive changes in creativity score/total		73%
Activity behaviour and progression		31%
Enjoyment, inspiration and creativity		13%
Skills		10%
Knowledge and understanding		37%
Attitudes and values		9%
Archaeological educator with an archaeology background		Yes
Fit to curriculum		Not being fitted to the curriculum

x. Wiltshire Heritage Museum: School 10

Theory	Characteristic/feature	Observation (O)/GLO (G)
Social Constructivism and socio-cultural perspectives	Site activities and programmes in an authentic context.	Observation; GLO
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	Observation
	Evidence that the experiences have had an impact upon the pupils' future actions/ideas.	Observation; GLO
Learning Styles Theory	Visual exploration	Observation
	Auditory information	Observation
	Opportunities for experience	Observation; GLO
	Opportunities for reflection	observation
Multiple Intelligence Theory	Physical movement	observation
	Using images and space	observation
	Working alone and considering one's own response	observation
	Using the natural environment and working with animals.	observation
Didactic	Lecture style	observation
	Little room for pupil input	Observation
Typological category		Archaeology inspired arts education
Number of positive changes in creativity score/total		73%
Activity behaviour and progression		21%
Enjoyment, inspiration and creativity		61%
Skills		0%
Knowledge and understanding		18%
Attitudes and values		0%
Archaeological educator with an archaeology background		No
Fit to curriculum		No formal link

xi. Wiltshire Heritage Museum: School 11

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data (e.g. artefacts and ecofacts, site plans)	GLO
Constructivism	Free choice environment which enables pupils to choose what they engage with and how.	Observation; GLO
Social Constructivism and socio-cultural perspectives	A focus on big concepts such as change or context.	GLO
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	observation
	Evidence that the experiences have had an impact upon the pupils' future actions/ideas.	observation
Learning Styles Theory	Visual exploration	Observation; GLO
	Auditory information	observation
	Tactile and physical exploration	observation
	Opportunities for experience	Observation; GLO
	Opportunities for reflection	observation
Multiple Intelligence Theory	Physical movement	observation
	Using images and space	observation
	Considering other peoples' feelings and working with others	GLO
	Working alone and considering one's own response	observation
Didactic	Lecture style	observation
	Little room for pupil input	Observation
Typological category		Archaeology inspired arts education
Number of positive changes in creativity %		52%
Activity behaviour and progression		44
Enjoyment, inspiration and creativity		18
Skills		5
Knowledge and understanding		32
Attitudes and values		1
Archaeological educator with an archaeology background		No
Fit to curriculum		Not being linked to curriculum

xii. Wiltshire Heritage Museum: School 12

Theory	Characteristic/feature	Observation (O)/GLO (G)
Processual archaeology	An emphasis on data	O; G
Post-processual archaeology	A focus on agency and the role of the individual in the past	O; G
	Opportunities to use empathy to develop ideas about the past	O
	Consideration of the different values that modern people bring to the past and an awareness that people in the past had different value systems.	O
Constructivism	Opportunities to create cognitive dissonance and achieve cognitive equilibrium.	O
	Early opportunities to identify pupils' prior constructions	O
Social Constructivism and socio-cultural perspectives	Use of active questioning and role-play initiated by the archaeological educator	O
ELT	Pupils are able to engage in an experience immediately followed by an opportunity to reflect.	O
Learning Styles Theory	Visual exploration	O
	Auditory information	O
	Tactile and physical exploration	O
	Opportunities for experience	O
	Opportunities for reflection	O
	Problem solving activities	O
Multiple Intelligence Theory	Using words and language	O
	Using logic and numbers	O
	Physical movement	O
	Using images and space	O
	Considering other peoples' feelings and working with others	O
	Using the natural environment and working with animals.	O
Typological category		Content focussed working with artefacts
Number of positive changes in creativity score/total		58%
Activity behaviour and progression		73%
Enjoyment, inspiration and creativity		0%
Skills		0%
Knowledge and understanding		15%
Attitudes and values		12%
Archaeological educator with an archaeology background		Yes
Fit to curriculum		History

Appendix I

Full Data Tables

i. Summary data for each school visit

School No.	No. of pupils	Age of pupils	Workshop name	Pupils who experienced a positive change in their creativity (%)	Fit to curriculum	Workshop category
1	25	10-11 years old	Castle tour	28%	Loose fit to history	Content based site tour
2	24	8-9 years old	Classroom based study session	63%	History and geography	Process driven working with artefacts
3	26	11-12 years old	Classroom based study session	65%	Loose fit to history and geography	Content focussed working with artefacts and exhibition
4	26	9-10 years old	Classroom based study session	42%	Loose fit to history	Content focussed working with artefacts and exhibition
5	20	8-9 years old	Anglo-Saxon Life	60%	History	Content focussed site tour and living history
6	10	4-7 years old	Iron Age Life	56 %	History:	Content focussed living history
7	34	8-9 years old	Iron Age Life and Archaeology	79%	Loose link to history	Content focussed living history and working with artefacts
8	33	8-9 years old	Iron Age Life and Archaeology	58%	History	Content focussed living history and working

						with artefacts
9	46 (although only 33 took part in the assessments)	7-8 years old	Hulk recording	73%	Not being fitted to curriculum work	Processed focussed fieldwork
10	30	7-9 years old	Artist-led workshop at Avebury	73%	Loose fit to geography and history	Archaeology inspired arts education
11	25	7-11 years old	Museum based artist-led session	52%	No curriculum link	Archaeology inspired arts education
12	31	9-11 years old	Museum handling session: Victorians	58%	History	Content focussed working with artefacts

ii. Generic learning outcomes for each school visit

GLO (percentage)	School Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Activity behaviour and progression	0	10	3	10	39	0	19	13	31	21	21	44
Enjoyment, inspiration and creativity	38	47	33	30	0	50	37	36	13	61	61	18
Skills	0	3	5	7	0	4	30	35	10	0	0	5
Knowledge and understanding	59	27	54	37	44	6	11	5	37	18	18	32
Attitudes and values	3	13	5	16	17	0	3	2	9	0	0	1

Appendix J

Corfe Castle - Full Background

Corfe Castle is a ruined Norman castle near Wareham in Dorset. White, who heads the education team at Corfe Castle provided the following information about the service in June 2007 (P. White pers comm. 5th June 2007): about 4000 school pupils *per annum* take part in formally led tours of the castle with a further thousand pupils also taking part in classroom based study sessions led by education staff at the visitor centre. In the response to the questionnaire initially sent out, staff from Corfe Castle indicated that they developed their programmes based on their prior knowledge of teaching and learning and in some cases using the ILfA framework.

Two different types of programmes are offered to schools, a guided tour of the castle site (tour) or a staff led study room session exploring life at the castle. The guided tours last about an hour begins on the bridge over the castle moat and then follows a set route around the Castle with stops at key places so that the education officers can point out specific architectural features or tell the pupils specific facts about the castle's history. The classroom based study sessions last between an hour and an hour and a half and are delivered in the classroom at the castle visitor centre and also making use of the displays in the public exhibition space there. Various interactive activities are set out along two sides of the classroom and include wooden models which demonstrate medieval building techniques, archaeological sorting activities and related crafts. The workshops observed were led by two different members of staff. The workshops undertaken by Schools 1, 2 and 4 were led by a paid member of staff with a teaching qualification but no archaeological training. The workshop undertaken by School 3 was led by a volunteer with teaching experience but no archaeological training. The activities available as part of the classroom

based study session were developed between close liaison between the education team and the National Trust archaeologist for their Wessex region.

The programmes are designed to support the National Curriculum for history: at Key Stage 1 the workshops are intended to teach pupils about life in castles and homes through time and at Key Stage 2 the workshops have been targeted towards helping pupils develop their understanding of medieval life. Geographical themes are also explored and White (pers comm. 5th June 2007) stated that she intends that the workshops will have a positive impact upon pupils' social skills.

Of all the schools taking part in the workshops observed and assessed the only school to have undertaken any significant pre-visit work was School 2. The pupils from School 2 had also been asked to bear the specific question 'why was the castle built where it was' in mind during the trip and were to undertake significant post-visit work on their return to school. The teachers from the other schools stated that the curriculum link was 'loose' and in fact the teacher in charge of the school party from School 4 said he was much more interested in the pupils developing their social skills and team work skills.

The Peat Moors Centre - Full Background

The Peat Moors Centre was a reconstructed Iron Age village based on the archaeological evidence from the Glastonbury Lake Village. It was located six miles away from Glastonbury in Somerset. The centre was run by the Heritage Service of Somerset County Council (E. Wills pers comm. 14th November 2007), but was closed in October 2009 due to financial cuts (This is Dorset 2009).

In 2007 (the last recorded year before the workshops observed for this study) the Peat Moors Centre welcomed 37 schools (Somerset County Council 2009). Visiting schools had a choice of three workshops (Somerset County Council 2009), Iron Age life, Archaeology and Environmental Activities. The first two workshops were based around archaeological themes. The Iron Age life and Archaeology workshops were developed to support the National Curriculum for history and were particularly suitable for pupils studying the Romans option of the Settlers and Invaders unit at Key Stage 2 or the Homes Through Time unit at Key Stage 1. The workshops followed a standard structure, but were tailored to meet the needs of each of the schools. School 6 took part in a single workshop, Iron Age life, however, Schools 7 and 8 both took part in two workshops, Iron Age life and Archaeology. In the response to the questionnaire initially sent out staff from The Peat Moors Centre indicated that they developed their programmes using a combination of theories which included prior knowledge of teaching and learning, learning styles theory and Joseph's Cornell's flow learning principles which were developed to guide environmental learning practices.

The Iron Age workshop began with a question and answer session in one of the roundhouses at the site. The explicit aim of the introduction in the roundhouse was to compare and contrast Iron Age home life with 21st-century home life. This lasted for about an hour and was followed by a series of construction activities (making a wattle and daub wall and erecting rafters onto a roundhouse frame) which lasted for a further half an hour. The final half an hour of the Iron Age workshop varied, but covered different relevant experimental archaeology activities, including cloth dying, coin striking, bread

making, pot making and metal casting. The education officer sometimes delivered this workshop playing the role of an Iron Age man and sometimes as himself.

The Archaeology workshop was designed to give pupils the opportunity to excavate artefacts from the peat. The workshop also conveyed messages about taphonomy, in particular how the wooden structures of the Sweet Track were able to survive. The excavation was simulated and was carried out in a large pre-dug sunken pit area filled with peat. Various artefacts, including wooden structures designed to resemble sections of the Sweet Track had been buried in the peat for the pupils to uncover. Following a brief introduction the excavation itself lasted for about an hour at the end of which the Peat Moors Centre education officer encouraged the pupils to group the artefacts by material, e.g. bone, wood, metal and clay. The education officer then led a class discussion about the finds.

The class teacher from School 6 had arranged the visit to complement the pupils' study of a houses and homes in history, but also intended to draw a cross-curricular link to the pupils' topic work about materials and ourselves and the world around us. The teacher confirmed that the pupils had undertaken relevant pre-visit work but did not elaborate on what this was. However, it was clear that the pupils knew what roundhouses were as at least one pupil pointed to and correctly identified a roundhouse while still at the entrance to the site. The teacher also intended the visit to provide inspiration for an after school activity based around sewing and weaving. School 7 visited the Peat Moors Centre as part of a five day residential visit to the area and although the teacher in charge said the pupils had previously studied the Romans she also noted that the curriculum link was loosely based. The pupils from School 8 visited the Peat Moors Centre as part of their history studies about the Celts: they had begun to learn about the Iron Age before their visit but had not discussed their visit to the centre specifically. The class teacher stated that the pupils would spend a lesson discussing their visit on their return to school.

Hampshire and Wight Trust for Maritime Archaeology - Full Background

HWTMA was established in the early 1990s as a charitable organisation with the aim of researching and recording maritime archaeology particularly in the Hampshire and Isle of Wight areas. Since the Trust operates a research based work programme, the educational services for schools are often delivered as outreach linked to research projects. This means that the education programme is constantly changing and as such the education service offered by HWTMA differs significantly from the education services offered by the other organisations detailed in this study. At the time of this research the Trust employed two permanent education officers who led the workshop observed here. Both the education officers had a professional archaeology background and additionally one of them held a teaching qualification. In their response to the initial questionnaire sent out the education officers did not indicate that they used any theories in particular to guide the development of their workshops and therefore, it can only be concluded that the underpinning theories were applied unconsciously.

The school workshops evaluated for this study focussed on recording hulks on the foreshore at Forton Lake, Gosport, Hampshire. The school workshops were part of a wider research project to investigate hulk remains. The overall project was jointly delivered by the Trust and the Nautical Archaeological Society and funded by a Local Heritage Initiative grant from the HLF (HWTMA 2007, 16).

Wiltshire Heritage Museum - Full Background

Wiltshire Heritage Museum is an independent museum based in Devizes in Wiltshire. The Museum hosts around 4000 school visits per year both at the Museum itself and at sites across Wiltshire (A. Rushent pers comm. 15 December 2008). There are 15 different workshops for schools on offer tailored towards the needs of a range of curriculum subjects including history, literacy, art, numeracy, drama and science (Rushent 2010). Additional workshops linked to temporary exhibitions are also offered (A. Rushent pers comm. 15 December 2008). Most of the workshops are delivered by the Museum's education officer who has a professional background in archaeology.

Three school visits arranged by Wiltshire Heritage Museum were observed. The first two workshops were led by an artist in connection with a forthcoming exhibition at the Museum. School 10 took part in the first workshop in the series which took place at Avebury World Heritage Site. This visit lasted for about an hour and a half and gave pupils the opportunity to draw the Avebury stones in their landscape. School 11 took part in the second artist led workshop which took place at the Museum and also lasted for about an hour and a half. Pupils were able to develop their drawing skills by drawing artefacts from the collection. Several local schools had been invited to take part in both workshops. The exhibition was funded by a grant from Kennet District Council and this funding covered the artist's fee which meant the workshops were offered to schools free of charge. School 12 took part in the third workshop which was an hour long artefact handling session based at the Museum and was delivered by the Museum's education officer.

The intended outcomes the Museum hoped to deliver through the workshops varied depending on the programme. The handling session was designed to support pupils curriculum based learning and help pupils to develop knowledge and understanding about various periods of history (in this case the Victorians). The outcomes of the artist led workshops were less clear, but a key driver was the delivery of an outreach programme connected an exhibition at the Museum. In contrast to the teachers from School 9 (HWTMA) the teachers from School 10 were enthusiastic about the

opportunity to take part in a workshop which was being offered opportunistically. They felt that the workshop was relevant to the local study project the pupils were undertaking as part of their study of the geography curriculum. Since their planned topic involved them studying the local landscape including its stone circles the workshop matched their needs well and the teachers felt the workshop provided an excellent addition to their classroom studies. The teachers also intended to exhibit the pupils work completed as part of the workshop back at school. Similarly, School 10 was approached by the Museum, but had not found out about the workshop until a couple of days before it took place so the teachers had not integrated the visit formally into their curriculum studies. However, they saw the visit as valuable in terms of allowing the pupils to work outside of the classroom and with an artist. The teachers also felt it was particularly relevant to the personal learning projects of some of the pupils. In contrast the teachers from School 12 booked the workshop specifically to complement the pupil's learning about the Victorians as part of their history studies. The workshop was timed to take place at the beginning of the pupils' topic work to provide inspiration and stimulus. When the pupils returned to school the pupils would be asked to brainstorm what they knew about the Victorians (including the information picked up from the Museum visit) and then plan what they would need to find out to complete independent research projects.

The specific intentions of the pupils is unknown, but in all cases they will have had very little preparation for the visits: in the cases of Schools 10 and 11 the teacher's had had little notice and therefore the pupils will have had even less time; in the case of School 12 the workshop was at the beginning of a topic with a teacher intention to provide a stimulus for the topic and thus it can be inferred that little or no pre-visit work had been undertaken. However, based on the early reactions of the pupils from all the schools it seems obvious that the pupils hoped to enjoy the workshops. Pupils at Avebury were heard making audible exclamations of 'wow' at the start of the workshop and pupils from the other two schools chatted in an excited manner immediately prior to the beginning of the workshop.

