

RESOURCE: THE COUNCIL FOR MUSEUMS, ARCHIVES AND LIBRARIES**LEARNING IMPACT RESEARCH PROJECT (LIRP)****Developing a scheme for finding evidence of the outcomes and impact of learning in museums, archives and libraries: the conceptual framework**

Eilean Hooper-Greenhill
Prepared for the LIRP team
July 12th 2002

Research Centre for Museums and Galleries
Department of Museum Studies
University of Leicester
103-105 Princess Road East
Leicester LE1 7LG
Tel: +44 (0)116 252 3963
Fax: +44 (0)116 252 3960
Email: rcmg@le.ac.uk
Ehg@le.ac.uk
Web: <http://www.le.ac.uk/museumstudies/rcmg>

Developing a scheme for finding evidence of the outcomes and impact of learning in museums, archives and libraries: the conceptual framework

1. Introduction

1.1 The Research Centre for Museums and Galleries (RCMG), Department of Museum Studies, University of Leicester has been commissioned by Resource: the Council for Museums, Archives and Libraries to work with them on the Learning Impact Research Project (LIRP). LIRP forms an integral part of Resource's Learning Framework which is described in *Inspiring Learning for All*¹. The aim of LIRP is to develop an understanding of learning and its outcomes and to establish a way of researching and providing evidence of this learning in museums, archives and libraries. This will enable organisations to be aware of the effectiveness of the environments for learning that they provide, and to work towards improving opportunities for their users. Resource also wishes to provide evidence that may be quantified in order to present a national picture of the impact of learning across the museum, archive and library. The learning experiences that Resource wishes to describe encompass learning that arises from projects and workshops, but also (and importantly) includes the everyday learning experiences of all users of museums, archives and libraries.

1.2 This paper discusses the concept of 'generic learning outcomes'. This summary paper is supported by an in-depth background paper on learning outcomes². Together, the two papers present the conceptual background and rationale for the development of tools that will provide evidence of learning in museums, archives and libraries. The development of the specific tools is not discussed here.

2. Understanding learning

2.1 Over the past few years the theory and practice of education has changed profoundly. The emergence of lifelong learning³ and a deeper understanding of learning processes are among the most significant of these changes. However, as the ESRC Teaching and Learning Research Programme makes abundantly clear⁴, "contested views" on the nature and status of educational enquiry and research are held, and it is important to set out the approach to understanding learning that will be adopted by Resource. In broad terms, Resource adopts a socio-cultural and constructivist view of learning. It sees learning as a complex process involving more than just the acquisition of a body of knowledge; learning also encompasses

¹ Resource (2002) *Inspiring Learning for All: a Framework for Museums, Archives and Libraries*, online at www.resource.gov.uk. (draft 5; 16.04.02)

² Mousouri, T. (2002) *A context for the development of learning outcomes in museums, archives and libraries*. Prepared for the Learning Impact Research Project at RCMG for Resource.

³ The expression 'lifelong learning' encompasses many of the changes in the character of education that have emerged recently. These changes include the idea that learning does not end once formal education is completed, but in addition include references to other major shifts in emphasis such as the change from teacher-centred to student centred; face-to-face to distance; education to learning; the few to the many; single discipline knowledge to integrated knowledge; knowledge as truth to knowledge as relative; and rote learning to reflective learning (Jarvis, P., Holford, J. and Griffin, C. (1998) *The Theory and Practice of Learning*, Kogan Page, London:1-2).

⁴ Economic and Social Research Council (2002) *The Teaching and Learning Research Programme - Specification for Phase III*, p. 6-7 (on-line <http://www.ex.ac.uk/ESRC-TLRP/phase3spec.htm>.) See also McIntyre, D. and McIntyre, A. (2002) *Capacity for Research into Teaching and Learning, Final Report, ESRC Teaching and Learning Programme*, University of Cambridge School of Education, (on-line <http://www.ex.ac.uk/ESRC-TLRP/rescaphome.htm>.)

the construction of individual and collective meaning. Resource considers the ability to learn in a critical and reflexive way through out life as essential in a world where it is difficult to predict what knowledge will be required in the future. Recent developments in learning theory give substance to these views⁵.

2.2 Museums, archives and libraries make important contributions to learning in schools; however, learning does not stop on leaving school and lifelong learning (learning as a way of living) is now regarded as essential.

2.3 Learning may be understood as a set of complex inter-related processes that:

- *are idiosyncratic and unpredictable
- * are both individual and collective
- * relate and shape individual learning through interactions with other people, with social spaces and with specific tools for learning
- * involve personal and collective identity and the search for personal and group relevance
- * are 'situated' – linked to a physical context or to a subject-related context
- * generally build upon what learners already know to make this prior knowledge deeper, more explicit, and more finely developed
- * more rarely involve learning things that are completely new
- * result in explanations and knowledge which appear meaningful to learners and which are provisional (that is, last as long as they are useful or until they become superceded by new meanings)

2.4 learning is circular, developing over time. It is acknowledged that human beings strive after meaning⁶ and that this is what provokes learning. Information and experience is used as and when it becomes personally useful and may be ignored, forgotten, or remain at a tacit level unless needed. Learning has been described as being as crucial and fundamental as breathing⁷ or being alive⁸. Learning is an integral part of our everyday lives⁹. Much of what we would recognise as learning involves the use of what we already know, or half-know, in new combinations or relationships or in new situations. Cognitive knowledge (information, facts) cannot be separated from affective knowledge (emotions, values).

2.5 This explanation of learning accepts the active role of the individual mind in making meaning. Prior knowledge is a vital part of making meaning. Sotto puts it this way:

⁵ See Jarvis, P., Holford, J. and Griffin, C. (1998) *The Theory and Practice of Learning*, Kogan Page, London for a discussion of ways of thinking about learning.

⁶ Sotto, E. (1994) *When Teaching Becomes Learning: a Theory and Practice of Teaching*. London: Cassell, 36.

⁷ Jarvis, et. al. (1998) : vii.

⁸ Claxton, G. (1999) *Wise-up: The Challenge of Lifelong Learning*, Bloomsbury Publishing, London, 6.

⁹ Wenger, E. (1998) *Communities of Practice: Learning, Meaning and Identity*. Cambridge: Cambridge University Press.

"If I have a working model of what is being talked about already inside my head, I am able to follow what is being said. But if I do not have such a working model, .. I may understand the individual *words* being said to me but I do not really understand their full *meaning*. The result is I begin to lose track of what is being said to me."¹⁰

2.6 It also recognises that individual meaning is mediated among and between communities of interpretation¹¹, and communities of practice¹². That is, the making of meaning (which is one way of describing learning) is a social or collective endeavour, even though meaning is produced by individuals, with interpretations of experience being tested and validated through the communities that shape our lives (school, family, workplace or leisure communities).

2.7 The emphasis in this way of thinking about learning is on learners rather than teachers, whose role becomes the facilitation of learning rather than the delivery of knowledge. This is a broad way of thinking about learning that includes everyday problem-solving as well as formal teaching. The emphasis on the facilitation of learning means that appropriate teaching methods will be selected, so that where a formal didactic approach is the most suitable for learners (as in many formal educational organisations) this will be chosen. Equally, however, it is acknowledged that formal teaching does not suit all learners and all forms or spaces of knowledge and so other methods that emphasise active, sensory and experienced-based learning will also be deployed.

2.8 Learning theories that are already well-recognised across the sector include the concepts of multiple intelligences¹³ and of differentiated learning styles¹⁴. These ideas have been found to be useful as they emphasise the variety of approaches to learning that we can expect the users of museums, archives and libraries to adopt. A further useful addition to the portfolio of explanations of learning is the explanation of differentiated modes of attention. Claxton suggests that attention runs along a continuum from a tight focus, like a spotlight, to a low focus, like a floodlight. He discusses how both are essential to learning. The spotlight mode segments and analyses. It makes a sharp distinction between that which is relevant and that which is not, and focuses tightly on those elements of a situation that will enable the solving of the current problem. The floodlight mode is open, receptive, unselective, and while it illuminates less brightly, may detect wider patterns and connections. Claxton describes this floodlight mode as the default mode of the brain – broad and unselective, it is essential for the generation of new ideas, and for coping with unfamiliar environments¹⁵. The floodlight mode describes the open-ended and unfocused way in which first-time users cruise through museums and libraries waiting for something to attract their attention and spark off a personal association. The spotlight mode describes the way in which users of museums, archives and libraries identify and 'home in' on a set of books or documents, or study a group of objects, when they have clearly identified objectives in mind.

2.9 As we know from *Inspiring Learning for All*, Resource has adopted the following definition of learning:

¹⁰ Sotto (1994): 32.

¹¹ Fish, S. (1980) *Is there a text in this class? The authority of interpretive communities*, Harvard University Press, Cambridge M.A. and London.

¹² Wenger (1998).

¹³ Gardner, H. (1985) *Frames of Mind: The Theory of Multiple Intelligences*, Paladin, London; Gardner, H. (1991) *The Unschooled Mind: How Children Think and How Schools Should Teach*, Fontana Press, London.

¹⁴ Gunther, C. (1999) 'Museum-goers: life-styles and learning characteristics', in Hooper-Greenhill, E. *The Educational Role of the Museum*, 2nd Edition, Routledge, London, 118-130.

¹⁵ Claxton (1999), 74-5.

Learning is a process of active engagement with experience. It is what people do when they want to make sense of the world. It may involve increase in or deepening of skills, knowledge, understanding, values, feelings, attitudes and the capacity to reflect. Effective learning leads to change, development and the desire to learn more¹⁶.

2.10 Museums, archives and libraries are open and flexible environments for learning. They may be used as sites for formal and didactic teaching, but equally, they may be used in informal ways. Self-directed learning is well-established in these cultural environments, and the potential for creativity, enlightenment and in-depth learning is well acknowledged. How can these complex and diverse ways that people use museums, archives and libraries for learning be 'measured'?

2.11 Resource's Learning Framework *Inspiring Learning for All* enables individual organisations to assess how well they have planned for the provision of an effective environment for learning. The Framework goes further than this however, by focusing on the outcomes of the use of these environments. Thus Resource wishes to look at not only how many people use a specific site, or what they do there, but what impact this experience has on users. This means that the Learning Framework focuses as much on outcomes as it does on processes and outputs.

2.12 This paper examines issues around the measurement of the outcomes of learning in museums, archives and libraries. Through the examination of these issues, and the development of a scheme of generic learning outcomes that can be used in all three domains, the paper provides a classification scheme and a language for describing and analysing the experiences that people have in museums, archives and libraries.

2.13 The next part of the paper reviews the approach taken to measuring learning outcomes in formal education before moving on to consider the challenges of developing a scheme for measuring the outcomes of learning in sites for informal and open learning such as museums, libraries and archives. At the end of the paper, one approach to thinking about learning outcomes in cultural organisations is outlined.

3. Learning outcomes in formal education

3.1 Today, the concept of learning outcomes is routinely used in organisations whose major remit is education. Thus in schools, colleges and universities, the identification of learning outcomes forms a major element of curriculum design and planning. And in formal education, learning outcomes can be developed without too much discomfort.

3.2 Learning outcomes are developed in relation to specific programmes of study or schemes of work. In universities, for example, all course and programme specifications and module outlines must include an explicit statement of intended learning outcomes. Specific assessment criteria for judging students' achievement in respect of these outcomes are indicated. Lecturers write the learning outcomes and judge individual student achievement against these requirements. Aims and outcomes are written to describe the knowledge, understanding, skills and attributes that learners will have achieved upon completion of the course of study.

3.3 Learning outcomes have been defined as:

¹⁶ Resource (2002) *Inspiring Learning for All: a Framework for Museums, Archives and Libraries*, p. 3: online at www.resource.gov.uk. (draft 5; 16.04.02)

Specific measurable achievements. These are similar to (programme) objectives but described in terms of what the learners will be able to do.¹⁷

3.4 Learning outcomes are frequently seen as measurable, achievable, and therefore assessable and are written in relation to desired changes in the learner's behaviour:

Learning outcomes should flow from a needs assessment. The needs assessment should determine the gap between an existing condition and a desired condition. Learning outcomes are statements which described a desired condition – that is, the knowledge, skills, or attitudes needed to fulfil the need.¹⁸

3.5 In general learning outcomes are expressed in terms of 'can do' verbs. Those recommended include: compile, plan, analyse, select, apply, demonstrate, assess, reflect, enumerate, combine, contrast. These are precise and focussed. 'Can do' verbs that are too open to be fully useful are: know, become aware, appreciate, understand, enjoy, learn. Learning outcomes suggest what a student should be able to do at the end of a programme of study:

Compile a list of recognised approaches to

Compare and contrast two different.....

Plan a small-scale investigation to....

Assess the relevance of

Recognise the phases of

3.6 While learning outcomes might be learner-centred, it is rare in formal education for learners to write their own learning outcomes. Where specific learning programmes are involved, learning outcomes are generally devised by the lecturer/teacher in relation to a baseline (what students know at the beginning of a programme of study), and students are assessed at the end of the programme (have students achieved the desired outcomes). The development of learning outcomes, along with the selection of learning materials and their effective delivery, is seen as the responsibility of the lecturer/teacher and part of effective course design. Learning outcomes provide a required standard against which both teachers and learners themselves can measure progress.

3.7 Learning outcomes, then, are part of the norm in formal educational environments. They are developed, written and assessed by the lecturer/teacher, are assessed against a known knowledge-related baseline, at the end of a specific programme of study, and students are aware that this evaluation will take place.

3.8 Where taught programmes are delivered in museums, archives and libraries (as part of a school service, or for adults on focused learning sessions) it is also possible to develop appropriate programme objectives with specific learning outcomes, to assess the baseline knowledge or attitudes of programme participants, and to assess any change in knowledge, skills or attitudes following involvement in the programme. Many project funders (such as the Department for

¹⁷ From course notes, Writing Learning Outcomes, University of Leicester Postgraduate Certificate in Academic Practice in HE; from Lin Throley et.al. *Guidance on Learning Outcomes*, University of Hertfordshire.

¹⁸ <http://www.aallnet.org/prodev/outcomes.asp>

Education and Skills) now require this level of evidence. In the USA, funding bodies such as the Institute of Museum and Library Services have developed sophisticated guidelines for what they call Outcome-Based Evaluation, or OBE¹⁹. This is described as a tool for effective management (and is not seen as 'research'), and it has become a requirement for their funded programmes.

4. The challenges of developing learning outcomes in sites for informal and open learning

4.1 The development of learning outcomes to relate to all users of museums, archives and libraries is more difficult than the development of learning outcomes for those on formal educational programmes. In open, informal and flexible learning environments, approaches to learning are very variable and diverse, and are dependent on the intentions and agendas of users. The outcomes of learning may be 'anticipated' and possibly 'expected', but cannot be 'required'.

4.2 While some users of museums, archives and libraries may look for specific teaching programmes such as art or drama workshops, or reading groups, and some users may wish to relate their experience explicitly to a programme of study, equally, many users will not wish to focus quite so intently on formal learning achievements. In cultural organisations learning may encompass a wide range of forms, styles, and approaches and it is this breadth that represents the unique value of learning through culture. It is therefore impossible to define specific learning outcomes for each individual.

4.3 It is difficult to know when to assess the achievement of learning. If learning is a continuous lifelong process it is very difficult to assess the outcome of informal learning at any particular moment in time. If learning outcomes are being researched immediately after a museum or library visit, for example, how do we know that greater learning will not happen after this moment? What is being measured?

4.4 What was then called 'goal-oriented evaluation' has been tried and left behind in the museum world. Attempts in the past to assess the effectiveness of exhibitions through evaluating how far museum visitors had correctly assimilated what the exhibitions were trying to communicate was abandoned when it was realised that however well the exhibition was designed, the agenda of the visitors might mean that the exhibition's message was ignored in favour of quite other interpretations²⁰. Goal-oriented evaluation was based on a stimulus-response view of learning that was rooted in behavioural psychology, and the failure to find evidence of what was then seen as learning (i.e. the correct assimilation (the response) of the curatorial message (the stimulus)) was interpreted as meaning that learning was not taking place. Social learning theory suggests that even though exhibition visitors may not wish to learn the facts the exhibitions may wish to communicate, other forms of learning will be taking place.

¹⁹ Motylewski, K. (2001) *New directives, new directions: documenting outcomes in IMLS grants to libraries and museums*, Institute of Museum and Library Services, 1100 Pennsylvania Avenue, DC 20506. This paper will be sent electronically on request and contains a number of very useful references. Web: <http://www.ims.gov> or kmotylewski@imls.gov See also IMLS (not dated) *Perspectives on outcome-based evaluation for libraries and museums*.

²⁰ Miles, R. and Tout, A. (1994) 'Outline of a technology for effective science exhibits', in Hooper-Greenhill, E. (ed) *The Educational Role of the Museum* (first edition), Routledge, 87-100; Miles, R. and Tout, A. (1994) 'Impact of research on the approach to the visiting public at the Natural History Museum, London', in Hooper-Greenhill, E. (ed) *The Educational Role of the Museum* (first edition), Routledge, 101 - 106; Screven, C. G. (1986) 'Exhibitions and information centres: some principles and approaches', *Curator*, 29(2), 109-37.

4.5 In thinking about what might be a useful way of conceptualising learning outcomes for all in libraries, archives or museums a number of basic challenges can be now identified:

- * Learning is very broad in scope and approaches may vary in each of these organisations.

- * Specific learning outcomes which are written against a baseline in relation to a programme of study are not normally appropriate for all users, although intended learning outcomes can and should be devised in relation to specific projects and workshops.

- * Defining specific requirements in relation to changes in the condition or behaviour of users is not appropriate, although specific experience of skills or knowledge may be identified as potential learning outcomes for particular activities.

- * The formal assessment of the levels of attainment or achievement of users from an external (i.e. institutional) viewpoint is not appropriate.

- * Defining a moment in time when an outcome might be identified is problematic, as the end of any visit is not necessarily the end of any learning.

- * in most cases it will be the user who defines the objective of the visit and who assesses the successful achievement of those objectives. Frequently, objectives will be very unfocused or open.

4.6 These basic challenges set up a number of difficulties for the development of learning outcomes in cultural organisations. The ways in which learning outcomes are conceptualised and developed in formal settings do not fit cultural organisations, especially when the experience of all users needs to be encompassed. It is difficult to identify a moment that can be regarded as an end-point in learning and therefore an appropriate moment for measuring this learning. It is not appropriate for organisations to be prescriptive about levels of learning achievement, as users have their own criteria for what counts as successful. In addition, unexpected outcomes may occur, and in fact these surprises may provide the most profound learning.

4.7 None-the-less, it is evident that learning is taking place in cultural organisations. The issue is how to relate this learning to 'learning outcomes'; and how to 'measure' these outcomes. In addition, as museums, archives and libraries are used by both informal and self-directed users and also groups engaged in formal learning (such as school or college groups), any scheme must be able to encompass both formal and informal learning.

5. A scheme for measuring learning outcomes in museums, archives and libraries

5.1 Museums, art galleries, libraries and archives are aware of the some aspects of the experiences of their users. In many organisations visitors are interviewed or complete comments books or questionnaires. However, often the data (or evidence) that is produced is not analysed, and where it is, there are difficulties in discussing what visitors have learnt. What is lacking is a broad understanding of the scope of learning in cultural organisations, and the concepts and common language to talk about visitor learning.

5.2 Having presented Resource's understanding of learning and discussed the differences between establishing learning outcomes in formal and informal

environments it is now time to consider an approach to thinking about learning outcomes that can be used in museums, archives and libraries. This approach will build on all that has gone before, but will introduce a new idea – that of generic learning outcomes.

5.3 Following a learning experience or event, individuals talk about what has happened to them and what they feel about things in personal ways. These results of learning might be short-term or long-term; they might be intense or shallow; they may be deeply experienced such that awareness increases, attitudes and perceptions changed, or, and this is more frequent, they may confirm learners in what they already know (however mistaken others might feel this knowledge to be²¹). These personal accounts (individual learning outcomes) are susceptible to categorisation into generic learning outcomes.

5.4 The concept of generic learning outcomes is familiar in other educational fields. It used by the Quality Assurance Agency for Higher Education. The QAA Subject Review Handbook for Higher Education institutions suggests that each university subject (e.g. History, Chemistry) should provide appropriate opportunities for the achievement of learning outcomes in terms of:

- * Knowledge and understanding
- * Cognitive skills
- * Subject-specific skills (including practical/professional skills)
- * Key (transferable) skills
- * Progression to employment and further study
- * Personal development²²

5.5 The ESRC Teaching and Learning Research Programme (TLRP) also uses generic learning outcomes, and specifies broadly conceived learning outcomes as follows:

- * Development of positive learner identities
- * Acquisition of qualifications
- * Acquisition of skill, understanding and bodies of knowledge
- * Development of attitudes and values relevant to a learning society
- * Broader values and commitments relevant to individual and community development and civic concern²³

5.6 These approaches to generic learning outcomes provide an excellent starting point for the identification of generic categories for learning outcomes for museums, archives and libraries. Bearing in mind what we already know about how people use cultural sites for open learning we can adapt the QAA and the ESRC-TLRP schemes to produce a set of generic categories that may be used to describe the learning outcomes resulting from use of museums, archives and libraries. This scheme could also be used more generally across other sites of cultural learning.

²¹ See for examples of this Ohta, R. J. (1998) '“Mine eyes have seen the glory”: visitor experience at a controversial flag exhibition', *Current Trends in Audience Research and Evaluation*, 11, American Association of Museums, Committee on Audience Research and Evaluation, Los Angeles, 48-58; Hooper-Greenhill, E. and Moussouri, T. (2001) *Making Meaning in Art Museums 2: Visitors' Interpretive Strategies at Nottingham Castle Museum and Art Gallery*, RCMG, University of Leicester, 24.

²² QAA (2000) *Subject Review Handbook September 2000 to December 2001*. Gloucester: Quality Assurance Agency for Higher Education, 24.

²³ Economic and Social Research Council (2002) *The Teaching and Learning Research Programme - Specification for Phase III*, p. 1 (on-line <http://www.ex.ac.uk/ESRC-TLRP/phase3spec.htm>.)

5.7 A group of five generic categories for the outcomes of learning in museums, archives and libraries is suggested. Outcomes of learning may be group into categories concerning:

- * Knowledge and understanding
- * Skills
- * Values, attitudes, feelings
- * Creativity, inspiration, enjoyment
- * Behaviour²⁴

5.8 The groups are limited to the very broadest categories in order to allow for use in all museums, archives and libraries. At the same time, this breadth and simplicity will facilitate analysis. But this simplicity also enables the development of complexities and detail within each category. Some suggestions are given below as to what each category might encompass, but it is expected that through discussion across the domains, and through piloting of data collection and data analysis, these suggestions will be amplified. The five generic outcome categories provide a basic framework, which is not intended to be prescriptive, merely to facilitate analysis, discussion and the compilation of evidence. In some instances it may be difficult to classify or categorise learning outcomes precisely, and there is a degree of overlap in some of the suggestions below. Some outcomes of learning may overlap several categories; they may relate to or influence each other. For example, becoming more confident in using a museum or archive may lead to increased self-respect and greater independence in addition to increased knowledge. Learning is complex and we should expect and welcome this overlap.

²⁴ 'Behaviour' does not imply an acceptance of behaviourist learning theory. From a behaviourist perspective, learning is that which results in a change of behaviour as a result of an experience, and, this behaviour can be observed and measured. The model of learning and teaching that underpins most forms of behaviourism is a stimulus-response model, which is no longer regarded as an adequate way of describing learning. See Jarvis, Holford and Griffin, (1998) and Sotto (1994). The broad and holistic way in which learning is presented in this paper is underpinned by interpretivist social and educational theory. See Hooper-Greenhill, E. (ed) (1999) *The educational role of the museum*, Routledge, London; and Hooper-Greenhill, E. (2000) *Museums and the interpretation of visual culture*, Routledge, London. However, this is not to deny that observed and reported behaviour can be used as an indicator of learning; it can, and it is especially useful if it is supported by evidence gathered using other methods such as interviews.

Knowledge and understanding

subject-specific (e.g. history, science)
 between and across subjects
 specific artefacts, books, documents (Chinese scroll, vase)
 site-specific (history, geography, use of site)
 locality, neighbourhood, region, country
 self, personal matters (my family)
 others, (my neighbours past and present)

Skills

subject specific (mapping, estimating, painting)
 site-specific (how to use a library, archive, museum)
 practical (craft-based, manipulative, bodily-kinesthetic)
 transferable (working in teams, using a computer)
 key (numeracy, literacy, communication, ICT)
 critical and ethical thinking; social skills
 other cognitive skills, problem-solving skills
 emotional skills (managing anger, or powerful feelings)

Values, attitudes, feelings

motivation (to learn more, become interested, feel confident)
 about oneself (positive personal identity, self-esteem, self-respect, confidence)
 independence, sense of personal achievement, sense of self in the community
 about others (tolerance of difference)
 about museums, archives, libraries; about a subject

Creativity, inspiration, enjoyment

personal enrichment
 fun
 making new connections, lateral thinking
 generation of new ideas or actions
 making and producing things
 invention
 experimentation

Behaviour (now and in the future/looking back)

doing more of something (reading, visiting an archive, learning)
 doing something different (visiting a museum for the first time, going to college)
 bringing others (family, friends)
 working in teams
 employment, work placement

Fig. 1. Categories for the outcomes of learning in cultural organisations.(No hierarchy is intended in the list.)

5.9 These generic categories provide a scheme for the gathering, analysis and interpretation of the evidence of learning. They provide the basis for a common conceptual framework and a common language to discuss the outcomes of learning in museums, archives and libraries.

5.10 These generic categories for learning outcomes can be used to present existing evidence of learning in a new way; they can be used to focus the objectives of new projects, and the evaluations of new projects; they can be used, in conjunction with the tools the LIRP team are developing, to carry out new research; and they can be used as the basis of research on a national basis.

5.11 If the categories of generic outcomes can be agreed to be appropriate and useful across the three domains, then Resource can begin to help organisations to explore and improve their learning provision. These categories will be explored during the piloting period of the Learning Impact Research Project.

Examples of learning outcomes in each of the categories found in previous research

KNOWLEDGE/UNDERSTANDING

"I visited the archive because I am doing research for a book and I managed to do that".

Archive user. LIRP/01/CP

"Personally, I learnt a lot about Haworth and the Brontes and their novels."

Teacher, Museums and Galleries Education Programme, MGEP Research Report, p.58.

"The learning is coming through in my teaching – I'm more aware of museums than I was before. I'm more aware of curating issues."

Teacher, Museums and Galleries Education Programme, MGEP Research Report, p.52.

"I visited the museum to learn about Boyd Dawkins because we are making a video diary about him as a media studies project."

Museum visitor, Buxton. LIRP/01/JD

SKILLS

I use it for my son aged four and a half to gain experience of using a PC, learning to use the mouse, recognise an icon etc. *Library user, Dudley. Using ICT Skills web report.*

"Anne taught me a lot about ways of using artefacts – she showed me how to look historically, how to question historically..."

Teacher, Museums and Galleries Education Programme, Learning through culture, p.23.

"They found by investigating that things were not as heavy as expected.... They loved the measuring and the magnifying."

Teacher, Museums and Galleries Education Programme. Learning through culture, p.10

VALUES, ATTITUDES, FEELINGS

"Being able to come to these courses has changed me from a housewife with three children into a student with greater opportunities" (*User, Morton Library, Wirral, Using ICT Skills web report*)

"My grandfather was a member of the Raiding Support Regiment in Europe....."

Archive user, Buxton. LIRP/01/CP

"The staff are brilliant and very helpful." *Library user, Dudley.*

"From my visit to the gallery, I've learnt that there's something here for everyone and I don't think anyone could come here and not find something they'd like."

Student, Museums and Galleries Education Programme. Learning through culture, p.25.

" This is done by an Indian man, God of the Byways, and it also shows that not only the West can only draw"

Art Gallery visitor, Nottingham. Making Meaning 2, p.15

CREATIVITY/ INSPIRATION/ ENJOYMENT

"I'm retired and I read for pleasure, as a hobby."
Library user. LIRP/01/JV

"I think that the computer facilities are good and the time slots are good too."
Library user, Dudley. Using ICT Skills, web report.

"I think it was great with all the sculptures and paintings and the building was new and called SCVA and when we was at the gallery we made our own sketch book and we got into teams and we wrote all the feelings we could think about....."
Six year old gallery user. Encompass 1999-2000, postcard.

BEHAVIOUR (NOW AND FUTURE)

"I don't have a computer at home so without the library I would be a web isolate."
Library user, Dudley.

"Half-term week is bad enough, kids bored, never happy. But this half-term life was made easier by the computer suite." *User, Morton Library, Wirral.*

"I use the computer and internet for the purposes of education in general and for job search." *Library user, Dudley.*

"I found the whole experience of doing the display very productive as it helped me to work with people in a better way"
School student gallery user. Museum fever, CLMG leaflet.

"Represent gave me a job and the chance to prove it could work and I feel differently to how I used to. Museums have helped broaden my horizons....." *Youth worker on museum project. Seeing the museum through the visitors' eyes, p. 21.*