Non-Formal Learning in Museums and Galleries

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Abstract

A ubiquitous, but under-researched, phenomenon, non-formal learning represents all learning that does not fall under the heading of 'formal': that is to say that it is not an organised event or package; bound by a prescribed framework; marked by the presence of a designated teacher; or result in the award of a qualification.

This research primarily aimed to investigate how non-formal learning takes place in museums and galleries: specifically exploring the differences and characteristics of non-formal learning between different groups of people.

As well as an extensive literature review which draws together theoretical approaches from a wide range of fields/disciplines, the thesis outlines the development of a methodological tool entitled 'The Dual Model' which is a combination of models of skill acquisition and cultural capital. This model represents a new approach to the investigation of non-formal learning and this thesis explores its direct implementation as an evaluative tool.

Implicit learning (a form of learning which is unconscious, either whilst it is taking place or in terms of the knowledge subsequently created) represents a focal point for the research. By scrutinising contradictions in visitors' accounts of their museums visits, possible cases of implicit learning in context are identified and evaluated; a unique contribution to an understanding of how people learn non-formally without being aware of doing so.

The research confirms a typology of non-formal learning which differentiates between explicit and implicit components and also provides evidence that there are identifiably different sets of characteristics which individuals might exhibit based upon their cultural capital, their relationship with the art field and their level of skill acquisition.

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Chapter 1 – Introduction

1.1 Introduction

Non-formal learning can take place in any situation, at any time, and can involve anyone. This thesis sets out to investigate the phenomenon specifically with reference to museums and galleries, asking questions such as what is non-formal learning within the context of museums and galleries? How do visitors to these institutions learn non-formally? How can such learning be evaluated and studied? Section 1.2 of this chapter will go into more detail regarding the research question, whilst section 1.3 explores the specific aims and objectives of the project.

In terms of the other parts of this chapter, section 1.4 sets out the context and the basic theoretical framework in which this research sits, section 1.5 discusses the methodological approach that will be used and section 1.6 outlines the format of the remainder of the thesis chapters.

1.2 The Research Question

This research primarily aims to investigate how non-formal learning takes place in museums and galleries: specifically it aims to understand it better in context and to explore the differences and characteristics of non-formal learning between different groups of people. Originally inspired by the prevalence of evaluative tools such as the 'Generic Learning Outcomes' (GLOs) proposed by Hooper-Greenhill (2002) and encompassed within the 'Inspiring Learning for All' framework (MLA 2008a), the research seeks to move away from concepts of being able to 'measure' learning (in particular non-formal learning) and instead accepts its complexity as inherent and not easily quantifiable. The research aims to identify ways of studying non-formal learning which do not rely on the relatively shallow GLO approach of asking visitors to respond to statements such as "I discovered some new information" with a numerical value (MLA 2008c).

This section will set out why this topic is worthy of research – why a study of non-formal learning is important, especially in the context of museums

and galleries. It will highlight the original aspects of the research and outline its outcomes, both in terms of theory and practice.

Before commencing with the above tasks, it is important to briefly explicate the meaning of one of the key terms at this stage. 'Non-formal learning', the focus of the entire project, will be explored in much greater depth in later sections, but for clarification, it is normally defined as being the opposite of formal learning (Smith 1999), not satisfying any of the characteristics cited by Michael Eraut: "a prescribed learning framework"; "an organised event or package"; "the presence of a designated teacher"; "the award of a qualification"; and "the external specification of outcomes" (2000: 12).

The importance of non-formal learning, and of researching non-formal learning, largely relates to the universality of the concept: the widespread nature of such learning and the impact it has upon such a wide range of situations and people. Furthermore, it represents a hugely significant phenomenon, as Lohman stated, it is an "important way that individuals construct meaning from their experiences" (2000: 84); we are not simply referring to the learning of individual pieces of information, but to the whole process of meaning-making and of conceptual change (Posner et al. 1982).

In terms of originality, the formative nature of the domain of research is, in itself, evidence that research is both necessary and likely to be of an original nature. Whilst there has been a degree of work carried out in other fields, museology is comparatively lacking in its approach to non-formal research compared with the wealth of studies that focus on formal learning opportunities in the gallery. Furthermore, this is reflected in many museum/gallery education/learning departments whose work is often preoccupied with formal learning (as characterised by Eraut (2000), above).

In the UK the now defunct MLA (Museums, Libraries and Archives Council) tasked a 'Leading Museums' group to envisage the future for the museum sector. In a 2010 summary of that group's findings and recommendations, its chair suggested that "primarily museums are about

interactions between people ... and collections," going on to state that museums should "focus the use of space on the overall needs and wishes of visitors ... to turn them into true public learning spaces" (Schuller 2010). Whilst not entirely synonymous there are nonetheless large overlaps between nonformal learning and what Schuller called 'social learning' which he emphasised, above all else, as museums' primary concern going forward (2010).

Museums and galleries are particular, individual, spaces and should not be viewed as alternative schools. Although they have a role to play regarding formal learning opportunities, they are "unique and special environments for learning and enjoyment" (Jennings 2011). A preoccupation with formal education on the part of museum/gallery educators has meant that non-formal learning opportunities have been at times neglected.

Although aspects of non-formal learning are studied extensively in other fields – particularly those of psychology/cognitive psychology – they are often studied out of context, in laboratory settings. Perruchet and Vinter isolate a number of oft-repeated experiments, including:

- Artificial Grammar Learning;
- Dynamic system control tasks;
- Sequential reaction time tasks
- (Perruchet & Vinter 2002: 42).

These are all used as common tests in the investigation of implicit learning (a key aspect of non-formal learning) and are widely cited in research studies; however, all three are essentially laboratory experiments, focused on the individual involved and not on the context of the situation. Whilst useful to a point, I would argue that, especially in the discipline of museology, a study of non-formal learning in context is a more pertinent route forward, hence the focus of my own work.

There are two major facets to the intended outcomes of this piece of research: those related to theory and those related to practice. In terms of the former, this research is intended to advance the current state of theory relating to non-formal learning, both generally and specifically within the context of museology. Those chapters relating to a review of the literature will aim, clearly and concisely, to define what non-formal learning is, whilst the research study itself is concerned with developing an understanding of how non-formal learning takes place and how it may be evaluated.

Methodologically, there is a dearth of context-based methods appropriate for studying non-formal learning, and as such it is intended that the methodology developed and proposed in this thesis may be further advanced and utilised in future studies of the phenomenon. In particular, the creation of a model which characterises different non-formal learning behaviour according to the participant will provide a starting point for future research into how individuals learn non-formally within museums and galleries.

In terms of practice, museum and gallery education and learning departments may be the primary beneficiaries of this study, although that is not to say that museums/galleries more generally (across their individual organisations) should not give heed to some of the suggestions/recommendations/outcomes. An understanding of how people generally – and their visitors/potential visitors specifically – learn non-formally can only help museums/galleries to develop their exhibits and exhibitions, as well as their education/learning programmes, better; both in order to cater for their current visitors and in an effort to entice non-visitors. Of particular relevance will be the comparison between user-types that is undertaken as part of the research study and the attempts made to understand how and why these different types of people may learn differently.

1.3 Aims and Objectives

This section will lay out the aims and objectives of the project: the breakdown of the general research topic into more specific constituent parts. Figure 1 shows the four key aims of the project, each of which has been subsequently divided into individual objectives.

For the sake of clarity, Figure 2 outlines which chapters/sections of the thesis fulfil each of these aims and objectives.

Aims	Objectives
1. To define non- formal learning,	a) To identify the range of existing definitions of the term 'non-formal learning' and other related terms.
both generally and in context, by utilising current	b) To evaluate these definitions in context, identify similarities, crossovers and differences.
theory drawn from a range of disciplines.	c) To formulate a set of cohesive definitions of the key terms based upon a synthesis of the existing theory.
2. To identify and, if necessary, develop, a	a) To identify existing studies and research into non-formal learning and identify which methods have been used in the past.
suitable methodology in order to study non-formal	 b) To evaluate pre-existing methods used to study non-formal learning and to isolate potential routes forward based upon their appropriateness and success in previous studies.
learning in museums and galleries.	c) To conceive of (and if necessary develop) a coherent methodology in order to research non-formal learning in context.
	d) To design and carry out a research study based upon this methodology, testing the methods proposed.
3. To explore the possibility that different people	a) To incorporate a range of subjects and participants into a research study and utilise the above methodology in order to investigate a range of non-formal learning experiences.
experience and undertake non- formal learning in different ways.	b) To analyse the results of the research study and to draw comparisons between these results and previous research studies/current or past theory.
	c) To identify possible groups of people who may share similar experiences, to draw inferences regarding what factors affect non-formal learning.
	d) To propose comparisons across different groups of people, to contrast and compare the analysis of different groups.
4. To investigate	a) To summarise the practical research carried out.
how non-formal learning and non- formal learning	b) To synthesise both theory, as a result of a literature review, and analysis, based upon a research study.
experiences affect the act of visiting museums and galleries.	c) To propose conclusions and develop a plan of potential future research.

Figure 1: Aims and objectives.

Aims	Objectives	Relevant Chapter(s)
1.	a)	Chapter 2 – Literature Review: Non-Formal Learning
	b)	Chapter 2; Chapter 3 – Literature Review: Memory and the Psychology of Learning
	c)	Chapter 2; Chapter 3
2.	a)	Chapter 4 – Methodological Development: The Dual Model and Cultural Capital
	b)	Chapter 4
	c)	Chapter 4; Chapter 5 – The Research Study
	d)	Chapter 5
3.	a)	Chapter 5
	b)	Chapter 6 – Discussion: 'Modern' Art and Field Theory; Chapter 7 – Discussion: Memory; Chapter 8 – Discussion: Learning; Chapter 9 – Discussion: The Dual Model
	c)	Chapter 6; Chapter 9
	d)	Chapter 6; Chapter 9
4.	a)	Chapter 10 – Conclusions
	b)	Chapter 6; Chapter 7; Chapter 8; Chapter 9; Chapter 10
	c)	Chapter 10

Figure 2: Aims and objectives by chapter/section.

1.4 Context

Although this research focuses on museums and galleries, it is important to situate the work in relation to a number of fields, given its crossdisciplinary nature. This section will set out the context surrounding the study, highlighting the key areas that will be explored in greater depth as part of the comprehensive literature review. It will also outline some of the significant and integral texts that help position the project.

The general topic can be broken down into a number of smaller subsections which will each be dealt with in turn. These include nonformal/informal learning; learning theory; implicit learning; memory and psychology; skill acquisition; and cultural capital/field theory.

There are a multitude of approaches to non-formal and informal learning, each of which expresses the term(s) differently, and as such settling

upon a coherent definition represents a key first step. Eraut's typology (2000) will be used as a benchmark given its lucidity and its straightforward approach in terms of the differentiation he makes between 'non-formal' and 'informal'. Meanwhile, although a host of sources will be used in order to provide a comprehensive picture, the continuum from formal to non-formal provided by Rogers (2004) – placing the two terms at either end of a spectrum and allowing for graded situations as opposed to the black and white (either/or) approach favoured by some – represents a focal point.

Whilst it is clearly important to deal with the 'non-formal' aspect of the research question, the term 'learning' is hardly uncontested and represents a huge area of study across a host of disciplines (not least those related to education and learning themselves). The nature of the restricted space available means that a lengthy discussion of what learning is, is impractical, however that is not to say it will be completely omitted. As previously stated, Posner et al. described learning in terms of conceptual change (1982); Brody (2005) advanced this idea through his discussion of "cognitive bridges" echoing the concept of 'scaffolding' which was essentially proposed by Vygotsky (see Vygotsky 1978; Meyers 2005). These more developed notions of learning are certainly preferable to the transmission models of learning of the mid-twentieth century (Shannon & Weaver 1949), although there remains considerable debate as to what learning is and how it may be defined (see Sfard 1998). In keeping with the approach towards memory (see below) a psychological viewpoint will also be included and discussed in the literature review. Martin et al. describe learning as "an adaptive process in which the tendency to perform a particular behaviour is changed by experience" (2007: 266); key elements such as 'process' and 'behaviour' will be explored in depth in relation to the non-formal experiences of particular interest.

Implicit learning is one of the forms of non-formal learning described by Eraut (2000) and will be given particular emphasis given its perceived importance to the non-formal learning that takes place in museum/gallery contexts. Reber is renowned as the author of seminal texts on implicit learning, including his 1993 work *Implicit Learning and Tacit Knowledge*. Without becoming too embroiled in this very detailed and intricate work of psychology, I will utilise the theoretical understanding of implicit learning and incorporate it into the overall review.

As indicated, a psychological approach to the topic will provide the project with a unique standpoint, given a relative lack of museological studies that adopt such a stance, especially among many of the leading proponents of the field. Psychological approaches to learning are often bound up in memory studies and as such this project will address the former via the latter. Eysenck and Keane's (2005) simple model of memory (breaking it down into phases of encoding, storage and retrieval) forms a starting point which will be developed through an analysis of work by a number of proponents including Martin et al. (2007), who focus on aspects such as short- and long-term memory. Eraut (2000) adapted a model by Hovarth et al. (1996) to explore the way implicit learning utilised episodic memory (literally memory of episodes; events; experience) as opposed to semantic memory (generalisable memory, based upon knowledge) which will form an integral part of the study. Meanwhile, a physiological approach to the memory will also be briefly explored, given its proximity to cognitive psychology, drawing from texts by Goldstein (2005) amongst others for an understanding of how the chemical and electrical processes work in our brains and how this might be translated to an understanding of learning/memory.

Two areas of theory have been adopted in order to develop a methodology to study non-formal learning, the first of these is 'skill acquisition', a model of which, proposed by Dreyfus and Dreyfus (1986), forms part of the 'Dual Model' which will be explained in more detail in the next section. Originally developed as a means of proving that humans were intrinsically different from computers, the principle behind the Dreyfus model of skill acquisition is that humans have intuition which they are able to use once they become sufficiently accomplished at any given skill. In the context of nonformal learning in museums and galleries it is proposed that the ability to use a museum/gallery is itself a skill and behaviours exhibited by different gallery visitors can be hypothetically related to their level of intuition.

The second theoretical area utilised to address possible methodological approaches to non-formal learning, centres on 'cultural capital' and its associated concepts: 'habitus' and 'field theory', part of Pierre Bourdieu's oeuvre (1986). Cultural capital - a function of time invested in cultural consumption and manifested, in its embodied state, as "long-lasting dispositions of the mind and body" (ibid.: 47) – potentially provides a means of encapsulating the prior knowledge, motivations and interests of people and the way they affect one's museum/gallery visiting (or lack of visiting). Subsequently one uses habitus (described by Bourdieu as a "feel for the game" (1990: 61)) to engage in behaviour, acting within a 'field' (domains (such as 'the arts', 'law', or 'academia') in which actors are struggling for power (Smith 2001: 139)). Whilst the finer details of these terms will be discussed later, the critical aspect to bear in mind is their ability to theorise what a person 'brings to the table' as it were – the baggage they carry with them (Dudzinska-Przesmitzki & Grenier 2008: 18) - and how this affects their behaviour (and, in particular, their behaviour regards museum/gallery visiting).

I have, till now, used the terms 'museum' and 'gallery' interchangeably and before continuing it should be explained what they each refer to (in the context of this thesis). Whilst there are clearly connotations which might be drawn as to the role of galleries to specifically display artworks, I believe there is nonetheless a commonality between the two terms, and indeed there are numerous instances of 'museums' which display artworks and which blur the lines between the two 'types' of institution. One of the key aspects of the methodology, as will be discussed later in the thesis, will be to investigate what participants understand by each term, and so, rather than impose a predefined set of characteristics which relate to 'museums' and 'galleries' individually, I intend to address the two as related institutions at this stage, which are not necessarily inherently distinct.

1.5 Methodological Approach

This project is concerned with the study, the evaluation and the understanding of non-formal learning. A critical element, therefore, is represented by the development of a means to study the phenomenon.

Methodologically there are two key tenets to the research, firstly, rather than simply reviewing relevant literature, current theory will be evaluated and utilised in the development of a tool with the potential for studying non-formal learning. Secondly, a research study will be conducted in order to assess the value of this tool and also, more widely, to investigate non-formal learning in context.

Chapters 2 and 3 will focus on reviewing and analysing relevant literature; this review involved an extensive and comprehensive online search, utilising a number of databases, as well as the use of resources (in person) at the Robinson Library (Newcastle University), the British Library and the Library of Congress (Washington D.C.).

Chapter 4 provides the first detailed discussion of practical methodology: utilising the gathered theory in order to propose a dual model of skill acquisition and cultural capital. These two terms have both been briefly explored in the previous section, and will be tackled in much greater depth later. However this dual model itself has been created partly from the Dreyfus and Dreyfus model of skill acquisition (1986) and partly from a comparative model based on cultural capital. Both sides of this tool break participants into categories – ranging from 'novice' to 'expert' – and outline a number of characteristics relating to each of these levels. The approach attempts to combine participants' ability to behave in a certain way with their prior knowledge/motivations in order to evaluate and, hypothetically, provide a means of understanding, their non-formal learning behaviour.

Whilst designing/developing a tool that may be capable of investigating non-formal learning is an important aspect of the project, carrying out a programme of data collection with actual participants regarding their own nonformal learning experiences – with a view to understanding how different people use museums and galleries differently – is equally, if not more so, vital, bearing in mind the overall aspirations of this thesis. The exact details of the research study that will be carried out are discussed in later chapters; however the basic approach is outlined here (the rationale behind the choices made is

also explored later). A qualitative approach has been implemented as opposed to either a quantitative or combined one, reflecting the individualism of museum/gallery visitors' experiences and the complexity of non-formal learning in these situations; it was decided participants' narratives would be a critical aspect of analysis when dealing with the rather ephemeral concept (Silverman 2005).

In keeping with the qualitative approach, it was decided that a series of interviews would be carried out, with groups of people from differing ends of the scale, as based upon the dual model (that is to say, 'novices' and 'experts'). These interviews focused on participants' experiences relating to museums and galleries, as well as their feelings/thoughts on such institutions and the act of visiting. There were strong links between the format of the interviews, the types of questions asked, and the dual model (or rather, the characteristics of different levels on the model).

In terms of the analysis of the data gathered from the research study, grounded theory methods were adopted. Because of the intended outcomes of the project – i.e. not specifically trying to prove a given hypothesis but instead investigating a phenomenon with a relatively wide brief – grounded theory was considered the most appropriate route given the fact it allowed for the construction of theories "grounded in the data themselves" (Charmaz 2006: 2) as opposed to trying to either force data to fit particular hypotheses or using it to prove/disprove pre-determined theoretical standpoints. In addition previously identified themes, especially drawn from the dual model, were used in order to structure a further strain of analysis.

Because of the formative nature of the research project and the domain in general (of non-formal learning in museum/gallery studies) the methodological approach was far from formulaic and had, instead, to be somewhat experimental. As a result, whilst the dual model was conceived of as a tool for potentially studying the phenomenon, a decision was taken not to pigeonhole the research solely into this channel and instead to use techniques

such as grounded theory in the analysis of data in order to produce a range of outcomes, which are explored across the discussion chapters later in this thesis.

1.6 Thesis Outline

There are three broad components to the thesis from this point forward, comprising a total of 9 chapters. The first of these forms a comprehensive literature review, composed of 'Chapter 2 – Non-Formal Learning' and 'Chapter 3 – Memory and the Psychology of Learning'. As well as describing and evaluating literature relevant to the project, helping to place the research in context, these two chapters will draw together existing research and theory from a range of domains – not least museology and psychology – in order to propose new ways of addressing non-formal learning. The first of the two chapters will focus on defining terminology and literature associated with the topic more broadly, whilst the second focuses specifically on memory and a psychological approach towards learning, and aspects of non-formal learning.

The second overarching aspect of this thesis deals with the methodological approach to the topic, divided into 'Chapter 4 – Methodological Development: The Dual Model and Cultural Capital' and 'Chapter 5 – The Research Study'. The former merges models of skill acquisition and cultural capital in order to propose a dual model of non-formal learning, as well as highlighting methodological approaches, whilst the latter is concerned with the research study itself: the actual method and practical data collection. In addition, Chapter 4 contains a discussion of literature relating to skill acquisition, cultural capital, field theory and habitus; in order to properly frame the methodological development.

Finally, the third group of chapters is concerned with the discussion and conclusion elements of the thesis, split into the following: 'Chapter 6 – Discussion: 'Modern' Art and Field Theory'; 'Chapter 7 – Discussion: Memory'; 'Chapter 8 – Discussion: Learning'; 'Chapter 9 – Discussion: The Dual Model'; and 'Chapter 10 – Conclusions'. The discussion-based chapters all take data gathered from the research study and interpret it in the context of the wider project. Chapter 6 explores the relationship participants had with 'modern' or

contemporary art and proposes a way of understanding behaviour through 'fields'. Chapters 7 and 8 attempt to bring together psychological studies of learning and memory with museological perspectives, in the context of the data gathered. These chapters apply theory often derived from laboratory settings to the 'real-world'. The fourth, and final, discussion, Chapter 9 returns to the dual model of skill acquisition and cultural capital and tests the usefulness and validity of this model. It investigates the way of differentiating people according to 'levels' and evaluates the model as a means of conceptualising non-formal learning in the context of museum/gallery visiting. Chapter 10 pulls together a number of conclusions, based upon these prior discussion sections and with reference to the original research question/aims and objectives. It brings the thesis to a coherent close, highlighting the outcomes of the study whilst proposing future research paths.

Chapter 2 - Literature Review: Non-Formal Learning

2.1 Introduction

This chapter comprises a review of literature pertaining to, specifically, non-formal learning. It will investigate both the 'non-formal' and the 'learning' components of the title as well as considering the contextual element of non-formal learning in museum/gallery environments.

Although formal forms of learning and education constitute the central premise of the bulk of much of the literature, in the last decade or so there has been an acceptance that non-formal learning experiences within the gallery might be worthy of study. Bjørnåvold wrote in 2000 that "during the past few years the issue of identification, assessment and recognition of non-formal learning has been brought to the forefront of European debates on education, training and learning" (2000: 9), which contrasts this predominant focus on formalised programmes and forms of learning, especially within museology (e.g. Burnham & Kai-Kee 2011).

This chapter is divided into five sub-sections, the first of these, 2.2, deals with definitions of the term 'non-formal' itself and an examination of literature relating to the terminological aspects of non-formal and informal learning. There is then a section which reviews literature related to the concepts of 'intelligence' and 'learning', 2.3, followed by an outline of the field of learning theories, 2.4 (the latter necessarily being only a brief exploration of a vast area). Non-formal learning in context (specifically the context of museum/gallery visiting) forms the basis of section 2.5, whilst the final part of the chapter, 2.6, deals with the concepts of implicit learning and tacit knowledge (which are introduced as aspects of non-formal learning by Eraut (2000)).

2.2 Non-Formal Learning - Definitions

A key aim of this literature review generally, and specifically of this section, will be to define the term 'non-formal' and explain how non-formal learning relates to museums and galleries.

Whilst some authors do not advise such an approach – "rather than contributing to the on-going debates over the correct terminology, I would argue that scholars would do well to focus interest on the fuzziness of the term" (Drotner 2008: 15) – I believe it is a necessary first-step in order to clarify the basis for this project.

Defining non-formal learning is not a straightforward process and in much of the literature on the subject it is often characterised purely through its polarity to formal learning (Smith 1999). Non-formal learning, or informal learning (which are distinguished from each other below, but in this instance should be understood as interchangeable), is described by Shapiro as learning which takes place externally from the context of formal learning (2003). As such, it is useful to detail what is meant by formal learning: Eraut categorises it as having five essential characteristics, which are "a prescribed learning framework"; "an organised event or package"; "the presence of a designated teacher"; "the award of a qualification"; and "the external specification of outcomes" (2000: 12). Defining a term purely by its antithesis is not an ideal means of description, although it does capture the "vast potential" and broadness of non-formal learning to be explored (Turner 2006: 424). Folkestad has suggested that "formal – informal should not be regarded as a dichotomy, but rather as the two poles of a continuum; in most learning situations, both these aspects of learning are in various degrees present and interacting" (2006: 135).

Schugurensky expresses the distinction between formal and non-formal education (which, although not a synonym for learning, shares parallel distinctions between the formal and non-formal) through their opposition: formal education is "highly institutionalized"; is organised in levels which must be completed consecutively; and consists of grading and qualifications at the completion of each level, whilst non-formal education refers to everything "outside of the formal school system" (2000).

As previously mentioned, the terms 'informal' and 'non-formal' are both used in the literature, and are used varyingly. There are two dominant

interpretations: firstly, that the terms are essentially interchangeable and that both simply refer to all learning that is not formal, and secondly, that they are instead different degrees on a continuum, which begins at formal, progresses through non-formal and ends at informal (see Figure 3).

In order to illustrate the first case it is worth considering the views of Cseh et al., who refer to informal learning as that which occurs when a person controls their own learning, in everyday life; they do not discuss the possibility of a further category of non-formal learning given the broadness of their informal definition (1999). Meanwhile, Falk et al. suggest that museums are often described as informal settings, whilst parks fall into the bracket of non-formal settings – they accept that definitions exist which distinguish between the terms – but because of their common usage as synonyms, resolve to treat them as such in their work (2009: 5).

The other side of the argument, the second instance mentioned above, utilises clear distinctions, which place non-formal and informal learning in opposition, not just to formal learning, but also to each other. A wide range of literature concerns itself with the terms 'informal' and 'non-formal' and their competition for "priority of use" (Drotner 2008: 15).

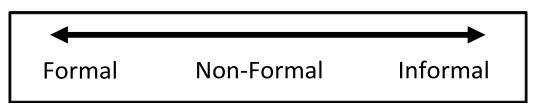


Figure 3: Learning continuum (Rogers 2004).

There are a number of authors who provide lucid descriptions of these three categories (e.g. Schugurensky 2000, Chisholm 2008) of which one of the simplest appears in the European Commission's work on validation of lifelong learning, adopting the following definitions:

Non-formal Learning: Learning that is not provided by an education or training institution and typically does not lead to certification. It is, however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's perspective (European Commission 2001: 33).

Informal Learning: Learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or 'incidental'/random) (European Commission 2001: 32).

These draw a very definite line which prompted Eneroth's work on nonformal and informal 'worlds': the non-formal/informal/formal distinctions providing the contextual, and even ontological, settings underlying the three different strands of learning (2008). Eneroth also introduced a third dimension, relating to the type of knowledge produced in each world and as a result of each type of learning. This complicated approach is perhaps counter-intuitive in that it does not serve to clarify the issue and aid one's understanding – surely the ultimate aim of any representation.

In contrast, Eraut (2000) advocates the overarching use of the term 'non-formal' due to the pre-existing colloquial uses of the word informal (e.g. its associations with features such as attitude, behaviour, dress etc., and the concept of 'informalism' (Allsup 2008)) and a desire to avoid any confusion; he breaks the term down into further distinctions, encapsulating both the definitions used above (see Figure 4). I believe this to be the most useful approach to non-formal/informal learning: avoiding the need to delineate between potentially similar instances, and instead simply defining the concept in opposition to formal learning (which by comparison has a much more straightforward and less controversial definition).

Eraut is not alone in splitting non-formal learning into constituent parts; Schugurensky notes the presence of three forms which he describes as "selfdirected learning", "incidental learning" and "socialization" (2000). These three levels are essentially characterised as being intentional and conscious in the case of the former, unintentional but conscious in the case of incidental learning, and unintentional and unconscious in the case of the latter – which broadly means that they correspond to the typology of non-formal learning proposed by Eraut (see Figure 4 below). Likewise, Turner talks about there

being at least three components, which are non-taught learning, learning through experience and implicit learning (2006).

Time of	Deliberative learning	Reactive Learning	Implicit learning
Stimulus			
Past	Review of past actions,	Brief near-spontaneous	Implicit linkage
episode(s)	communications,	reflection on past	of past memories
	events' experiences.	episodes,	with current
	More systematic	communications,	experience.
	reflection.	events, experiences.	
Current	Engagement in decision	Incidental noting of	A selection from
experience	making, problem	facts, opinions,	experience
	solving, planned	impressions, ideas.	enters the
	informal learning.	Recognition of learning	memory.
		opportunities.	
Future	Planned learning goals.	Being prepared for	Unconscious
behaviour	Planned learning	emergent learning	effect of previous
	opportunities.	opportunities.	experiences.

Figure 4: Typology of non-formal learning (Eraut 2000: 13).

Eraut's typology combines three different types of learning (all of which fall into the non-formal bracket) with their position, contextually, in terms of time (relating to either a past, current or future experience). The key distinction, across the three types of learning, is fundamentally an issue of intention: deliberative learning is that which learners intend to undertake most strongly, whilst implicit learning is an entirely unintentional process (with reactive learning falling somewhere in between).

Of these differing components, the key aspect, in this project, will be implicit learning. When considering the project's aims and objectives, Eraut's compartmentalisation of non-formal learning highlights implicit learning as the one form which is most relevant: when considering the context of museums and galleries, it is this which stands out as the most important for study given the lack of research currently in existence and its pertinence in understanding the whole of a non-formal visit to a museum/gallery from the perspective of an individual.

In addition to the expressions 'non-formal' and 'informal' learning, other authors have used a variety of terms to describe similar phenomena, which are useful to consider; these include 'free-choice', 'experiential', 'incidental' and 'self-directed' learning. Strongly advocated by Falk and Dierking, free-choice learning (FCL) is one of the most prevalent concepts, encompassing an extremely broad view of learning which includes: "shifts in attitudes, values and beliefs"; "aesthetic understanding"; "psychomotor skills"; "sociocultural dimensions"; and "how to think critically and refine one's learning skills" (2002: 5). They specifically describe FCL as "the learning people do when they get to control what to learn, when to learn, where to learn, and with whom to learn" (ibid.: 6). Highlighted as the most dominant form of learning, FCL as described by Falk and Dierking, neglects any form of learning of which the learner is not aware – they emphasise the fact that a person has both choice and control (Falk 2005) – and do not leave room for, or recognise as important, non-formal or implicit learning which happens either without the control or without the consciousness of individuals. Furthermore, as Meyers points out, the portrayal of social learning in the FCL model as a more advanced learner helping someone less developed to 'increase' their learning is problematic:

> When one person believes their ideas are more useful for understanding a situation, and wishes to help another understand the situation by sharing their ideas it is not necessary or helpful to characterize one as more developmentally advanced than the other (Meyers 2005: 317).

Experiential learning is, as the etymology of the word suggests, concerned with learning from experience; normally direct, or primary, experience (Kolb 1984) that either occurs in the normal course of one's life or is sponsored by an institution as part of a training or teaching programme (Smith 2001). Clearly the former situation bears the most relevance to a study of nonformal learning in museums and galleries, which is expressly not institution led; however, despite accepting that experiential learning distinguishes "nondirected informal life experience from formal education," Fenwick still claims (albeit "uncomfortably") there must be a form of educator present in order to facilitate experiential learning (2000: 243-5). This contradicts potential cases of non-formal learning in which a visitor can undertake an entire visit to a museum or gallery without talking to or engaging with another person and still learn implicitly (and whilst a relatively rare occurrence, a visit to a larger

institution (such as Tate Modern, where one can enter without even passing an information desk/point) can involve no such direct engagement with others).

Marsick et al. contrast informal learning with incidental learning (1999), an interesting distinction which is delineated fully in the table below (see Figure 5). The authors take a number of existing concepts and subsume them into their model. In terms of the Eraut typology (see Figure 4) 'informal learning' can be seen as encompassing the categories of 'reactive' and 'deliberative' learning, whilst 'incidental learning' is roughly an equivalent to implicit learning. Indeed, the dichotomy highlighted here by Marsick et al. brings to the fore the important distinction within non-formal learning in museums and galleries: the difference between learning involving some level of control and consciousness, and learning where an individual is lacking either control or consciousness. This key contrast, more so than any between reactive and deliberative learning, will be the focal point of this research. Whilst there appears little wrong with the concept of incidental learning, its similarities to implicit learning, and the depth of existing research which utilises the terminology of implicit learning, count against it in any consideration of which terms to prioritise here.

	Informal Learning	Incidental Learning
Definitions	Learning that is predominantly experiential and non- institutional.	Learning that is unintentional, a by-product of another activity.
Differences from formal learning	Differs by degree of control exercised by the learner, location (not classroom based), and predictability of outcomes.	Differs by degree, since it is a subset of informal learning. It is tacit, taken for granted, and implicit in assumptions and actions.
Examples	Self-directed learning, networking, coaching, mentoring, performance planning, and trial and error.	Learning from mistakes, assumptions, beliefs, attributions, internalized meaning constructions about the action of others, hidden curriculum in formal learning.

Figure 5: Comparison of informal and incidental learning (Marsick et al. 1999).

Included in the above table as an example of informal learning, 'selfdirected learning' (SDL) is defined by Knowles as a process whereby individuals diagnose their own learning needs, identifying the means of satisfying those needs and then evaluating the outcomes (1975). It is distanced from FCL by Banz, who viewed SDL as a broader framework which can be used to understand learning in both formal and informal environments and which is most certainly not incidental (2008). He makes the point that this approach to learning can be both important and useful for museums given their need to continue expanding their audience (ibid.: 45). Whilst Banz highlights the predominant view of FCL as occurring in informal environments, which he cites as one of the weaknesses of the concept, this is not the case when considering implicit learning. There is nothing to stop implicit learning from taking place in any kind of milieu, regardless of its formality, and from retaining its status as a non-formal type of learning; the majority of definitions of non-formal learning do not preclude it taking place in formal situations, potentially alongside formal learning.

There clearly exists, within the body of literature discussed, a series of concepts which overlap and share characteristics at various points, which are broadly summarised in Figure 6, categorised in order of some of their leading proponents. The Chisholm (2008) and Eraut (2000) models have been discussed at length, meanwhile the Banz model of SDL (2008) shows his belief that self-directed learning could take place in both formal and non-formal situations, but was distinct from incidental learning. The Marsick et al. model inverts informal learning, placing it in the centre of the scale and contrasting it to the concept of 'incidental learning'; whilst the Falk model (2005) shows how non-formal/informal learning has been replaced by FCL. Finally, the Fenwick model (2000) acknowledges that experiential learning is distinct from formal learning, but does not include what is referred to by other authors as incidental, or implicit, learning.

Although Figure 6 provides a basic comparison, it should not be assumed that any term occurring in more than one model means exactly the same thing, and it should be viewed only as an approximation of the literature. However, it does help explicate the way in which the terms non-formal and implicit learning will be used in this project, given that they will be based upon

the Eraut (2000) model, and it shows how this interpretation relates to the remainder of the relevant literature.

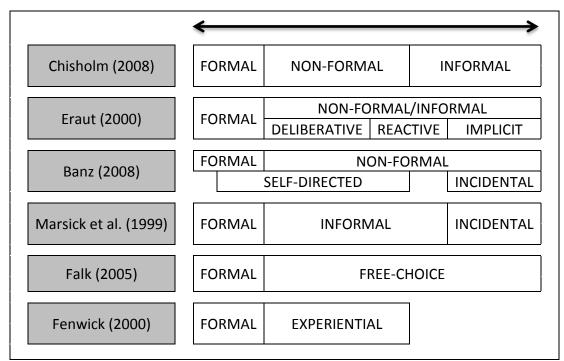


Figure 6: Table of key learning definitions/distinctions.

2.3 Learning & Intelligence

For reasons of pragmatism, the term 'learning' has been used without explanation up till now; however, it would be misplaced to blindly accept any aspect of the research question without further analysis, and indeed the term 'learning' is highly debated and it is an important undertaking to clarify what exactly is meant by it in the context of this research.

This section will seek to explore the various interpretations of the concept 'learning', discuss alternative ways of thinking about what happens in the context of non-formal visits to museums, and look at related concepts such as those of 'intelligence' and 'knowledge'.

Without wishing to appear trite, it is useful to begin with the dictionary definition of learning, which describes the verb to learn as to "acquire knowledge of or skill in (something) through study or experience or by being taught; commit to memory; become aware of by information or from observation" (The Concise Oxford English Dictionary 2008). This definition is somewhat constricted and leaves little room for the inclusion of certain facets

of non-formal learning, indeed this definition places considerable emphasis on being aware of the learning or acquired knowledge – the antithesis of implicit learning. As such, it is subsequently useful to cast the net further in search of a definition of learning which can satisfactorily be incorporated into the project.

Posner et al. refer to learning as a conceptual change (1982), which is expanded upon by Brody, who described the reorganisation of concepts "at the core of the complex cognitive system" as the linkage of new concepts to existing relevant knowledge (2005: 605-6); summarising neatly that the:

> Learner's relevant prior conceptions can help form a cognitive anchor from new information acquired. The new associations then help build cognitive bridges for future understanding (Brody 2005: 606).

This concept of cognitive 'bridge building' takes into account what is happening in the brain as a result of learning, but does not deal wholly with what the outcomes of this are. In contrast, Chisholm discusses learning in terms of outcome-related processes (2008), she describes learning as one of three processes: "learning something one did not know beforehand, whether cognitive, affective or practical"; "building upon existing knowledge and competence"; or "learning to understand and act differently by placing elements in new relationships to each other" (ibid.: 140). It is important to consider the fact that 'learning' covers a hugely detailed process composed of many elements, and defining it can take the form of attempting to define the whole process; defining what happens at source or what happens in the brain; or defining the process by its outcomes. Continuing with the latter of these potential means of definition, Knowles et al. describe learning as a process resulting in a change of behaviour, utilising concepts such as "growth"; "developments of competencies"; and "fulfilment of potential" (2005), whilst Martin et al. also cite behavioural change in their definition of learning as "an adaptive process in which the tendency to perform a particular behaviour is changed by experience" (2007: 266).

Sfard tackles head-on the issue of how to define learning in her 1998 article concerning two dominant metaphors for learning; she underlines two

distinct approaches: the acquisition metaphor and the participation metaphor. These two metaphors are compared below (see Figure 7).

Acquisition Metaphor		Participation Metaphor
Individual enrichment	Goal of Learning	Community building
Acquisition of something	Learning	Becoming a participant
Recipient (consumer), (re-)constructor	Student	Peripheral participant, apprentice
Provider, facilitator, mediator	Teacher	Expert participant, preserver of practice/discourse
Property, possession, commodity (individual, public)	Knowledge, concept	Aspect of practice/ discourse/ activity
Having, possessing	Knowing	Belonging, participating, communicating

Figure 7: Comparison of learning metaphors (Sfard 1998: 7).

Put simply, the two metaphors refer to learning as, in the case of the acquisition metaphor, the acquiring of something (knowledge) and, in the case of the participation metaphor, the participating in something (community). Broadly speaking, these two approaches share much with (although are certainly not identical to) the transmission and constructivist models of learning that formed much of the debate in the latter part of the twentieth century. The transmission model suggested that knowledge could be passed (transmitted) from source to source (Shannon & Weaver 1949), whilst the constructivist model suggested that learning was a process of construction or scaffolding (building upon previous knowledge), undertaken by a learner in collaboration with others (Anderson et al. 2003). Whilst the transmission model has been widely criticised (e.g. Chandler 1994), Sfard does not argue for a complete dismissal of the acquisition metaphor and, certainly, the idea that one can 'gain' knowledge does not seem wholly inappropriate; instead she advocates utilising both metaphors in synchronisation.

Whilst Sfard's approach prioritises inclusivity, Falk et al. (2009) adopt a similarly broad platform from which to study the topic (a favourable option given the specificity of the actual type of learning being studied and the

context-specific nature of museums and galleries). They state that "learning, although a difficult term ... will be defined as a personally and socially constructed mechanism for making meaning in the physical world ... [including] changes in cognition, affect, attitudes, and behaviour" (ibid.: 6). This view of learning as a form of 'meaning making' enables one to understand it not as a one-way process – the learner synonymous with a vessel to be filled (Dickens 1869) – but instead as an active participator, making/constructing meaning which results in changes. As previously mentioned, this is a relatively broad definition which, for practical reasons, may be useful to adopt: encapsulating potentially measurable aspects, described as changes of behaviour and attitude.

There are a wide range of theories, which stray further from the generally accepted paths in their definitions and conceptions of learning, which will also be considered here. One such approach was conceived of by Kang, who proposed a theory of 'Rhizoactivity' based upon the relationship between a learner and their context (2007) which has been visualised in Figure 8. He stated that it was "unlikely that we can produce a comprehensive theory of learning out of given theories" and as a result developed his own hypothesis that the activity of learning happened on a "leaking surface" between the learner and the context – "where the individual learner is constrained by and enabled to shape the context" (ibid.: 216). He described the "lines of flight" drawn upon the "leaking and amorphous surface" as 'Rhizoactivity'; a constant process of change which has, here, replaced the concept of learning (ibid.: 214).

Kang does not concentrate on practical aspects of learning and does not transpose his theory into a non-abstract format, which makes it impractical in some respects when considering its potential use in a research study. However, his relatively new approach to the relationship between a learner and his/her context is one which draws attention to this key element of the learning scenario.

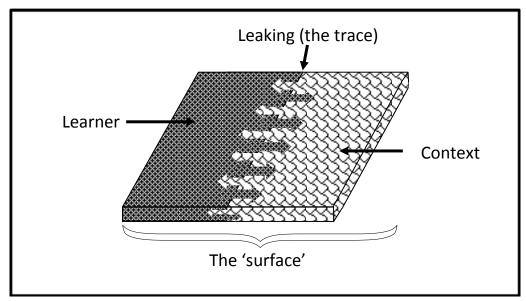


Figure 8: Kang's theory of Rhizoactivity (2007).

Similarly, Paris and Mercer explore the concept of 'transactions', in their case between people and objects (2002). This shared approach towards learning, which focuses on either the transaction or 'leak' between an individual and either the context or a specific contextual element, represents a break from much of the literature which instead focuses on learning from either an individual's point of view or from that of the institution/overarching learning 'provider'.

Transactions with objects might evoke tangential, unintended, or novel responses and might change the knowledge, beliefs, or attitudes of the visitors. Learning about the object in a unidirectional manner from viewer to object is not as important as creating personally relevant transactions with objects that allow bidirectional influences (Paris & Mercer 2002: 401).

The idea of a transaction appears more all-encompassing than simply focusing on learning from the point of view of one of the protagonists. Paris and Mercer's approach is relatively unique in the way that they address the issue of objects in museums and galleries and the way that they affect learning; describing the latter in terms which personify the object, giving it the ability to 'interact' with museum visitors (the term 'transaction' implying an exchange (Oxford Dictionaries 2010)).

Meanwhile, Fienberg and Leinhardt consider how to actually study learning, and propose a measure of it as 'conversational elaboration' (2002). They describe conversational elaboration in terms of its composition of three interconnecting elements: "the nature of a visitor's identity"; "the structure of the learning environment"; and "the degree of exploratory engagement" (ibid.: 167). They contend that expanded, more elaborated, conversations "support a sense of connectedness of visitors to the museum content and to each other" (ibid.: 210), an approach which echoes the notion of a transaction between museum content and visitors, although replacing the terminology of 'transaction' with 'connection'; this is perhaps a more appropriate description since it does not emphasise the exchange of something, but instead prioritises the bond between an individual and the museum content.

It is also worth considering Vygotsky's 'Zone of Proximal Development' at this point (see Figure 9) (1978). His basic theory argued that beyond a person's actual developmental level was a zone of potential development, which was intrinsically limited. With help from those around, a person could build upon their existing level of development but could only 'learn' things that were within their zone of proximal development. This presents an interesting situation when considering non-formal 'learning' in museums and galleries, where the factors which help define this zone of proximal development are not necessarily present (such as capable peers). As such, it is not entirely clear whether this theory is useful in a non-formal setting. Vygotsky believed that learning was "more than the acquisition of the ability to think; it is the acquisition of many specialized abilities for thinking about a variety of things" (1978: 83): a contextual view of learning as being specific to the task at hand, which will be considered in more depth as part of the discussion on skill acquisition (see Chapter 4).

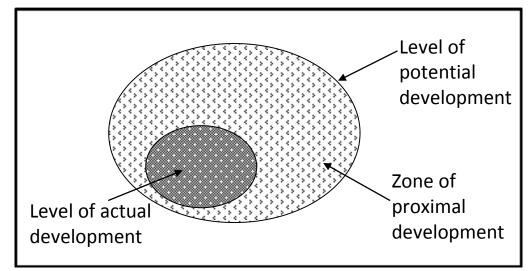


Figure 9: The zone of proximal development (adapted from Vygotsky 1978).

Meanwhile, Martin et al. discuss the acquisition of knowledge, describing learning as either a 'deep' or 'shallow' process:

Shallow Learning: the acquisition of knowledge and storing of information for later use (Martin et al. 2007: 292).

Deep Learning: Making sense, taking meaning, interpretation and understanding (Martin et al. 2007: 293).

Essentially they compare the act of taking meaning from something and simply trying to remember it. The two forms of learning proposed by Martin et al., although useful in some contexts, as with many learning theories, have limited relevance when considering non-formal, or specifically implicit, learning, which the learner may have no control and/or consciousness over/of.

In terms of intelligence, Adey et al. discussed different types of intelligence (crystallised and fluid) which served different purposes/roles in their paper of 2007. Of particular interest is their definition of fluid intelligence as an "ability to construct and use goal-relevant and appropriate mental structures and skills and the responsiveness of the developing brain to environmental stimuli" (ibid.: 78). Although there is understandably a focus on process when thinking about non-formal learning in museums and galleries, it is important to consider outcomes, and an assumed outcome of learning is intelligence, of which Adey et al. believe 'fluid intelligence' to be one type. Neisser et al. defined intelligence as a person's ability not just to learn and remember information, but also to recognise concepts and the connections

between concepts, and to apply information in order to change their own behaviour (1996); making it a term that encapsulates both the existing/developed ability a person has and the way they use that ability. This definition brings into focus the key issue, which is, when using the term 'learning', what parts of the process are actually being described? And, also, what exactly is the 'process' taking place? These issues will be covered in more depth in Chapter 3.

Shiraev and Levy adopt a broad definition of the term intelligence, incorporating "knowing and understanding the reality"; "mental skills that help individuals to reach individual goals"; "an ability to use knowledge and skills in order to overcome obstacles"; and helping "in the adaptation to changing conditions" (2010: 121). They suggest intelligence is inseparable from cognition, described as a "diversified process by which the individual acquires and applies knowledge" and go on to state that "intelligence cannot be meaningfully understood outside its cultural context (ibid.: 121-3).

Clearly the context and environmental stimuli are important factors to bear in mind when investigating a phenomenon from the perspective of its role in a specific context (museums and galleries), and as such it would seem fluid intelligence, given its relationship with the environment, is potentially worthy of further study. However, in much the same way that Eraut argued against the use of the term 'informal' because of people's prior conceptions of the word (2000), there is a case to be made against adopting the term intelligence in this project given some of its commonly accepted definitions. 'Intelligence' is often used to describe how clever someone is, and a person possessing intelligence would normally be regarded as a person who knows a lot. As such, attempting to utilise the term in order to best describe how people more generally use their brains and adapt their behaviour could cause confusion, hence the decision to refer, in the main, to 'learning'.

2.4 Theories of Learning

This sub-section is concerned with pre-developed theories of learning, specifically relating to how individuals learn and the concept of 'learning styles'

as a means of characterisation. As Uttal points out "the main problem in developing a taxonomy of learning types is that there are a virtually unlimited number of procedures that can be used to evaluate one form or another of learning" (2011: 188), and indeed there are a vast number of such taxonomies in existence. Subsequently, given the inherent limitations of this medium, it would be inappropriate to go into great depth concerning the wider field of learning styles: Coffield et al.'s extensive study identified 71 different models drawn from over 800 references (2004: 1-6). Instead, I will aim to touch upon some of the – historically – key theories and discuss their relevance in terms of this study (as well as the relevance in general of identifying individual learning styles). Learning theories are often adopted in formal situations, as this definition by Bigge and Shermis accentuates:

A learning theory, then, is a systematic integrated outlook in regard to the nature of the process whereby people relate to their environments in such a way as to enhance their ability to use both themselves and their environments in a most effective way (Bigge & Shermis 2004: 3).

I will focus on three theories here, selected because – although all relevant to formalised learning situations – they have often been adopted in informal/non-formal contexts. The first of these is Kolb's theory of experiential learning, or rather, more specifically, his four-stage model of a learning cycle (1984: 21). Kolb theorised that four combinations of perceiving/processing determined four different styles, which together made up a cycle; characterised as 'feeling', 'watching', 'thinking', and 'doing' (Kolb 1984). It should be noted that, whilst I have discussed experiential learning previously, it is important to differentiate between the theory and the instrument (Coffield et al. 2004: 70), the latter of which this section is concerned with. A relatively simple model, the Kolb theory has received considerable criticism (see Moon 2004: 114-5), not least because of this apparent simplicity which "has generated complexity, controversy and an enduring and frustrating lack of clarity" (Coffield et al. 2004: 70).

The second theory I will introduce is Fleming's 'VARK' system of learners (2011). Standing for 'visual'; 'aural'; 'reading/writing'; and 'kinaesthetic', the

theory suggests that everyone has a preference for learning in one or more of these ways (ibid.). It should be pointed out that this theory originally described learning styles using only the constituents of 'VAK' and has since been modified. As with the Kolb model, there has been considerable criticism of the VARK/VAK learning styles theory, not least from a neuroscientific perspective:

The implicit assumption in VAK is that the information gained through one sensory modality is processed in the brain independently from information gained through the other sensory modalities, and this is learned independently. All this is false ... an exclusive pedagogic focus on one sensory modality at a time is impossible given the brain's natural interconnectivity (Geake 2009: 74-5).

Such criticism ultimately leads to the view that "focusing on learning styles as defined by sensory modalities may be a wasted effort" (Krätzig & Arbuthnott 2006: 245).

The third theory, then, included here, is Gardner's theory of 'Multiple Intelligences' (1983). Gardner differentiated intelligence into various modalities based upon cognitive structure, which is not wholly dissimilar to the VARK system outlined above. Gardner identified eight intelligences: 'spatial'; 'linguistic'; 'logical-mathematical'; 'bodily-kinaesthetic'; 'musical'; 'interpersonal'; 'intrapersonal'; and 'naturalistic' (ibid.). Geake suggests that Gardner's splitting of intelligences does not reflect what is actually happening in our brains in terms of the separation of these subject areas: "the mistake with MI as a model ... is that the way that the brain goes about the multiple functions does not map on to how we see such functional divisions from the outside, or even introspectively from the inside" (2009: 78).

Whilst these three theories have all been widely discredited by some, they are nonetheless still often adopted by practitioners across a range of fields. Although this project is concerned with individual learning experiences and developing an understanding of how people learn non-formally, much of the literature on learning styles and related to theories of how individuals learn, involves "inflated claims and sweeping conclusions which go beyond the current knowledge base and the specific recommendations of particular

theorists" (Coffield et al. 2004: 119). One of the key concerns regarding many of the learning styles – both those listed here and others – concerns the lack of objectivity of many of the associated tests of these theories. Many of these tests assert that they 'measure' the learning preferences of participants, despite the fact that these "'measurements' are derived from the subjective judgements which [participants] make about themselves in response to the test items when they 'report on themselves'" (ibid.: 127). Given that these theories of learning/learning styles base themselves upon measuring learning and categorising individuals according to one or other modality, the validity and reliability of the entire theories can be called into question based upon their dubious foundations. Furthermore the breadth and range of such learning theories conceals the relatively isolationist nature of the area:

> The field of learning styles consists of a wide variety of approaches that stem from different perspectives which have some underlying similarities and some conceptual overlap. There are numerous groups working in isolation from each other and, with few exceptions, from mainstream research in psychology (Coffield et al. 2004: 136).

In particular, the latter point that Coffield makes is especially relevant – given the aim of this project to link psychological research to the study of non-formal learning (see Chapter 3).

2.5 Non-Formal Learning in Context

This section aims to explore the contextual aspects of non-formal learning with relevance to this project, and its investigation into museums and galleries, as Bjørnåvold noted, "learning is contextual in character" (2000: 33). Falk and Dierking emphasised the importance of context, relating to museums, when detailing their 'contextual model of learning' (2000: 10).

The individuality of the museum setting is emphasised by a variety of commentators including Sir Nicholas Serota (Director of the Tate), who described museums as offering a 'third space' (away from school or home) where accreditation/qualifications were not needed and "different, more personal approaches can be explored" (2009: 23). Similarly, Briseňo-Garzón et al. discuss museums' potential to make contributions "to the development of

interest, enthusiasm, motivation, eagerness to learn, awareness and general openness and alertness" (2007: 301). Despite such praise and acknowledgement of museums as uniquely inspirational places, there remains a relative lack of research which really examines what museums are able to offer, in terms of non-formal learning, in a critical way and which genuinely seeks to explain why museums are such unique environments. Instead, there is a predominance of literature that approaches non-formal/informal learning in museums/galleries with the aim, seemingly, to simply quantify the processes taking place.

Strong ties between museum education and funding (Semmel 2010), especially in the UK (e.g. ACE 2010), and the subsequent need to justify museums' role and presence in funding applications, has led to a drive in some quarters to quantify museum learning. The Generic Learning Outcomes (GLOs) (Hooper-Greenhill 2002), were adopted by the Museums, Libraries and Archives Council (MLA) as a set of outcomes which all museum visits (whether formal or not) should seek to achieve, encompassing "knowledge and understanding"; "skills"; "attitudes and values"; "enjoyment, inspiration and creativity"; and "activity, behaviour and progression" (MLA 2008a). This set of outcomes represents a severely limited way of understanding learning in museums, and the methods for collecting data (ibid.) involve a degree of superficiality which largely neglects the concept of implicit learning. Furthermore, given the range of institutions which utilise the GLOs in one way or another (MLA 2008b) they have been criticised for being too broad (McManus 2009), for neglecting the specificity of museum or art gallery experiences (Luke & Knutson 2010), and for being incomplete/ineffective when applied to the contemporary gallery environment (Taylor 2006).

However, that is not to say that there is no research which centres on the non-formal learning experiences that take place within museums and galleries. Lachapelle et al. addressed the role of knowledge in individual art viewing experiences in their 2003 paper. In relation to a model of 'aesthetic understanding' they noted that:

The Model of Aesthetic Understanding as Informed Experience provides an explanation of the process of understanding and appreciating a work of art from an educational perspective: it identifies the types of knowledge involved and it also pinpoints the kinds of learning at each stage in the process leading to an understanding of the aesthetic object (Lachapelle et al. 2013: 79).

Much of the research that does exist which specifically explores nonformal learning experiences within the museum/gallery is intended for a practitioner audience, such as Adams et al.'s work which explored how "visitors make their own meaning in museums" (2003: 15) or Stylianides exploration of personal moments/personal experiences with artworks (2003). The latter, although still retaining an outcome of influencing more formal forms of art education, investigated the author's interactions with art on a personal level, in order that she could "appreciate more fully the relationship between my prior experiences [and] ... the new experiences in the gallery" (ibid.: 155).

There is a broad range of literature which explores workplace learning and focuses on non-formal and informal learning in the context of 'on-the-job' learning (Bjørnåvold 1997). Such research is often motivated by a range of economic, technological and social factors, amongst others (CEDEFOP 2008: 7-8). As Swanwick noted, "the workplace is responsible for shaping both unintentional and intentional learning activities" (2005: 863), however there is often a predominance amongst this literature to attempt to quantify the learning in order to improve those economic/social/technological factors listed above (CEDEFOP 2008: 7-8). Quantifying non-formal learning, or rather attempting to do so, with the aim, essentially, of qualifying it – adopting quantitative measures rather than qualitative ones and drawing conclusions purely from these – is a problematic approach given the superficiality of quantitative research when dealing with something (i.e. one's learning and experience) that cannot easily be expressed in such terms (see Coffield et al. 2004: 127).

Another of the problems when it comes to quantifying non-formal learning, or rather, specifically, implicit learning, is that it is inherently unintentional and non-institutional. Attempts to incorporate it into training

programmes or devise a system of qualifications pertaining to it (Bjørnåvold 1997, European Commission 2001) will lead to its formalisation (Conlon 2003). As such, white papers produced by governments, such as *The Learning Revolution*, written by the now defunct Department for Innovation, Universities and Skills (DIUS) for the UK Government, which sought to "foster and encourage" informal adult learning (DIUS 2009: 4), are always in danger of missing the point entirely; opportunities for non-formal learning can be created, but the qualities which make the learning non-formal must always remain constant in order to prevent its formalisation.

Meanwhile, although there can be a tendency for museums (and museum learning departments) to be over-reliant on formal education in order to exploit learning opportunities (Bradburne 2004), or on 'informal' learning of group visits/workshops (Faria et al. 2010), which can even be encouraged by external groups and funding bodies (Culture and Learning Consortium 2009), there is a growing acknowledgement that non-formal learning should not be ignored. As Bellamy et al. point out, non-formal and formal learning should be valued equally, with a "more holistic approach" embraced in order to take full advantage of opportunities (2009: 9).

2.6 Implicit Learning & Tacit Knowledge

Eraut (2000) identified implicit learning as one of the three key types of non-formal learning in his seminal paper on the topic (see Figure 4), also highlighting the linked concept of tacit knowledge. As Evans stated, there is a "growing recognition that the tacit dimensions of knowledge and skill are very important in the performance of individuals, organizations, networks and possibly whole communities," emphasising the importance of studying this aspect of non-formal learning (2002: 80-2). Evans and Rainbird stated that:

> The part played by tacit skills and knowledge in work performance is well recognized but not well understood. These implicit or hidden dimensions of knowledge and skill are key elements of 'mastery', which experienced workers draw upon in everyday activities and continuously expand in tackling new or unexpected situations (Evans & Rainbird 2002: 21).

As one of the leading proponents of implicit learning, and one of the first authors to really investigate the phenomenon, Arthur Reber defines it as "the acquisition of knowledge that takes place independently of conscious attempts to learn and largely in the absence of explicit knowledge about what was acquired" (1993: 5). Reber argues that implicit learning is a fundamental process that "lies at the very heart of the adaptive behaviour repertoire of every complex organism" (ibid.), emphasising the importance he placed upon the concept. Interestingly, he also argued that explicit and implicit learning should not be treated as separate processes (what he described as the "polarity fallacy"), but instead should be viewed as interactive and connected (ibid.: 23). Whilst concepts such as implicit learning should certainly be viewed in context and with awareness that other learning may also be going on at the same time, other psychological research (e.g. Underwood & Bright 1996, Perruchet & Vinter 2002) would suggest that implicit learning is intrinsically different and involves different memory processes to those used explicitly, in direct contrast to Reber's proposals.

The importance of implicit learning, and its relevance to this study, should not be underestimated. Not only does it form a key plank of Eraut's 2000 typology of non-formal learning, but it also stands out as an area of learning that has been significantly under-researched in the field of museums and galleries. Moreover, Weinert suggests that much of the learning "in an everyday context happens without conscious awareness" and that "the mechanisms of implicit learning and their developmental changes have only rarely been explored" (2009: 244).

Reber's definition of implicit learning places emphasis on a lack of conscious awareness regarding both the learning and the resultant knowledge (1993). Berry, however, uses a slightly different criterion, describing it as "learning to respond in some rule-like way without being able to state the rules or regularities that govern our behaviour" (1996: 203). In this instance the defining characteristic centres on the output – the resulting behaviour (which is, according to Berry, governed by rules that cannot be vocalised). A similar view is taken by Dianne and Dienes, who point to the ability of people to learn about

the structure of everyday environments, which can be quite complex, "without necessarily intending to do so, and in such a way that the resulting knowledge is difficult to express" (1993: 2); they describe implicit learning as the links between stimuli and actions which one is not aware of (ibid.: 13). Dienes and Perner state that implicit learning is the producer of "knowledge we do not know about" (2002: 82).

The difference between these two viewpoints is one of process versus product. Reber's definition is concerned with the act of learning itself and which aspects relate to the definition 'implicit', whilst Dianne and Dienes are focused on the outcome: the response or behaviour of an individual. Pozzali points out that tacit knowledge research "has always been more focused on the product (tacit knowledge) than on the process (tacit knowing)" (2008: 230) (tacit (or 'silent') knowledge being the product of implicit learning (Eraut 2000)).

A study of implicit learning literature reveals further differences: whilst Hayes and Broadbent refer to it as "unselective and passive aggregation of information about the co-occurrence of environmental events and features" (1988: 251), Underwood and Bright argue that there is a distinction between the processing of information where an individual is unaware that there is a stimulus and what they describe as implicit learning, "where the materials from which learning proceeds ... are (generally) presented explicitly" (1996: 7). Clearly the two arguments oppose each other, the former paying no heed to an individual's awareness of stimulus or not, whilst the latter directly singles this out as a defining characteristic.

To return to the issue of Reber's theory of a polarity fallacy in terms of explicit/implicit learning, Cleeremans and Jiménez note that the idea that "conscious and unconscious learning have different functions" is prevalent, whereas, in fact, they are "actually two different expressions of a single set of constantly operating graded, dynamic processes of adaptation"; the conscious and the unconscious differ "only in degree rather than in kind" (2002: 2). However, in direct opposition, Seger's experiments into explicit/implicit learning produced several results that she posited did not support an implicit-

explicit continuum (1997: 126). She argued that if such a continuum exists then participants should not be able to show learning on a middle measure without also demonstrating learning on one of the end measures, and similarly, participants should not be able to show learning on both end measures without some learning on a middle measure (ibid.). That is to say, Seger proposed a hypothetical continuum with explicit knowledge at one end, the results of reaction tests (see Figure 10) at the other, and what she called "pattern judgement" in between (ibid.). Her experiments showed that participants were able to demonstrate explicit knowledge and implicit knowledge (through performance on the reaction tests), but were not able to show any pattern judgement. She argued that her results, instead, were indicative of two entirely different learning systems – one dealing with explicit, and the other implicit – which are independent of each other (ibid.).

In psychological research there are three key tests which have been variously carried out by a number of researchers in order to investigate implicit learning. Due to their widespread use it is of worth describing them here in order to consider their usefulness and validity. In all three tests "subjects deal with a situation governed by complex, arbitrary rules, without being prompted for an explicit analysis of the task" (Perruchet & Vinter 2002: 42). Brief explanations of these tests can be seen below in Figure 10.

Name of	Explanation	Expected Outcomes
Test		
Artificial	Subjects are exposed to strings of	Subjects can usually perform at
grammar	letters governed by hidden rules	above-chance level in terms of
learning	and other strings which are totally	deciding which strings are
(see	random (and told that the first set	grammatical – without being able
Pozzali	are 'grammatical' and the second	to describe which rules the strings
2008).	set are not). They are then shown	adhere to, or why one string is
	further, new, sets of letters and	grammatical and another is not.
	asked to indicate which are	
	grammatical and which are not.	
Dynamic	Subjects are given control of a	Subjects usually improve
system	simulated dynamic system (for	performance over time without
control	instance, a factory) and allowed to	being able to explicitly say how
tasks (see	control various input variables,	they are improving the outputs.
Funke	with the aim being to create the	
2001).	greatest outputs (without being	
	told the best way to proceed).	
Sequential	Marks briefly appear on a	Subjects, without being told about
reaction	computer screen and participants	the repeated sequences, are
time tasks	are asked to click where they	generally able to click faster and
(see	were. These marks are variously	with a higher degree of accuracy
Perruchet	presented as a repeated sequence	when a sequence is following a
& Vinter	and in a random order.	repeated pattern than when the
2002).		order is random, without being
		able to explicitly show knowledge
		of these sequences.

Figure 10: Three tests for implicit learning.

In most cases, across all tests, "subjects are shown to perform to above chance levels ... most aspects of this ... are not due to the intentional exploitation of subjects' explicit knowledge about these features" (Perruchet & Vinter 2002: 42).

These tests are all normally carried out in laboratory conditions and as such somewhat neglect the context-relevant aspects of implicit learning (a key feature of this project), however, they still provide an interesting insight into the role implicit learning can play and the ways it can manifest itself.

The tests all pre-suppose that a subject has learnt implicitly if they cannot explicitly express the methods they are using in order to perform at above-chance level. However, this assumption does not take into account that a subject may know the rules but be unsure as to whether they are correct and subsequently withhold that information out of choice. Furthermore, it is a dangerous assumption in the first place, essentially defining implicit learning as learning of which one has no conscious knowledge – certainly not a universally accepted definition of the concept (which will be covered further in the section on 'automaticity' in Chapter 3).

Despite some reservations concerning these tests, and in particular their lack of context specificity, they have nonetheless been widely used and as such provide much of the evidence for implicit learning that currently exists. The benefits of laboratory experiments include their ability to create constants and to control variables, allowing them to justifiably claim to be investigating specific phenomena. Furthermore, these tests still investigate implicit learning and, although the situation in which learning takes place may play a significant role in the learning undertaken, that is not to say that it does not also take place in these experimental situations. As long as this fact is borne in mind when considering the implications for the findings of the implicit learning tests, they can still be useful and valid indicators of how individuals learn implicitly. In addition, the sequential reaction time (SRT) tests are particularly useful given that sequence learning "is at the heart of many fundamental cognitive activities, such as writing, typing, language production, and complex motor skills (riding a bicycle or driving)" (Perlman et al. 2010: 649).

Stadler and Roediger break the learning process down into 'encoding' and 'retrieval', and look at both implicit and explicit cases of each (see the matrix in Figure 11) (1998). They emphasise that implicit learning can involve either explicit encoding or retrieval, but not both (one of the elements of the process must be implicit for it to count as implicit learning). This is an approach that I believe may be extremely useful in this project, since it allows for the multiplicity of definitions that compete to define implicit learning in contrast to each other: not forcing a choice between a lack of consciousness at encoding and a lack of consciousness at retrieval.

	Implicit Retrieval	Explicit Retrieval
Implicit	Typical sequential reaction time	Typical artificial-grammar
Encoding	(SRT) experiment (sequence	learning experiment; subjects
	learning tasks); participants do	are not aware that they are
	not know that they are learning	learning rules, but in the
	sequences and are not aware	performance stage use
	they are using any learnt	knowledge (even if they believe
	knowledge in their	it to only be 'intuition') in order
	performance.	to identify 'grammatical' strings
		of letters.
Explicit	Stadler and Roediger cite the	[Not a case of implicit learning]
Encoding	definition of implicit learning	
	given by Shanks and St John	
	(1994) which, they say,	
	"focused on the conditions at	
	test" allowing for the encoding	
	stage to be explicit (Stadler &	
	Roediger 1998).	

Figure 11: Matrix of implicit learning (adapted from Stadler & Roediger 1998).

Eraut notes that in any given situation "multiple pathways are likely to be in use" in terms of explicit/implicit encoding and retrieval (2000). He uses the exemplar of an encounter with a new situation which is similar to one previously experienced: this may result in a rapid response seemingly automatically generated, whilst awareness that this rapid response action might not be the best reaction leads to explicit checking of the options for response based on generalised knowledge (ibid.). This means that investigating implicit learning can be complicated by the possible presence of explicit processes alongside it; making a stronger case for accepting the definition of implicit learning as advocated by Stadler and Roediger (1998).

The approach taken by Eraut strongly implies that explicit and implicit processes, although related and potentially occurring simultaneously, are not extensions of the same process. Whilst contradicting Reber's original hypothesis that implicit learning and explicit learning were both part of the same continuum, this is the approach adopted by much of the more recent research into implicit learning (e.g. Eraut 2000, Perruchet & Vinter 2002, Henke et al. 2003) and as such will be the approach taken here.

This chapter reviewed the literature surrounding the key focus of the project – non-formal learning – in particular conceiving of ways that one might approach non-formal learning in museums and galleries. The myriad of existing definitions relating to the terms 'non-formal' and 'informal' were outlined and compared, in order to draw out which approaches might be most useful and to explicate the approach that will be taken here. Of particular note was the typology of non-formal provided by Eraut (2000), whose definition will form a key element of the discussion in Chapter 8. As this project is primarily concerned with learning, existing theories and models of learning were reviewed, although it should be noted that many of these theories – whilst often widely used by practitioners, teachers and educators – are incongruous with much current research in the field of psychology. The psychological aspects of learning are dealt with in more depth in the following chapter, which focuses on the memory and its associated literature.

Chapter 3 – Literature Review: Memory and the Psychology of Learning

3.1 Introduction

Memory and learning are intrinsically linked processes: "memory is built on learning and the benefits of learning persist thanks to it ... [they share] such a profound relationship that memory is subject to the same factors influencing learning" (CERI 2007: 29)). As such, this chapter will focus on the role the memory plays in terms of learning, and in particular in terms of non-formal learning.

This chapter will look at memory largely from the perspectives of psychology and neuroscience, and try to apply the research that has been carried out in these fields to this museologically-located study. Although there are some instances of research which applies either psychological or neuroscientific approaches to the field of museum studies (e.g. Falk 2009, Kesner 2006, Moscardo et al. 2007), there is nonetheless some way to go before museology can claim to make full use of the cross-disciplinary research available.

The first section of this chapter, 3.2, will focus on the links between memory and learning, as well as a review of psychological literature which sets out the various processes of which memory is composed:

> Speaking of memory as if it were a single cohesive process is misleading. In fact, there are many different kinds of memory ... normally these different kinds of memory function together seamlessly, and we aren't aware of whether we've encoded information as a fact or a habit or a skill or an emotion (Gluck et al. 2007: 2).

Section 3.3, meanwhile, will then pay particular attention to the longterm memory and, subsequently, its composite parts. A key part of the chapter will form section 3.4: an overview of the physiological aspects of memory and learning; a brief review of literature relating to neuroscience and the role played by our brains when it comes to the ways in which we learn/use our memory. This section is supplemented by 3.5, which is concerned with mirror

neurons and their links to 'modelling' behaviour. The final five sections are all broadly related to the concept of automaticity and the nature of unconscious behaviour (particular relevant given the role implicit learning plays when considering non-formal learning broadly). These sections deal, in turn, with definitions of the term automaticity (3.6); the concept of 'chunking' (3.7); the automatic nature of skill acquisition (3.8); innate and pre-attentive processing (3.9); and the phenomenon of 'priming' (3.10).

3.2 Memory & Learning

The learning process is often characterised, on an individual level, as consisting of three stages:

Before material can be remembered (and forgotten), it must first be learned. Learning involves three basic processes: the acquisition of material, its consolidation and its retrieval (Martin et al. 2007: 339).

This can otherwise be described as encoding ("getting information into the system"), storage ("retaining information over time") and retrieval ("processes that access stored information") (Passer & Smith 2011: 254).

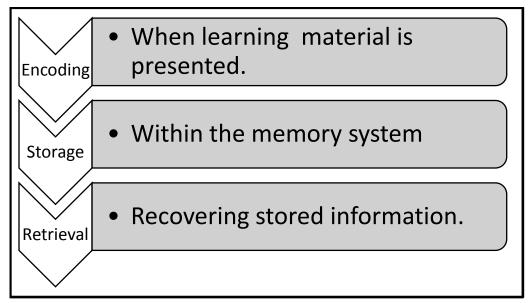


Figure 12: The process of learning (Eysenck & Keane 2005).

This section will explore some of the key accepted typologies of memory that exist in recent psychological literature. Whilst there is a general consensus amongst many of the key proponents in the field, breaking down memory into short- and long-term modalities, "each of these memory classifications is associated with a specific experimental procedure chosen from among many possible kinds ... it thus becomes problematic whether these constructs are distinct psychobiological entities or just manifestations of the measurement method used" (Uttal 2011: 188).

The conceptual change undertaken in the learning process, as described by Martin et al., involves a staged process similar to that proposed by Eysenck and Keane in 2005 (see Figure 12). These stages – the acquisition, consolidation/storage and subsequently retrieval – all take place within the memory system, which itself is then broken down into constituent parts; each dealing with a different aspect of this learning process. Schacter et al., in a classic example of modelling how the memory works, hypothesised that it was composed of short-term and long-term memory, and that the long-term memory consisted of episodic, semantic and procedural memory, and a perceptual representation system (2000) (see Figure 13 for a brief definition of each these terms). A more recent approach, by Baddeley et al., proposes that the memory is composed of short-term memory, working memory (distinguished from STM as a "mental workspace" combining storage and processing), episodic memory and semantic memory (2009), of which the latter two are characterised as long-term.

A key dichotomy, in terms of current psychological literature on the memory, is the opposition between the short- and long-term memory systems. These two systems are invariably separated at some point by the vast majority of commentators, but the exact placing of this division is strongly contested. One such example is presented by Martin et al., who argue the presence of a 'sensory memory' ("representations of the physical features of a stimulus" stored very briefly), a short-term memory (STM), a 'working memory' which is similar to the STM but actually allows for the manipulation of material in short-term memory and then, finally, the long-term memory (LTM) (2007).

Episodic Memory – "our capacity to recollect specific experiences" (Baddeley et al. 2009) / "the recollection of singular events in the life of a person" (Anderson & Gosselin 2008).

Long-Term Memory – "information that is represented on a permanent or a near-permanent basis" (Martin et al. 2007).

Semantic Memory – generalisable knowledge about the world (Eraut 2000).

Short-Term Memory – "immediate memory for stimuli that have just been perceived" (Martin et al. 2007) / "the storage of small amounts of information over brief periods of time" (Baddeley et al. 2009).

Procedural Memory – "used in skill learning" (Eysenck & Keane 2005), i.e. used to learn *how* to do something.

Perceptual Representation System – similar to procedural memory in that it is related to learning directly connected with action or skill, but more specifically associated with 'priming' – "learning dependent on the specific stimuli used in training" (Eysenck & Keane 2005).

Figure 13: Glossary of key terms.

As the argument starts to disassociate itself from the view of the memory as an almost physical part of the brain, it is important to consider the many ways of thinking about memory and the various forms it can take:

The mental process of memory takes on a corporeal form in the brain, but the physical form is invisible to the naked eye: memory becomes sensible and visible through imaginative recollection and representation, as we seek to hold onto our fleeting sense of its meaning (Crane 2000: 1).

Crane begins to conjure the idea of memory as an abstract concept with only a "fleeting" sense of meaning, an idea taken further by Brockmeier amongst others (e.g. Halbwachs 1980, Welzer 2010), who emphasised the part played by social memory as opposed to personal memory (2002). Whilst not disputing the 'cerebral processes' that contribute to individual memory, these authors argue for the presence of social memory which exists between members of a community.

In this project, whilst remaining aware of the notion of social memory, I believe will be more constructive to consider the issue from the perspective of the personal, especially since non-formal learning can be potentially undertaken by individuals in relative isolation from their communities, for instance if visiting alone.

In terms of the context of a museum/gallery, and the presence of objects in such contexts, it is valuable to note van Dijck's theory of mediated memories (2007): she suggests that memories are stored both internally, in the mind, and in objects, which are "triggers of personal memories" (ibid.: 28). Van Dijck's work complements that of Rasmussen (2002) and Anderson (e.g. Anderson & Gosselin 2008), offering, as she does, the idea that memories are rewritten each time they are 'activated' – evoking a sense that the process is not one of recall per se, but instead is one of re-creation (van Dijck 2007: 32). Van Dijck's approach suggests a potentially radically different memory system, which does not (at the point of retrieval) simply 'access' a pre-existing memory, or even construct new memories based upon a combination of existing ones, but instead actively re-writes the entire memory through the process itself of recall.

Whether to focus on the effect of memory at the 'recall' or the 'encoding' stage is clearly a crucial point of debate, although Benton and Cecil present a more holistic picture, which does not demand a radically different approach to the way the memory works at different stages of the process, noting that memory and experience cannot be easily separated: it is "practically impossible to experience something without being influenced by memories of previous experience" (2010: 12). They expound a cyclical theory combining experience and memory and their joint influence on each other.

There are a number of divides in the literature within the field of memory, concerning contrasts between short- and long-term memory systems; social and personal memory; and a chronological view of the process (of encoding, storage and retrieval) and a more 'joined-up' view where memory and experience influence each other cyclically.

One approach that stands out as being particularly useful is that taken by Eraut: which characterises the episodic and semantic memory as storage systems with inputs and outputs (2000). Whilst this model boxes off the two

memory systems as independent, although interrelated, it nonetheless provides a valuable way of representing the mental processes of the memory and leaves room for a fluid approach to the way processing takes place within and among the inputs of experience of knowledge; episodic and semantic memory; and the outputs of behaviour and performance. The Eraut model is placed entirely within the long-term memory structure, avoiding the need to engage in a debate surrounding the relationship between short- and long-term memory systems. Furthermore, this model addresses the issue of implicit learning and is designed to show how implicit learning differs from other forms of learning, providing an insightful and clear representation. Whilst not ignored by other commentators, Eraut is one of the few to tackle head-on the way implicit learning interconnects with the memory and as such is a central marker for this study (see section 3.3).

A key issue for this project concerns the relationship between memory and non-formal learning, and which of the various models and approaches it is useful to adopt in order to make sense of the complex chemical/physiological process taking place in our brains. In terms of museums and galleries, one of the aspects which it is important to consider is that of 'meaning-making' on the part of visitors during their non-formal visit.

Silverman argues that visitors make meaning through a "constant process of remembering and connecting," going on to state that learning hinges upon the "accommodation of new information into existing mental structures and frameworks" (1995: 162). Regarding the context-specific nature of the learning being studied here, she emphasises that people place the things they encounter in museums within the context of their own experience; "thus memory may be viewed as the core mechanism of meaning-making" (ibid.). This use of past memory to mould current meaning is an important argument to bear in mind when considering the role of memory in non-formal learning, given that meaning-making is one of the key facets of learning. But, although Silverman emphasises the important role played by memory, her article focuses on the 'what' and fails to genuinely interpret how the memory might be working in this case.

By combining some of the leading research in non-formal learning from museology with psychological research that focuses on memory it will be possible to reach a more coherent conclusion with regards to how memory works in context. David Anderson has carried out a number of studies into memory within the broader field of cultural studies, investigating how people remember momentous events such as World Fairs and Expositions a number of years after visiting them. In particular he focuses on the issue of rehearsal:

> Visitors do rehearse memories of their museum experiences as they discuss and relive the details of their visit with others, and this may have a beneficial effect on the detail of their recall of the experience (Anderson & Shimizu 2007: 180).

Interestingly here Anderson is not concerned with the role memory plays at the initial 'encoding' phase of a museum visit, but instead pays attention to the way memory and experience are shaped over time. This approach emphasises the fact that a non-formal learning experience is not necessarily bound by the walls of a gallery or the start and end times of a visit, but instead can be a much longer-lasting process, affected by its 'rehearsal'. Anderson & Shimizu cited the 1968 Atkinson & Shiffrin 'multi-store model' of memory which argued that rehearsal encouraged the transfer of information from a short-term to long-term store in the brain; this view is echoed by Rasmussen who proposes that remembering is not just repeating but, in fact, reconstructing and creating (2002: 125). She highlights the point of recall as the crucial moment when the memory adapts and even alters the original experience.

3.3 Long-term Memory

The short-term and long-term memory systems are polarised by a number of commentators and the majority of research into implicit learning, and its associated concepts with regards the memory, centres on the long-term aspects of it. In particular there has been research into the semantic and

episodic components: Eraut (2000) and Hovarth et al. (1996) discuss a model of implicit learning based upon memory structures (see Figure 14).

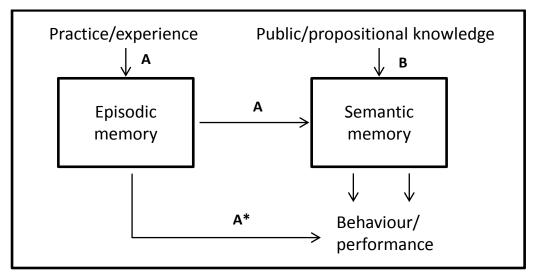


Figure 14: Memory structures and knowledge-acquisition pathways (Eraut 2000, modified from Hovarth et al. 1996).

As can be seen, semantic and episodic memory are taken as the two central systems in this model. The top of the diagram represents the inputs to the memory system, and the bottom the outputs (the resulting behaviour). The three pathways they present, A, B and A*, are explained in Figure 15 below.

Path A – Personal experiences and events are stored in the episodic memory and then, over time, 'transferred' to the semantic memory as they are used to build knowledge which is generalisable to other situations (Eraut 2000) (e.g. having individual memories of visiting specific museums, which then translate to knowledge about museums generally ('they normally have cafés', 'they are often free to enter in the UK' etc.).

Path B – The acquisition of generalisable knowledge directly (ibid.) (e.g. learning that you have to pay to enter theme parks as a result of someone telling you).

Path A* – Implicit learning, "the direct influence of event knowledge in episodic memory on behaviour – influence that is not mediated by the generalized knowledge representations in semantic memory" (Hovarth et al. 1996: 8) (e.g. previous visits to museums enabling you to navigate your way around on a later visit without need for additional help and without, necessarily, conscious (explicit) awareness of what you are doing).

Figure 15: Memory pathways.

By positioning non-formal learning entirely within the long-term memory systems, Eraut and Hovarth et al. could be accused of neglecting the impact upon and/or of the short-term memory (and its associated concepts: sensory memory and working memory). However, although the role of shortterm memory should not be completely discounted (the short-term memory may influence what attention is directed to etc.), when dealing with non-formal learning we are primarily interested in the changes undergone by visitors (conceptually, behaviourally) which are widely accepted to be primarily concerns of the long-term memory system.

A number of studies carried out by Falk showed that over time visitors' "specific memories tended to disappear and be replaced by more conceptual and 'big picture' memories of the experience" (2009: 135), which seems to give credence to the Eraut model (specifically 'Path A' in Figure 14).

In contrast Conway suggests a different approach to the role of episodic memory, encapsulated in what he describes as the Self-Memory System (SMS) (2005). Conway's system arranges knowledge in the long-term memory hierarchically: at the top there is abstract/conceptual knowledge, which gradually becomes more event-specific the lower down one gets, and at the bottom are specific episodes and experiences. This is a different way of modelling the semantic/episodic memory systems and the transactions between the two. In Conway's system the episodic memories are either more or less accessible depending on how much they conform to the goals and selfimages of their owner - the closer their relationship, the more accessible the episodic memories are. Furthermore "the SMS framework proposes that all recent memories are ultimately on a forgetting trajectory and will in fact be forgotten unless they become integrated with other long-term memory representations" (ibid.: 596). Whilst not dealing with implicit learning directly, Conway's model goes against the theories of Eraut (2000, see Figure 14) in terms of the way the episodic memory links in with the semantic memory. Conway's focus, however, is very much on the self and on the autobiographical memory; his model has been designed with this in mind and as such ignores other possible relationships between one's episodic memories and eventual outputs.

It is worth, here, referring briefly to the work of Henke et al. who compared declarative and nondeclarative memories (that is memories that are

experienced consciously, in the case of the former, and non-consciously, in the case of the latter). They synthesised wide-ranging experimental psychological and neuroimaging evidence, as well as conducting their own experiments, to show that "declarative and nondeclarative memory dissociate in their functional characteristics and in their underlying neural substrates" (Henke et al. 2003: 32). The neuroimaging results from their own experiment showed different parts of the brain were active when undertaking conscious or nonconscious recollection activities (ibid.: 46). Essentially their work showed that when accessing conscious/nonconscious information the brain undertakes entirely different functions; in other words, the explicit and implicit processes utilised different brain functions – evidence that implicit learning both exists and is physiologically distinct from explicit learning.

This type of approach dovetails with the following section, which is centred on physiological approaches and introduces a way of understanding the memory and learning from the point of view of neuroscience.

3.4 Physiological Approaches

It is perhaps useful at this point to recognise that all the theories and models relating to memory, within the field of psychology and beyond, are just that – models – designed to represent rather than directly show what is going on (given the virtual impossibility of currently doing the latter successfully). As Sternberg notes "metaphors often serve an important function in organising ideas, thereby aiding researchers to conceptualise a phenomenon well enough

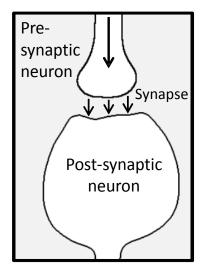


Figure 16: Neurons and synapse (adapted from Goldstein 2005).

to investigate it" (1999: 157). However, it is nonetheless a useful undertaking to explore the physiological process taking place in order to better understand both memory and learning on an individual level.

Our brains are made up of millions of nerves, themselves composed of presynaptic and postsynaptic neurons (see Figure 16). Inbetween these two components is a small space known as the synapse. The process of learning, or of remembering, can be seen at these synapses; upon presentation of a stimulus, electrical signals are fired from the presynaptic neuron to the postsynaptic neuron, if the stimulus is repeated often, structural changes in the neurons occur at the synapse which allows for an increased firing rate of the signals (Goldstein 2005); in other words "learning requires physical changes in neural circuits" (Gluck et al. 2007: 80).

Memory consolidation is the "strengthening of this neural information" (Goldstein 2005: 206) at the synapse (see Figure 17) resulting in the increased firing rate of electrical signals. All the models designed to show how learning or memory work, are essentially ways of depicting what exactly this strengthening of neural information (these structural synaptic changes) are in terms of demonstrable outputs.

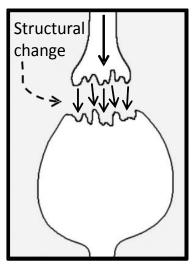


Figure 17: Neurons and synapse after repeated stimulus (adapted from Goldstein 2005).

As well as this transformation of neurons, *non-boldstein 2005*, new neurons are also generated throughout one's life (CERI 2007: 41). This process helps replace cells that have died, often as a result of a weakening of inactive connections, all of which helps contribute to modification of the brain structure over an entire lifespan (ibid.: 42).

It is important to note that this is a vastly simplified version of the processes taking place, which involve a mixture of chemical and electrical signals and which involve a far more complex system (similarly, Figure 16 and Figure 17 above, are both highly stylised depictions of neurons, which in reality, are primarily composed of dendrites, a cell body and an axon (CERI 2007: 37)).

The brain itself has been divided into numerous composite elements/areas which have been linked to different aspects of our functioning, largely by observing which parts of our brain are active/most active when undertaking different activities (Gluck et al. 2007) and by studying people with damaged brains (e.g. Rudy 2008: 238). Given the broadness of the concept of learning – "a change in the state of a system produced by experience and reflected in behaviour" (Uttal 2011: 177) – it is difficult to restrict learning to one part/parts of the brain: which is not to say that has stopped people from trying (e.g. Thompson 2005).

The Thompson model of learning/memory types and brains areas is widely regarded as both "standard" and "influential," despite being a relatively simple version of what is in exceptionally complex system (Uttal 2011: 199). I will not go into the details of the model and the divisions of brain areas here, due to the constraints on space and the lack of applications such a discussion would have regarding this project, save to say that it is likely that different areas of the brain do specialise in different functions. An understanding of this facet of neuroscience can help cognitive psychologists pinpoint what processes people use (for instance, which aspects of their memory (e.g. long-/short-term)) by observing which areas of their brain are most active in different situations and has contributed to the compartmentalisation of memory and learning, as discussed in 3.2 and 3.3.

In addition to larger parts of the brain being associated with different roles, neural processing "results in individual neurons that respond to specific stimuli" such as faces, common objects etc. (Goldstein 2008: 52). In other words, different neurons, in different parts of our brains, are involved in different processes, e.g. motor neurons affect movement, sensory neurons respond to touch etc. With this in mind, the next section will look at a particular type of neuron and its implications for visitor behavioural studies (and subsequently, studies of non-formal learning).

Whilst it would be easy to assume that because the vast majority of us share the same basic brain structure, we are all pre-disposed to learn and use our memories in the same way. However in reality there are a number of studies which have shown that people's brains are vastly different (which makes sense when one considers the way neurons physically change) and, to

an extent, operate in different ways (e.g. use greater/lesser energy, activate different areas etc., see Neubauer & Fink 2010).

3.5 Mirror Neurons and Modelling

Visitor behaviour clearly represents a hugely important aspect of the study, and in particular, Chapter 4 will discuss visitor 'modelling': the phenomenon of visitors altering their behaviour based upon what others do – taking their cues in terms of how to behave by visually studying fellow visitors (Koran et al. 1988). Whilst the implications of this behaviour will be discussed in more depth in the following chapter, literature relating to 'mirror neurons' will be discussed here, given the relevance of the latter to the former and the connections that can be made with the fields of neuroscience and psychology.

Social psychology studies have demonstrated that imitation and mimicry are pervasive, automatic, and facilitate empathy. Neuroscience investigations have demonstrated physiological mechanisms of mirroring at single-cell and neural-system levels that support the cognitive and social psychology constructs (lacoboni 2009: 653).

Geake suggests mirror neurons are a "neural correlate of our capacity to envisage the mental states of others, in other words, our ability to put ourselves in other people's shoes" (2009: 108), which would seem to encapsulate the concept of modelling previously discussed.

It is important to state that the presence of mirror neurons has not been definitively proven. These neurons have been identified in macaque monkeys but, due to the invasive nature of single-cell research in the brain, they have not been categorically isolated in humans as of yet; however Rizzolatti and Craighero have stated that it is highly likely that "a mirror-neuron system ... exists in humans" (2004: 176).

The basic concept of these particular neurons rests upon trials in monkeys, in which "mirror neurons fired in the brain of a monkey who was not actually performing the motor action at the time [reaching for a banana], but [only] observing it" (Geake 2009: 109). In other words, parts of the brain involved in actually doing things (e.g. the motor cortex, involved in movement)

become active when observing others doing those very things (Rizzolatti & Craighero 2004: 174).

Mirror neurons ... provide a pre-reflective, automatic mechanism of mirroring what is going on in the brain of other people that seems more compatible with our ability to understand others effortlessly and with our tendency to imitate others automatically (lacoboni 2009: 666).

Essentially the presence of mirror neurons "helps us to see the world from the point of view of others ... social learning without having to go through trial and error" (Geake 2009: 112), perfectly capturing the concept of 'modelling' behaviour often undertaken unconsciously, automatically, by visitors to museums and galleries (as well as in a host of other social settings and environments).

3.6 Automaticity

Ivan Pavlov's seminal experiments with dogs investigated the phenomenon of dogs salivating at the sight of lab technicians, before seeing whether or not the technician actually had food; Pavlov deduced that the dogs had no conscious control over their behaviour but had been conditioned to respond in a certain way (Pavlov 1955); as Sternberg notes, Pavlov's research paved the way for psychological studies of behaviour (1999: 9).

The discussion of Eraut's typology of non-formal learning in Chapter 2 introduced the concept of implicit learning and the role played by the unconscious. As such, literature related to the concept of automaticity – questioning the differences between conscious and unconscious control and behaviour – will be discussed here in order to help define the term and its role in this study.

Andrade highlighted the link between automaticity and implicit learning, making the former an important topic to investigate when studying the latter.

> The concepts of automatic and controlled processing map closely onto the currently more fashionable concepts of unconscious or implicit processing and conscious or explicit processing (Andrade 2005: 562).

The two major spheres of dialogue relating to the concept of automaticity concern the attributes than can be ascribed to the term itself, and the processes which it is said to encompass. This section will consider literature relating to the former, whilst following sections focus on the latter. Rawson states that "automaticity has traditionally been defined in terms of properties of performance (e.g., speed, effort)" (2010: 185), but these 'property-lists' are less favourable and of greater relevance are the "underlying cognitive mechanisms that give rise to properties of interest, rather than ... the properties themselves" (ibid.: 188).

One of the prominent positions supposes that for something to be automatic it must involve neither awareness nor intention; Sherman et al. note that automatic processes are "those that occur without intention or awareness, that require few cognitive resources to enact" which can be directly contrasted with controlled processes ("those that typically require intention and cognitive resources") (2008: 315).

Hasher and Zacks contrast automatic with effortful (using effortful as a synonym for processes which are conscious and/or controlled), but they extend this to suggest that "encoding processes may lie along a continuum from automatic to effortful in terms of the capacity they require" (1979: 382). Although they still polarise automatic processes with effortful ones, the concept of a continuum, and the potential for varying degrees of automaticity along it, is a distinction further pursued by Norman and Shallice who differentiate between fully automatic and partially automatic processes (1986). The question of levels of automaticity raises an important point: can a process be considered as anything but fully automatic, and if it can, what features define its partiality? It could be argued that once certain levels of consciousness or control infiltrate the process then it ceases to be describable as automatic (in the sense of the word's very definition, which emphasises the complete independence of action (OED 1989)).

Meier et al. replicate Reber's (1993) argument concerning implicit learning, stating that "our findings do not rule out that both automatic and

controlled processes are initiated similarly," only chiefly differing in the time it takes to complete (Meier et al. 2003: 319).

In contrast, there is a further body of work which does not view automaticity as one end of a spectrum polarised against conscious processes, but rather defines it as being a process over which we simply have no control; Frensch (1998) describes automatic processes as nonintentional but as not necessarily unconscious. A classic example of support for this stance can be found in the form of the (in)famous Stroop tests, which have been widely used and tested since their inception in 1935. Stroop showed that when asked to identify the ink-colour of a written word subjects were significantly impaired if the written word spelt out a different colour (such as the word 'r-e-d' written in blue ink) (Stroop 1935). "The subject automatically perceives the meaning of the word (even if he does not want to) and is conscious of the word" (Dienes and Perner 2002: 77) but has no control over this perception, leading to detrimental performance on the test. This was said to demonstrate the automatic act of reading, which we can be aware of, but cannot control.

Although Valdés et al.'s research encouraged them to summarise that word processing was fully automatic, they warned against the potential implication that automatism operated without a control mechanism (2005). They remained unclear on the subject of whether there was conscious control over this mechanism on the part of an individual, but they did believe in some form of control over word processing, even when there is no level of attention or consciousness directed toward it (ibid.). Suhler and Churchland broached this subject in their 2009 article on control, claiming that "although consciousness does sometimes have an important role in control, it is not required"; pointing to the existence of 'non-conscious control' which is frequently utilised and can be "every bit as genuine as the conscious variety" (2009: 346).

Hélie et al. address the issue of categorisation judgements, which they describe as "when we sit in a chair, pick up a book, or swerve to avoid a pothole" (2010: 1013); describing these examples as "automatic"

categorisation judgements. Clearly an individual exerts control over his actions when undertaking tasks such as picking up a book, which suggests that, in this instance, automaticity is demonstrated by a lack of consciousness of the actual process taking place (e.g., we choose to pick up a book but do not necessarily consciously think about the action of moving our arm, grasping the book with our hand, etc.).

Moors and De Houwer undertook a review of a number of authors on the subject of automaticity in their paper of 2006. They highlighted many key arguments in the literature and noted the presence of multiple competing definitions, subsequently advocating a decompositional approach to the features of automaticity; breaking it down and moving away from the 'catch-all' terminology currently used. They believed that each individual (potential) feature of automaticity (awareness, intention, speed, efficiency) is inherently gradual and can be present to lesser or greater degree. As such they argued that no one term can truly encompass automatic processing and instead each feature should be considered individually (ibid.).

The approach of Moors and De Houwer is certainly appealing in some respects, however, although there is debate over the attributes of automaticity, the more relevant dialogue relates to the processes captured by the terminology itself. Indeed the possibility that there "are two types of nonintentional/automatic processes that are not necessarily indicated by the same set of criteria" (Frensch 1998: 73), or, in fact, more than two types, "multiple automaticities" (Saling & Phillips 2007: 9), is the real crux of recent discussion. Furthermore, Rawson's work showed no correlation between 'property-lists' of automaticity (describing it through its properties) amongst numerous different authors, advocating instead the more 'dynamic' process-based theories (2004).

The next sections relate to other aspects of automaticity, each of which has relevance to a study of learning in the museum environment.

3.7 Chunking

The combined issue of control and automaticity has relevance to, and is encompassed by, the theory of 'chunking' (Miller 1956): the "ability to perceive more information per unit of time" by 'chunking' information together into "higher-order categories" (Falk & Dierking 2000: 119-20). Chunking or unitization:

Is one of the most important psychological processes, as it provides a means of organising the information we encode from our environment (Perlman et al. 2010: 658).

In this instance, although it is possible to be aware that the chunking process is taking place, there is no way to exert control over it – it happens seemingly automatically. Chunking is often exemplified by the experienced chess player, who will not see individual pieces on a board but instead sees groups of pieces arranged in patterns (Eysenck & Keane 2005, i.a.). Although the chess player will be aware of this process and may utilise it in order to make their next move(s), there is research which suggests that they are not able to control it; Saarliouma demonstrated that expert chess players performed much worse on recall tests of chess boards when the layout of pieces was random as opposed to in-game layouts (1995), suggesting that they cannot 'chunk' randomly or at will.

Perlman et al. highlight two predominant theories of chunking in their work: co-occurrence and task demands (2010). The former, co-occurrence, suggests that the more often something is experienced, the more likely it will be unitised by the brain; meanwhile the latter theory, of task demands, holds that units or chunks will be formed based upon what is most useful/relevant to the completion of a given task. They conducted a range of experiments in order to test these competing theories, including one based upon sequence reaction times: they utilised two sequences, ACBD and ACDB (the letters each representing mark locations on a computer screen) which were presented to participants. The sequence ACBD was presented in 80% of instances, whilst ACDB was presented 20% of the time. Co-occurrence theory would suggest that since the combination AC occurred 100% of the time this should become a

'chunk' as opposed to the whole units of ACBD/ACDB; as a result, once A was presented in either case, in theory, participants would show lower reaction times in recognising C. However, their results, whilst showing decreasing reaction times across all tests, actually showed that when ACDB was used (the less frequent sequence) reaction times were higher when locating C than when ACBD was used; suggesting the 'chunks' being created by participants were not of the unit 'AC' but were of the larger, more task-relevant, units of 'ACBD' and 'ACDB' (ibid.). This confirmed the work of Perruchet et al. (2002) who found no obvious boundaries between units (or chunks) which were instead created in order to be most structurally relevant (i.e., in the above example, unit AC may have originally been created but was then abandoned in favour of ACBD when this became more obviously relevant).

In the context of museums and galleries understanding 'chunking' behaviour can help understand how people learn/process information. Curatorship literature often makes reference to people's ability to digest chunks of data, without necessarily going into the psychological theory behind this presumption (e.g. Serrell 1996).

3.8 The Automatic Nature of Skill Acquisition

Skill acquisition represents a way of conceiving of the process of learning which has not yet been covered in great depth. The next chapter will address this issue, examining the acquisition of skills in a museum environment and the connections that can be drawn between this and non-formal learning. This section, however, will turn its attention towards the automatic nature of skill acquisition and its relationship to automaticity.

The process of skill acquisition is potentially, it could be argued, practicing a task in order to develop your ability to complete that task, e.g. the creation of automatic processing: "when components of a skill become automatic with practice, attention is shifted from them to higher-level aspects of the skill that are concerned with integration" (Moors & De Houwer 2006: 300, see also Logan 1992). Activities such as driving a car or playing the piano normally utilise conscious, controlled and intentional processes in order for us

to learn the skill involved, but with practice become what some authors described as automatic. Bargh and Chartrand put this most succinctly when they describe "intentional, goal-directed processes that became more efficient over time and practice until they could operate without conscious guidance" (1999: 463). Saling and Phillips believe automaticity (as a result of skill acquisition) to be "algorithmically superior," i.e. the algorithm and mental computation are still present, but the algorithms used are of a higher level (for example, seeing the equation '2+2+2+2' and working it out using the more efficient algorithm of (2x5') (2007: 7). However, a differing view on the mental alteration that takes place is presented by Logan et al. who describe this transformation as the replacement of an algorithm (the mental 'working-out') with "single-step" memory retrieval (1999: 166) i.e. the first time you see the equation '2+2' you have to mentally add the numbers in order to work out that it equals 4. However, subsequent encounters with the equation allow you to directly access a portion of your memory which tells you that '2+2=4' and which does not require you to work anything out. Whilst this example has used very simple mental arithmetic, Orrantia et al. showed similar automatic factretrieval processes when they used more complex arithmetic word problems (2010).

Rawson and Middleton present evidence which concurs with this theory, noting that participants in their studies showed a "continued reliance on algorithmic processes for novel items versus primary reliance on retrieval of prior interpretations for repeated items" (2009: 365), i.e. the succession of memory (retrieval) over algorithms for non-novel items/encounters. This view is supported by the fMRI (functional Magnetic Resonance Imaging) research of Jansma et al., who found a decrease in brain activity in areas traditionally connected with the use of working memory when automatic processing was suspected to be in use (2001). And, following a similar vein, Schneider and Shiffrin argue that controlled processes require the use of short-term memory (of which working memory is widely considered to be a part (Eysenck & Keane 2005)) in order to activate the long-term memory and create connections, whilst automatic processes utilise connections in the long-term memory that

have already been established and made permanent (Schneider & Shiffrin 1977).

However, working memory is used by some authors to describe potentially 'automatic' activities such as language processing and decision making, and is explicated by Hassin et al. as a possible implicit operation, arguing that it can function outside of conscious awareness, not necessarily suggesting a range of levels of consciousness, but simply that the processes that constitute working memory "can be recruited without conscious intention, and that they can then go on to operate non-consciously" (2009: 667). And similarly, Fisk and Schneider hypothesised that automaticity can occur with ... no long-term memory record" being kept or created (1984: 195); they carried out a number of experiments to establish this, but also cite incidental/anecdotal evidence: "one subject reported, 'as I was leaving the bathroom this morning, it suddenly struck me that I couldn't remember whether or not I had shaved, I had to feel my chin to establish I had'," going on to suggest that these oft-practised everyday activities (another common example being driving), "performed while controlled processing resources are engaged in other tasks," can result in no long-term memory storage (ibid.: 195-6).

In a seminal paper of 1996, Toth and Reingold state that "after extensive learning, automatic processes are said to become as encapsulated and uncontrolled as reflexes" (1996: 74). They agree that the practice and development of a skill can lead to an automatic process, but liken this to a reflex rather than a form of either memory retrieval or the use of superior algorithms. This emphasises the independent aspects of automaticity, moving away from the positions which, whilst noting that it is faster/more efficient, still assume some level of control. The process of skill acquisition is covered in further depth in Chapter 4, in particular in relation to the non-formal learning process and in conjunction with theories of cultural capital.

3.9 Innate and Pre-attentive Processing

Often described as an automatic process, it is important to consider the nature of innate processes such as breathing, which are not learned as such, but instead are 'hard-wired' (Groome 1999). These processes or operations "function at a constant level under all circumstances," they occur "without intention and do not benefit from practice" (Hasher & Zacks 1979: 356). Whilst sharing the trait of draining "minimal amounts of energy from attentional capacity" these innate processes are ones for which we are "genetically 'prepared'" as opposed to those processes requiring practice in order to become automatic (ibid.: 359).

Pre-attentive processing describes the process of selecting which stimuli/information our brain (with its essentially limited capacity) directs its attention to, also described as a result of the 'bottle-necking' effect (the presence of a metaphorical 'bottleneck' in the processing system which prevents multiple decisions being made in response to multiple stimuli simultaneously (Pashler et al. 2001)). Bargh and Chartrand state that preattentive processing is one of the two "major strains" of automatic processing (with skill acquisition the other), noting that research into "initial perceptual analysis" showed that it takes place without effort, intention or awareness (1999: 463). This clearly raises an interesting point regards what can be defined as automatic; Bargh and Chartrand characterise automatic processes as those that are not effortful and do not involve either intention or awareness, and as such feel justified in their description of these two separate processes as 'automatic' ones.

Whilst some disregard the innate behaviours described by Hasher and Zacks (e.g. Fisk & Schneider 1984), Besner et al. instead argue that "low-level human behaviors are automatic, in that a stimulus serves to elicit the behavior in the absence of conscious awareness or intention," but that the process of skill acquisition is not (1997: 221). Their research into the Stroop effect (and their re-workings of this experiment) showed that the supposedly automatic process of reading in most adults could be interfered with in order to reduce or eliminate the effect (ibid.). By only utilising coloured ink for one letter of a

colour word (i.e. the letter 'r' written in blue ink and the letters 'e' and 'd' written in black ink) subjects were able to much more quickly identify the colour of the ink. As such, Besner et al. contended that the reading of the word was not an automatic, inevitable process, but was instead context-driven, and owing to the fact that external stimuli impacted upon the processing they believed this to not be an 'automatic' process (1997). This view is somewhat debateable as virtually every process discussed here and referred to as automatic still depends upon external stimuli in order to be initiated whether that process is as a result of skill acquisition, is pre-attentive or is innate (e.g. breathing can be moderated if necessary given the environment; the process could be considered to be 'interfered with' in instances such as a fire, when it may be required to actively control/regulate your breath).

3.10 Priming

Experiments conducted by Macrae et al. suggest that people's behaviour is influenced by stimuli and priming, and stereotypes are not inevitably automatically triggered, but are affected by the conditions and the context of a situation (2009). As such, it does not necessarily hold that for a process to be automatic it cannot be affected by context.

Wheatley and Wegner (2001) propose two forms of automaticity, a conscious form (which can be likened to the result of skill acquisition) and an unconscious form which describes the priming of actions through prior stimuli; "some automatic processes do not require any wilful initiation and operate quite independently of conscious control" (ibid.: 991); however rather than specifically referring to the innate automaticity of Hasher and Zacks, in this instance Wheatley and Wegner use the example of "buying 'Tide' laundry detergent after having recently seen a nature program about the ocean"; emphasising the fact behaviour can be triggered through priming. Although there may be no consciousness of it, as a result of automatic processes the behavioural output (buying 'Tide') can be directly linked to the prior stimuli (Wheatley & Wegner 2001: 991); this position is one which may have relevance for the study of automaticity in learning environments such as museums or galleries – providing potential explanations and links between the fabric,

objects and interpretations of institutions and visitors' behaviour and responses.

Whilst the last 5 sections have emphasised the range of definitions that are varyingly used to describe automaticity, Saling and Phillips make the point that "invoking multiple automaticities, while attractive, is not particularly parsimonious" (2007: 9). They argue that although there may be different mechanisms which can be associated with automaticity, all "automatic behaviour ... should meet the same criteria for automaticity" and the term should be used as a unified construct/phenomenon (ibid.). As such, it is a dangerous term to consider using when dealing with implicit learning as a whole, given the problems in interpretation that may follow. Furthermore, the links automaticity retains with innate processes, such as breathing, complicate usage of the term in a museum/gallery context, despite the closer links that can be drawn between the environment and the phenomenon of priming, as discussed above. Furthermore, Rawson argued that it was a misnomer to describe any particular component process "as automatic, except in relative terms" (2010: 226) and suggested, what she described as a radical approach, doing away "with the 'A' word altogether" (ibid.). However, the research of Thompson et al. into patients with Huntington's disease (HD) – a neurodegenerative disease - helped demonstrate the existence of some form of automaticity in terms of conscious brain functioning: their experiments involved participants both with and without HD completing two simultaneous tasks (one of which required minimal attention); subjects with HD performed significantly worse on the second task, suggesting that their cognitive decline debilitated them when it came to 'automatically' completing the first task (Thompson et al. 2010).

Whilst the definitions of automaticity are much debated, and indeed "there is no single widely accepted criterion for assessing automaticity" (Hélie et al.: 1016), the one phenomenon which it has been used to characterise, and

which appears most relevant to this study, relates to the process of skill acquisition, which will be covered in more depth in Chapter 4.

This chapter brought psychological research on learning and the memory to bear on the issue of non-formal learning, reviewing relevant literature in order to address the ways in which a cross-disciplinary approach to learning (in its broadest sense) might enrich this project. Contemporary research which focused on aspects of psychology (in particular cognitive psychology) and neuroscience was reviewed_so that museum/gallery behaviour might be conceptualised in ways which, up till now, have largely been ignored by the discipline of museum studies. Theories of modelling, innate/preattentive processing and chunking - as well as the broader concept of automaticity - were included in order to show that the behaviour of visitors to museums and galleries might be thought of in terms of its psychological aspects and Chapter 7 of this thesis will seek to apply some of this research (with particular focus on the research relating to the memory) to the interview responses of individuals and their discussions of museum/gallery visiting. One of the aspirations of this project was to study non-formal learning by utilising research from a diverse range of fields, the platform for which has been laid by this chapter.

The next chapter will bring concepts of skill acquisition together with literature on visitor behaviour and the Bourdieusian concepts of cultural capital, field theory and habitus in order to propose a methodological tool for the practical study of non-formal learning in context.

Chapter 4 – Methodological Development: The Dual Model and Cultural Capital

4.1 Introduction

This chapter will focus on the development of appropriate methodological tools in order to study non-formal learning. To this end there are discussions based upon skill acquisition, cultural capital, field theory and habitus, which set out to break down which areas of theory have been particularly important, culminating in the development of the dual model, which is outlined and discussed in depth as a combination of a model of cultural capital (4.5) and skill acquisition (4.2) in Section 4.6.

4.1.1 The Problem

In constructing a methodology it is important to determine exactly what one is trying to ascertain; what is the problem/question which needs solving/answering? In terms of this project – and its overarching theme of nonformal learning – pinpointing this starting point is not a straightforward issue. Given its under-researched nature, especially in museum/gallery settings, a key issue is the lack of an accepted methodological approach to studying the phenomenon; as a result an experimental approach is demanded, at least insofar as the tools used to structure data collection are concerned.

One of the central aims of the project is to understand and evaluate non-formal learning better and, with this in mind, a tool has been constructed with which to provide an insight into how people learn non-formally in museum/gallery spaces based upon the hypothesis that a person's level of cultural capital and skill acquisition (which will both be explained in more detail later) together influence how one is able to operate in museum environments.

4.1.2 The Approach

It was decided relatively early on in the project that a qualitative approach to data would be taken and adhered to throughout; primarily because qualitative research best allows one to get to the root of *why* something is happening as opposed to simply identifying *what* is going on (which is the strength of quantitative research). As Holstein and Gubrium point

out, such an approach works upon the premise of accessing the narratives and stories that people utilise to describe their sphere of existence (1995) and it is these stories, or "cultural stories" (Silverman 2005: 156), which will be most useful when trying to understand such a complicated and contested concept. This stands in contrast to either a quantitative or a combined – mixed methods (quantitative and qualitative) – approach, both of which are useful in certain situations, but would be inappropriate here. As Bryman states, "in qualitative research, there is an emphasis on greater generality in the formulation of initial research ideas and on interviewees' own perspectives" (2008: 437): rendering it ideal in terms of the relative openness of the original topic and the inherent focus on individuals and their individual learning.

Furthermore, such an approach allows one to examine the "sources and nature" of a participant's "frame of explanation" (Glassner & Loughlin 1987: 35) that is to say, it allows for an exploration of the origins and properties of the ways in which participants view (and describe) their world, and in particular (in this case) their 'learning'. This 'frame' is a vital component of the project, given its relationship to concepts such as cultural capital; Section 4.4 addresses the contextual ability of field theory as a means of studying this interplay between capital/habitus and the field of activity.

A fundamentally interpretivist position was adopted toward the research, emphasising the "context-bound" nature of any findings and the importance of "meanings" to the construction of people's social worlds (Livesey 2006: 3). Furthermore, it should be noted that:

The interpretivist position means giving up the idea that an interview is a way of finding out about some reality - objectively recording the beliefs, attitudes or cognitive processes of a person. It is not just a matter of recognising that the observer inevitably effects what is being observed, so that what is discovered is contaminated by the presence of the interviewer. It is that the material is created through the interviewer's involvement ... The interview is a context in which people will give accounts (Stratton, 1997:117).

This was an important consideration when it came to interpreting the gathered data and making sense of what participants said and did, covered in more depth in Chapter 5.

4.2 Skill Acquisition

In terms of the connection between learning and museums/galleries, there is a wide range of literature which places emphasis on the learning of skills within the museum environment (e.g. Enquire 2006) and the uniqueness of this environment when it comes to the development of a broad range of different skills (IMLS 2009).

This section will consider the links between the process of skill acquisition and implicit or non-formal learning. The process of skill acquisition – gaining and improving your ability to complete some task – is not necessarily implicit in itself: consider being explicitly taught how to ride a bicycle. However, the skill that results – and the practice of re-using this skill once you have learnt it – often takes place without need for conscious thought.

Skill acquisition is, according to Eraut, closely linked to what he describes as the "intuitive mode of cognition" (2000: 22). This sense of intuition, he argues, is strongly connected to prior experience and the use of tacit knowledge; even if such knowledge can be explicitly repeated, when using our intuition we make use of a tacit or implicit form of the knowledge because it is quicker (ibid.). He highlights the linkage of intuition and skill acquisition by citing the work of Hubert Dreyfus and Stuart Dreyfus and their 'Model of Skill Acquisition' (Dreyfus & Dreyfus 1986).

Dreyfus and Dreyfus describe their theory of intuition as follows, utilising the example of riding a bicycle:

You probably know how to ride a bicycle. Does that mean you can formulate specific rules that would successfully teach someone else how to do it? ... You can ride a bicycle because you possess something called 'know-how,' which you acquired from practice and sometimes painful experience. The fact that you can't put what you have learned into words means that know-how is not accessible to you in the form of facts and rules. If it were, we would say that you 'know that' certain rules produce proficient bicycle riding (Dreyfus & Dreyfus 1986: 16).

The model of skill acquisition was originally developed by Dreyfus and Dreyfus in response to artificial intelligence; as a means of demonstrating what was inherently 'special' about humans and their mode of learning and acquiring skills, in contrast to the analogy drawn by Fitts and Posner between humans and computers (1967: 11). Their exemplifier is the process of learning to ride a bike; at first, a beginner bike-rider will use conscious rules taught to him/her (often by his/her parents), such as 'keep your body upright' and 'constantly keep pedalling'. However, with time, as you become more competent and proficient at the skill, these conscious rules are dispensed with and a sense of intuition ('know-how') takes over which, if asked to verbally explain, you cannot.

An early example of the Dreyfus model can be seen below in Figure 18 which breaks down the process of skill acquisition into a number of characteristics which are plotted against various skill levels (ranging from novice to master); the further along the scale you go, the greater level of skill you possess, the more likely it is that you will be able to use 'know-how' or intuition. A more detailed, later, version of this model can be seen in the left-hand column of Figure 22 in Section 4.6.

Skill Level Mental Function	Novice	Competent	Proficient	Expert	Master
Recollection	Non- Situational	Situational	Situational	Situational	Situational
Recognition	Decomposed	Decomposed	Holistic	Holistic	Holistic
Decision	Analytical	Analytical	Analytical	Intuitive	Intuitive
Awareness	Monitoring	Monitoring	Monitoring	Monitoring	Absorbed

Figure 18: Mental functioning characteristics of skill levels (Dreyfus & Dreyfus 1980).

The key change in the model takes place between those who are competent or proficient at a given skill, and those that are expert: "the two highest levels of skill ... are characterized by a rapid, fluid, involved kind of behaviour that bears no apparent similarity to the slow, detached reasoning of the problem-solving process" (Dreyfus & Dreyfus 1986: 27).

The model of skill acquisition has been widely used since its inception in 1980, in a range of diverse areas, explored below, including its widespread use in nursing; its relevance in a seafaring context; and its use in clinical settings. The original research undertaken by the Dreyfus brothers studied aircraft pilots and chess players.

Benner's work has consistently used the Dreyfus model of skill acquisition in reference to nursing practice, in particular her 2004 paper gives accounts of a number of participants at various stages of a nursing career, classifying them into the five categories proposed by Dreyfus and Dreyfus (Benner 2004: 191-197). She states that "the model was also useful in helping us articulate knowledge and skill embedded in the practice of nursing" (ibid.: 191) and that "it allows that a practitioner may be at different levels of skill in different areas of practice based on the particular practitioner's background experience and knowledge" (ibid.: 198). This, context-relevant, aspect of the model is one of its great strengths according to Benner.

Benner's interpretation of the model is not without criticism; Hargreaves and Delya (2001) problematise the example of a paediatric nurse who moves from the stage of 'novice' to that of 'competent' far more quickly, when she moves into a new (at first unfamiliar) role, than Benner predicts. However, given that there were undoubtedly transferable skills between the two roles (which, although different, were nonetheless still within the broader discipline of nursing) this is to be expected. Smith and Kosslyn pointed out that skill learning can "generalize to new instances or exemplars that were not encountered during learning" (2007: 234) and Evans recognised that "people do take things with them into new jobs and occupations" when discussing skills levels (2002: 82-3). In fact, the rate at which one moves through the stages in the model of skill acquisition may well be regulated by the level of context specific cultural capital one has – one may be proficient in a given set of skills

whilst being a novice when it comes to different, unrelated skills – which will be discussed later.

Knudsen utilises the model of skill acquisition in a totally different context when describing seafarers' reluctance to follow written procedures, which do not allow for the intuition and particular level of expertise that experienced seafarers possess:

> The model shows a qualitative jump from novice level, where behaviour is strictly rule based, to expert level, where behaviour is situational and intuitive. It explains why seafarers experience rule following as a case of regression disregarding their proficiency and experience (Knudsen 2009: 296).

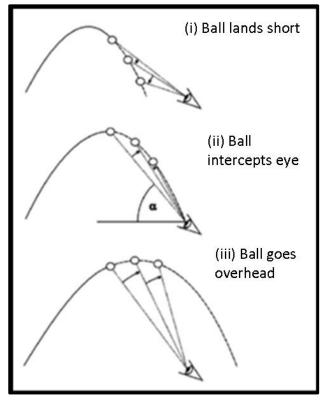
As a final example of how the Dreyfus model is applied in context, Carraccio et al. look more generally at the model in the clinical profession, referring to the way those being trained in the profession learn to recognise varying illnesses, at first through rule-based elements, and then by recognising specific "illness scripts" (sets of symptoms), and finally by what they describe as the individual storing of the illness scripts as "instance scripts" (the intuitive searching of a 'database' of illness scripts in order to find a match in any given situation) (2008: 761-2). Importantly, this paper points out that:

The stages [e.g., "novice"] are mere callouts in the evolution of that developmental continuum. The transition from stage to stage is a gradual one, and a learner may be at different stages for his or her different skill sets (ibid.: 762).

Despite the categorisation, in Figure 18, of distinct levels in the model, in reality a continuum is represented. The stages are delimited by Dreyfus and Dreyfus for ease of comprehension rather than because they represent wholly different phenomena.

The Dreyfus model could be contrasted with the three levels of skill learning proposed by Fitts and Posner: breaking the process down into the cognitive stage; associative stage; and autonomous stage (1967). This broad categorisation shares the same basic transition towards expertise: the autonomous stage representing behaviour which is "highly accurate, rapidly executed and relatively automatic (Smith & Kosslyn 2007: 233).

In contrast to the intuitive conception of skill acquisition, Hélie et al. argue that "it is important to distinguish between automaticity and expertise" (2010: 1016), citing Palmeri et al., who state that "experts know more than novices" and that "they can verbalize more properties, describe more relationships, make more inferences" (2004: 378), which, as both sets of authors argue, means that expertise itself is not characterised by automaticity. However, in neither case do the authors truly address the fact that experts, whilst potentially demonstrating their expertise through explicit means, can also do so implicitly; and it is this implicit skill expertise which shares qualities with the concept of automaticity as previously discussed in Chapter 3.



Reed et al. suggest that although bicycle riding is often cited as an example of implicit learning (given that although many people are able to ride a bicycle they are unable to describe, explicitly, how they are doing so (e.g. they are able to balance etc. but are not able to report how the physics of their actions work)), there is an argument that it cannot, in

Figure 19: Three patterns of seeing approaching objects, depending on where they are going (Reed et al. 2010: 3).

fact, be discussed in implicit/explicit terms at all

because the sensory information which underlies the skill is inherently not reportable (2010: 4). As a result of the problems associated with this example, they select their own (ball catching) which they believe overcomes such issues. Their argument is that the sensory information which underlies catching a ball is entirely reportable: changing your gaze either up or down and resultantly moving either forwards or backwards (ibid.); see Figure 19. They go on to use their research into ball-catching to argue the presence of implicit learning/knowledge and to rationalise its usage: they suggest that conscious knowledge of 'how' to catch a ball (how to read its angle of elevation etc.) would actually be detrimental to catching it successfully, and in fact the non-conscious ability to use implicit learning/knowledge enables an individual to catch a ball (preventing conscious parts of the brain from interfering) (ibid.: 12-13). Whilst there is a range of literature dealing with what implicit learning is and how it may be studied, this is one of very few studies to attempt to understand why it exists, and it presents a compelling argument for the role of the unconscious, backed up by experimental data.

In terms of this study, focused on non-formal learning in museums and galleries, this model of skill acquisition can be applied contextually to the process of visiting museums/galleries themselves:

> Many psychological and educational theories conceive the art experience as constructive deployment of skill ... individual variations in such competence significantly determine the different levels of engagement, ranging from repeated and skilled users to casual consumers, who tend to disperse the object (art) experiences within a broad range of other recreational experiences that the museum has to offer (Kesner 2006: 5)

In order to investigate how people acquire the skill of using museums and galleries it will be important to consider what individuals 'bring to the table' as it were; what they contribute to their experiences. Cultural capital will be explored as a potential means of representing a person's prior experiences and identity and the way this shapes their museum visits and the non-formal learning experiences they undertake.

4.3 Cultural Capital

The theory of cultural capital was advanced by Bourdieu (1986) and is a way of signifying the knowledge, experiences and identity 'carried around' by people, in this case museum visitors, which informs the way they behave and act. This section seeks to explore this theory and its relevance to non-formal learning in a contextual sense.

Being an oft-used concept there are a number of definitions which need to be dissected. It is worth beginning with one of the more lucid available, that of Gershuny, who states that cultural capital "refers to specific knowledge related to the participation in, and enjoyment of, the various forms of consumption in the society" (2002: 8), that is to say, it is the embodiment of one's cultural consumption. He notes that culture does not necessarily simply refer to 'high culture' (art, opera etc.), although these are included, but also to 'popular culture', i.e. things such as sports participation and spectatorship. Cultural capital is the knowledge that enables one to participate in a cultural activity.

Crooke summarises Bourdieu's approach to cultural capital as taking three forms: "it is embodied through knowledge, objectified by the representation of cultural goods (such as pictures and books), and institutionalised, perhaps by educational achievements" (Crooke 2007: 65). She goes on to clarify that cultural preference and taste can be a form of cultural capital (ibid.: 66); influencing what you do, who you do it with etc.

Meanwhile, Bourdieu himself stated that:

The accumulation of cultural capital in the embodied state, i.e. in the form of what is called culture, cultivation, *Bildung*, presupposes a process of embodiment, incorporation, which, insofar as it implies a labor of inculcation and assimilation, costs time, time which must be invested personally (Bourdieu 1986: 244).

Bourdieu suggested that cultural capital "can be acquired, to a varying extent, depending on the period, the society, and the social class, in the absence of any deliberate inculcation, and therefore quite unconsciously" (ibid.: 245). He highlights a number of characteristics of cultural capital that are important to consider: that it can be acquired through the investment of time; that society and social class influence one's capital; and that it can be acquired unconsciously (ibid.).

Brody stated that "of the many variables that influence learning in informal settings, the learner's relevant background knowledge and his or her existing internal conceptual framework were considered two of the most important" (2005: 605); cultural capital encapsulates both facets in terms of their relevance to museums/galleries. Brody went on to emphasise that a major theme in his work on learning was the role of prior knowledge (ibid.). Essentially the term is used, contextually, to refer to everything an individual brings with them (metaphorically) to a museum visit, whether that is prior knowledge, expectations, likes or dislikes.

Similarly Falk et al. describe learning as "a relative and constructed process ... it is assumed that each individual brings varied prior experiences and knowledge into a learning situation" which shapes the experience uniquely and situates the learning firmly within the context it was learned in (1998: 109).

The links between learning and a visitor's prior knowledge are further expounded by Anderson et al., who discuss the human constructivist view of learning which takes into account the prior knowledge and understanding of a visitor on their in-gallery learning as well as the role subsequent experiences can have on a continued transformation (2003), re-visiting the idea that learning in a museum is not necessarily bound by the walls of the institution or the confines of the visit itself. Falk and Dierking also consider the different factors that affect learning, and list eight of them in their work on the contextual model of learning.

Personal Context:

- 1. Motivation and expectations.
- 2. Prior knowledge, interests and beliefs.
- 3. Choice and control.

Sociocultural Context:

- 4. Within-group sociocultural mediation.
- 5. Facilitated mediation by others.

Physical Context:

- 6. Advance organisers and orientation.
- 7. Design.
- 8. Reinforcing events and experiences outside the museum.
- (Falk & Dierking 2000: 148).

The first three factors listed by Falk and Dierking, falling within the 'personal context', clearly echo already discussed elements which contribute to an individual's cultural capital; meanwhile, the final factor ('reinforcing events

and experiences outside the museum') points towards the idea that a nonformal learning experience is not bound by the museum visit itself. Falk and Dierking make the point that these factors help us know more about *how* visitors learn, but less about *what* is actually learnt (ibid.: 149); similarly, cultural capital may help with the former but not necessarily the latter, which is one of the driving forces behind the combination of cultural capital and skill acquisition (as discussed later in the chapter); with the aim being to investigate both.

Dudzinska-Przesmitzki and Grenier more simply state that "adult visitors do not walk into museums as blank slates" but instead bring with them "cognitive and emotional baggage that will affect what they learn from their museum experience" (2008: 18). This dispenses with the need to delineate knowledge from experience etc.; simply referring to it as 'baggage' – which is a relatively appropriate synonym for the cultural capital carried by visitors (although specifically, cultural capital refers to the contextual baggage that is relevant, in this instance, to a visitor's museum visit).

The role of cultural capital, in terms of its influence on implicit learning, is explicated by Ziori and Dienes, who state that "at an early stage of learning the explicit component dominates, as people try to apply rules and explain conceptual relations, but with increased experience, the implicit component takes over, as past exemplars are easily retrieved from memory" (2007: 621), suggesting that those with greater cultural capital ('increased experience') are better able to learn implicitly than those with less capital/experience. The experiments they carried out provide evidence that prior knowledge facilitates concept learning, showing "that categories whose features were integrated by prior knowledge were easier to learn than incoherent categories with unrelated features" (ibid.: 602).

Contextually it is important to ground this research in the field of museums and galleries, emphasising the connections between cultural capital and the original research aims/objectives. Newman draws out these links, describing cultural capital as "a form of capital that people are perceived to

need to fully benefit from museum and gallery visiting" (2005: 252). He goes on to cite Bourdieu and Darbel as a means of offering an explanation of the behaviour of museum and gallery visitors, who suggested that whilst everyone in society has the chance to "take advantage" of museums and works of art, in reality this possibility only existed for those with the appropriate level of cultural capital (Bourdieu & Darbel 1997: 37). An individual's level of cultural capital determines the extent to which they can 'decode' the meanings and displays of a given institution:

> [Cultural capital] is a useful way of explaining the accessibility or otherwise of museums, galleries and heritage sites. It determines the ability of people to decode messages that have been encoded and so fundamentally influences their ability to make meaning out of the resources that are available to them (Newman 2005: 259).

Cultural capital represents the prior experiences, knowledge and identity that are metaphorically 'brought with' a visitor to a museum or gallery, determining how they interpret and decode a museum visit. It is the framing device for an individual's learning experience and will be used in synchronisation with the concept of skill acquisition as a tool for investigating non-formal learning.

4.4 Field Theory & Habitus

Field theory and habitus were addressed by Bourdieu as related concepts, both to each other and to capital. Indeed he expressed the links between the three within an equation:

> (Habitus x Capital) + Field = Practice (Bourdieu 1984: 101).

Their close proximity to both capital and practice demands that they be explored here, as means of conceptualising the arena in which people behave (field) and the way in which they utilise cultural capital (habitus).

In cultural terms a field can be thought of as a web of connections between agents, all of whom are united by a common theme and are competing for power and position in relation to each other. For example, in the field of art, there are artists, curators, and patrons etc. who each compete for power – the power to declare works 'art'; the power to bestow value or to shape the canon. Agents use capital and habitus in order to act within a field, the latter of which was defined by Reay "as embodiment" (2004: 432) which "structures the perception of [a particular] world as well as action in that world" (Bourdieu 1998: 81). Subsequently the two terms, 'field' and 'habitus', can be thought of together: "field defines the structure of the social setting in which habitus operates" (Swartz 1997: 117).

Bourdieu defined field theory as "a network of objective relations … between positions – for example the position corresponding to a genre like the novel … or from another point of view, the position locating a review, a salon, or a circle" (1996: 231). He explained that:

> These positions are objectively defined, in their existence and in the determinations they impose upon their occupants, agents, or institutions, by their present and potential situation in the structure of the distribution of species of power (or capital) whose possession commands access to the specific profits that are at stake in the field, as well as by their objective relation to other positions (Bourdieu & Wacquant 1992: 97).

He made the point that if you "place someone in a different position within the field, or in a different field altogether ... they will behave differently – and will be more or less comfortable or ill at ease – depending upon their 'feel for the game'" (Bourdieu 1990: 61).

Bourdieu and Wacquant identified three key strategies adopted by agents within the field, those of 'conservation', 'succession' and 'subversion' (1992). Explanations of these three strategies can be seen in Figure 20.

Strategy	Explanation	
Conservation	Tend to be pursued by those who hold dominant positions	
	and enjoy seniority in the field.	
Succession	Attempts to gain access to dominant positions in a field and	
	are generally pursued by the new entrants.	
Subversion	Pursued by those who expect to gain little from the	
	dominant groups.	

Figure 20: Strategies for Interacting with fields (adapted from Swartz 1997: 125)

Bourdieu was specifically interested in higher-order fields, such as "the arts, industry, the law" (Smith 2001: 139). This project, concerned with people's

interactions with museums and galleries, will address the field of art, as well as a hypothetical field (or sub-field) of leisure.

In contrast to Bourdieu's theory of fields, Becker discussed the concept of the 'art world', consisting of all those people "whose activities are necessary to the production of the characteristic works which that world, and perhaps others as well, define as art" (1982: 34). This differs somewhat from the Bourdieusian concept of fields, focusing on the production process as well as devoting "considerable attention to trying to decide what is and isn't art, what is and isn't their kind of art, and who is and isn't an artist" (ibid.: 36). Whilst Becker's 'art worlds' do not expressly involve visitors to art museums and galleries, there are nonetheless similarities between 'fields' and 'worlds' (many "think that the ideas of field and world are simply two interchangeable approaches" (Pessin & Becker 2008: 372)): in both cases there is a "network" of links between participants (ibid.: 34-5) and in both the role of power and of dominance is central. However, Bourdieu noted that there were differences: primarily that - in contrast to 'art worlds' - the "artistic field is not reducible to a *population* ... linked by simple relations of *interaction* [original emphasis]" (1993: 35). As such, it is the greater complexity of field theory – and by implication the greater ability the theory has to conceptualise complex relationships and behaviour - which leads me to utilise it here, in preference to the concept of 'worlds'.

Whilst there are obvious connections that can be drawn between this study and the field of art, there is also an inherent interest in people's leisure time, which raises the question of whether a field of leisure might also be a useful concept. Such a field is envisaged to encompass how *everyone* spends such time as opposed to the "effective use of leisure" in the third age, described as a 'busy ethic' (Ekerdt 1986).

The competitive nature of fields, emphasised by Bourdieu, is reflected in some respects, in the reasons some people choose to do certain leisure activities, and the possibility that people compete for position in relation to each other (the idea that people may choose to visit a gallery with a reputation

for displaying high culture in order to appear 'highbrow', for instance). There is, undoubtedly, some form of hierarchy in a field of leisure: the level of cultural capital/habitus possessed by its inhabitants certainly determines people's ability to engage in various activities. Peillon described how agents steer their way through a field by utilising their habitus:

> It is through the habitus that agents in the field respond meaningfully to how a situation develops; they improvise a course of action, initiate unexpected moves. They display autonomy and flexibility mainly because they evolve within a world which is characterised by some looseness. Agents have, in this context, recourse to strategies as the situation develops and they steer a course between alternatives (Peillon 1998: 220).

People act within fields in certain ways, and will have habits and routine; there is nonetheless unpredictability in their choices. How people interact with the leisure industry, within their leisure time, is a fluid process which is, to paraphrase Peillon, 'characterised by some degree of looseness' (ibid.). As with any other field, according to Bourdieu, those possessing greater cultural capital, in relation to the field specifically, are better able to act within it and are able to act more fluidly and with greater improvisation (1990). There are comparisons that can be drawn between this and the work of Chan and Goldthorpe (2007), who studied data from the *Taking Part Survey* (DCMS 2007) and suggested groupings of people into 'omnivore', 'paucivore' and 'inactive' categories (partly based upon Peterson 1992); the first of which partake in a wide range of cultural activities regularly and, as such, are able to act more fluidly, given the greater choice of activities 'open' to them. In contrast, inactives or paucivores, those with less cultural capital, are more restricted in their choices of what to do and how to spend their leisure time.

I would suggest in the case of museum/gallery studies (or rather, in the case of studies concerned with visitors to these institutions) the field of leisure is conceptually a valid area for study. The actors within this field comprise the institutions and sites of leisure, as well as the people who use such sites; these can range from those relevant to the discipline of museology (e.g. an art gallery, a museum), but also, more widely, places such as cinemas, theatres etc.

Bourdieu's fields are competitive and are characterised by the competition, the struggle, for power. However, in the field of leisure the term 'competition' seems out of place: rarely do people actively and explicitly compete with each other for position and power, which begs the question; is this a field at all? In the field of leisure there are still actors/agents and there are still institutions, all of whom are connected by their relationships to each other. Agents still use capital and habitus in order to determine their behaviour in relation to the field but it is perhaps the case that the power struggles that are such a vital component of Bourdieu's fields are largely implicit (except amongst those adopting a 'busy ethic') amongst the participants in the field of leisure. Agents are normally aware of the existence of such fields and aware of the role they play in them; furthermore they are sometimes aware of how to control such fields e.g. the role played by patrons, collectors etc. in controlling and directly shaping the field of art (Hennion 1995). When discussing leisure, although people are obviously aware of the fact they are undertaking leisure activities, I would argue that they are not likely to be aware of the concept of a 'field of leisure' itself and as such are similarly not likely to be engaged in an explicit power struggle.

People acting within the field of leisure are still motivated to both engage and to achieve a 'higher' position within the field. Bourdieu and Darbel (1997) talk about the discomfiture associated with engaging in activities without possessing the requisite levels of cultural capital (in this case the working-class attending museums); the motivation for such people is to avoid these feelings of discomfort and disorientation. In a way there is still a form of competition taking place, although it is an internal competition between the self and the imagined 'ideal' of being able to visit/engage in any leisure activity (or in specific leisure activities that an individual feels excluded from) without feeling 'out of place'. In social psychology this is sometimes described as a tension between one's "possible selves" (Markus & Nurius 1986). Higgins' selfdiscrepancy theory (1987) suggested the presence of "the actual self (how one really is), the ideal self (how one would like to be), and the 'ought' self (how one thinks one ought to be)" (Martin et al. 2010: 657).

Prior notes that "much in Bourdieu's account has begun to appear dated and in need of supplementation" which he goes on to say is "not surprising given that both *The Love of Art* and *Distinction* drew on data collected during the 1960s, but it might also point to more fundamental gaps in Bourdieu's conceptual apparatus as a whole" (2005: 130). That is not to say that Bourdieu's basic concepts are not still good value and worthy of adoption, however, as Prior suggests, updating some of the theory may be a useful and, at times, necessary step. He suggests allowing, for instance, "the field concept more fluidity in order to explain overlapping fields, dissolving fields and processes of deautonomization that have begun to redefine how boundaries between art and popular culture are defined" (ibid.: 135).

There are further distinctions to make between this approach and Bourdieu: whilst Bourdieu concentrated largely on class as a determinate factor, others have focused on alternative differences between people and studied how these factors affect behaviour and practice. For instance, Scherger focused on the age of participants and how different age groups participated in cultural and leisure activities (2009: 38) whilst Grenfell and Hardy stated that "basic signifiers of habitus [an embodiment of capital] are taken to be age, geographical, social origins, artistic education, and commercial connections" (2003: 30). That is not to say we exist in a classless society shaped entirely by other factors, but it could point towards a more inclusive theory which is open to a range of determinates. Indeed, as Idler points out, "although age, cohort and period effects are conceptually distinct" they are "analytically inseparable" and often "appear in complex interactions" with one another (2006; 286).

As mentioned previously, Bourdieu originally conceived of fields as being relatively higher-order, comprising the law, academia etc. However, more recent theory has focused on smaller fields, or sub-fields of these higher fields (e.g. Lopes 2000; Grenfell & Hardy 2007) which allow for a closer study of action and practice. Such an approach allows one to concentrate not, necessarily, on much wider domains, but instead on more specific, focused ones. This idea was developed further by Tapp and Warren amongst others, who proposed the idea of activities as fields, such as the ability to "spot a

bargain, buy/sell" (2010: 210) or "a group of friends competing on 'do-ityourself' home improvement expertise" (ibid.: 202).

Prior talked of being nimble with Bourdieu's categories, "not to slavishly duplicate the master's tools, but to extend them, radicalize them and apply them" (2005: 136); field theory should not be viewed as fixed and inflexible but instead as malleable, to be turned to particular situations based upon need and intention. Although the field of leisure may not conform exactly to the definition advocated by Bourdieu it nonetheless can be conceived of as a *type* of field.

Chapter 6 comprises a discussion relating to modern art and field theory, based upon the responses of participants over the course of the practical study, which is detailed in Chapter 5. Given the nature of institutions involved in this study (museums and galleries) the more widely accepted field of art will also be explored, as well as that of leisure, as potential means of understanding behaviour in terms of museum/gallery visiting.

4.5 A Model of Cultural Capital

In the field of museum studies it is oft repeated that a visitor's prior knowledge, interests and motivations are a key factor in the shaping of their experience (Falk 2005 and Brody 2005 i.a.), coinciding with a shift towards a visitor-centric approach, characterised by the concept of 'New Museology' (Vergo 1989). In keeping with this focus I propose a model of visitors' cultural capital with which to explore the way visitors interact with and experience a museum/gallery environment. The use of this model, alongside the Dreyfus model of skill acquisition, will be discussed further in Section 4.6.

	Novice/ Advanced Beginner	Competent	Proficient/ Expert
Confidence & Comfort Behaviour & Adherence to Convention	 Finds a visit stressful Uncomfortable Ill at ease Unsure of the intended message Little knowledge of museum conventions (the museum code) 	 Prefer to visit with a group in order to feel validated and obtain social approval Unsure of whether they belong Keen to be seen 'fitting in' Relies partly on 'modelling' in order to be seen to b	 Confident to understand and interpret the museum message Happy to visit alone Understands and follows the 'museum code' without a reliance on observing others
	- Unsure of what behaviour to adopt, which responses to exhibit	determine appropriate behaviour	- Able to transfer skills to other similar settings
Orientation & Visit Plans	 Initially disorientated Likely to copy or follow others Very little idea of what they want to see or do 	 Potentially disorientated (especially if not a regular visitor to the specific institution) Relies on asking for advice /directions 	 A fixed and focused plan in place before visiting 'Efficient' mode of visiting Little reliance on prolonged orientation activities
Opinions & Interpretations	 Relies almost entirely on personal associations Unable to grasp meanings/decode messages 	 Makes personal connections, but not in isolation Quick to form judgements Reactive stance 	 Wide-reaching personal connections in conjunction with other evaluative techniques Able to interpret and decode Strong emotional response which can be justified
Knowledge & Learning	 More reliance on STM (short-term memory) Take things at a shallower (face value) level Use explicit techniques to try and apply rules 	 Some connections between existing knowledge and the experience Uses a mixture of explicit and implicit components (using explicit rules and implicit connections from memory) Struggles to look for and analyse formal elements or use appropriate vocabulary 	 Views learning as a key reason for visiting Uses prior knowledge to make connections Consolidates LTM (long- term memory) Creates bridges between different concepts

Figure 21: Proposed model of cultural capital.

4.5.1 Confidence & Comfort

The first category which I have chosen as a means of identifying different stages of cultural capital involves the confidence of visitors and the level of comfort they feel and exhibit whilst visiting.

At one end of this scale Falk and Dierking note that "walking into a museum where you have never previously been before, especially if you have not been to many museums previously, can be tremendously stressful" (2000: 114) whilst Hood's research has shown that people classed as 'nonparticipants' (non-visitors) desire to feel "comfortable and at ease in their surroundings"; a feature they find lacking in museum or gallery settings (2004: 153).

Hood uses three categories (nonparticipants, occasional visitors and frequent visitors) to describe people and these broadly correspond to the stages of cultural capital I have used (since cultural capital can be seen as a direct product of exposure to culture (Gershuny 2002: 8-9) and a desire to be exposed (Mason 2005: 210)). Accordingly, characteristics of each of these categories act as a useful barometer against which cultural capital can be measured. For instance, occasional visitors expressed a need to feel that "this is where my friends and I belong, a place where I feel at ease and am able to cope with the message" (Hood 2004: 154); the level of comfort for these 'competent' visitors is linked to the social element of their visit; they place importance upon being in a group ("where my friends and I belong") and feel far more comfortable visiting with other people, in contrast to 'frequent' (or 'proficient/expert') visitors who are "more likely to visit the museum alone" (ibid.).

Bourdieu and Darbel use class as a distinguishing factor between the participants in their research, noting that "the fact that working-class visitors prefer to come to the museum either with relatives or friends no doubt shows that they find in the group a means of warding off their feeling of unease" (1997: 52); those "unprepared" for a museum experience often experience feelings of "discomfiture" (ibid.: 94).

To further emphasise the importance of comfort levels as a distinguishing feature of the stages of cultural capital, research carried out by the Getty Center for Education in the Arts determined a number of causes that contributed to non-visitation as a result of a series of focus groups. One of the most predominant of these was "intimidation," described as being due to a lack of knowledge, feeling out of place or ill at ease (1990).

The polarisation between visitors who can be considered novices and experts is apparent in how confident and comfortable they each feel. People lacking the necessary cultural capital that comes from visiting regularly frequently feel: uncomfortable; ill at ease; and find the whole experience stressful, whilst their antitheses: find comfort in the visit; and feel confident enough to be alone (one of the key differentiating facets between them and competent visitors, who are more likely to visit, but will often only do so if part of a group).

4.5.2 Behaviour & Adherence to Convention

The category of 'Behaviour and Adherence to Convention' refers to what Hood calls the "museum code" (2004); the accepted form of behaviour in a museum/gallery environment, i.e. the way people are expected to behave and the conventions they are expected to follow. This 'museum code' is not standardised but is instead a product of specific institutions (a child-friendly science museum would not have the same 'code' as a white cube modern art gallery). Cultural capital allows people to interpret the institution they are visiting and to respond accordingly, based upon their knowledge (whether explicit or implicit) of that and other institutions.

Newman and McLean demonstrate the role of behaviour, or, at least, perceived behaviour, when describing the uneasiness of a visitor (who could be described as a 'novice'), stating that:

This may have been because he lacked the cultural capital needed to be sure that his social behaviour and responses were appropriate to the context of the art gallery, and he imagined others were judging this and finding it wanting (Newman & McLean 2006: 59).

Greater cultural capital gives visitors not only the knowledge of the 'correct' behaviour but also the confidence to not feel like they are behaving 'incorrectly'. The 'least cultivated' visitors are:

Unaware of the correct behaviour and above all concerned not to give themselves away by behaviour contrary to what they perceive to be the accepted decorum, they content themselves with reading the labels as discreetly as possible – if there are any. In short, they feel 'out of place' and they keep a check on themselves, for fear of drawing attention to themselves by some unseemly remark (Bourdieu & Darbel 1997: 51).

A further aspect of behaviour to consider is that of 'modelling': less proficient visitors are inclined to model their behaviour on others in order to behave conventionally (Koran et al. 1988), which will be discussed in further depth in 4.5.3 with reference to the way they orient themselves.

Whilst frequent ('expert') visitors "understand the 'museum code' of exhibits and objects," nonparticipants ('novices') have had "little preparation to read the 'museum code'" and find museums inaccessible and formidable places for this reason (Hood 2004: 153-4).

4.5.3 Orientation & Visit Plans

The different ways in which visitors orient themselves upon arriving in a museum/gallery are striking, with a number of significant contrasts between those with differing levels of cultural capital. Falk and Dierking draw a line between first-time or occasional visitors and frequent visitors (1992), which serves as a contrast between the two ends of my own scale. They describe first-time/occasional visitors as:

Initially disorientated; they spend the first few minutes in the museum determining what there is to see and in which direction to move ... the first few minutes in the museum are visually, and often aurally, overwhelming ... right after arriving at the museum, visitors often consult with other members of their family or group, or seek information from a guard or information desk attendant (Falk & Dierking 1992: 58-9).

Clearly visitors closer to the 'competent' category of cultural capital are more likely to know where to look for help (understanding that most museums have both fixed and hand-held maps, that there will be an information point near the entrance, etc.) than those 'novices' who may have never visited a museum or gallery before. But in both cases there is a lack of ability to quickly orient, which is unlike a frequent (or 'proficient/expert') visitor whose experience is far more "efficient"; using their "savvy" to eliminate aspects (or phases) such as orientation or "exhibit cruising" (ibid.: 62).

To return again to Bourdieu and Darbel (citing class as the distinguishing factor between participants' levels of cultural capital), "working-class visitors who venture into museums often feel out of place and always feel disoriented because they are not well prepared to confront the works on display" (1997: 93).

Falk et al. categorise visitors as having a strategy that is either "unfocused," "moderately focused," or "focused" (1998), which can broadly be used as a comparison to the three levels in the cultural capital model, given that two RCMG studies showed that the more regular a visitor (whether to a specific museum in question or not) the more fixed and focused the visit plan they had (2001a and 2001b).

As previously mentioned 'novice' and 'competent' visitors often model their behaviour on others, copying or even following other visitors in order to determine which way to go and how to behave (Koran et al. 1988). Barker discusses certain milieus as being "behaviour settings" (1968: 18), of which museums can be said to be one, where people's behaviour can be predicted. Although there is a certain neglect of the individual (and of individual differences) in his work, he nonetheless raises the important point that settings can impact upon behaviour and as Falk and Dierking indicate, "these patterns [of behaviour] are both learned and modeled" (1992: 64-5). Learning, essentially, how to visit a museum is a process that increases your cultural capital, and it is primarily achieved through modelling.

4.5.4 Opinions & Interpretations

Cultural capital can have an important impact upon the level of interpretation visitors are able to undertake and the range of meanings they are able decode in a museum or an art gallery. Furthermore, it can enable

people to express and justify their opinions (although that is not to say that 'novice' visitors do not have opinions).

The Meaning Making in Art Museums studies carried out by the RCMG (2001a and 2001b) showed that people used personal associations as a common method for interpreting artworks. It could be argued that those who do not possess an appropriate configuration of cultural capital rely more on their ability to make personal associations and are less likely to base evaluations of artworks on "compositional features and formal relations between pictorial elements" (Hekkert & van Wieringen 1996: 118).

The direct responses and reactions to artworks between different types of users were compared and contrasted by McDermott-Lewis: she involved two groups, both with an interest in art, but distinguished (in her terminology) as 'novices' ("visitors who rated themselves as having moderate to high interest in art and low to moderate knowledge") and 'advanced amateurs' ("knowledgeable visitors who pursue art as an avocation") (1990: 7). Because of the inherent interest in art shared by all participants, these categories can roughly be said to correspond to those of 'competent' (in the case of the McDermott-Lewis 'novice') and 'expert' (in the case of the 'advanced amateur') in the model of cultural capital. These terms will be used from now on for reasons of continuity.

Competent users were described as being "quick to form judgements" (ibid.: 13) in "need [of] a personal connection" (ibid.: 16) and as adopters of a "reactive stance" (ibid.: 11). In contrast, experts "generally accept that people's likes and dislikes are highly subjective" (ibid.: 31) and are more likely to have "an emotional response to a work of art [that] is an important part of their experience" (ibid.: 33). It should be noted that this was a relatively small-scale study involving 20 people of each category. However, the comparison between *reactive* 'competent' visitors and *proactive* 'experts' is one that mirrors the characteristics of these two groups in other areas, such as that of the visit plan, where frequent users with a lot of cultural capital will plan a visit and will not 'cruise' through an exhibition, in contrast to the wholly reactive stage of

"exhibit cruising" undertaken by those with less cultural capital (Falk & Dierking 1992).

With regards to the 'opinions' element of this section, an exploration of a scheme with young people in Liverpool, designed to increase their levels of cultural capital, showed that as the scheme progressed participants felt more able to express themselves, their ideas and their opinions. An increase in cultural capital coincided with an appreciation for different frames of reference and the increased ability to express facets of their own lives (Pope 2007).

4.5.5 Knowledge & Learning

This broad category covers some of the critical differentiations between how people learn and use knowledge when at different stages in the model of cultural capital. It relates to how people use their memory and their ability to store and retrieve information. It also includes people's attitudes toward 'learning' in terms of their motivation for visiting.

Brody notes that one of the key factors that shapes learning in informal settings is the "role of prior knowledge" (2005: 605). He goes on to expound this idea:

Learners' relevant prior conceptions can help form a type of cognitive anchor from new information acquired. The new associations then help build cognitive bridges for future understanding (Brody 2005: 606).

Cultural capital enables you to build bridges with new knowledge and concepts because it provides pre-existing knowledge which can be connected to. This idea is further explored, using a different frame of reference, by Martin et al. (2007).

Martin and his co-commentators describe consolidation of memories as hugely important in the development of Long-Term Memory (LTM), based on the rehearsal of information and concepts in Short-Term Memory (STM) or 'working memory' (ibid.). They hypothesise that a process they refer to as "elaborative rehearsal" is undertaken by relating new information with preexisting information in LTM; allowing greater meaning to be made from new information. This theory echoes Brody's and reinforces the notion that greater (deeper) learning, i.e. "making sense, taking meaning, interpretation and understanding" (Martin et al. 2007: 292-3), is aided by the presence of already established knowledge (an inevitable feature of cultural capital).

More specifically, Murphy and Allopenna discuss the role of interconnectedness in category learning: the ability to use prior knowledge to make sense of new categories, making them more meaningful and coherent. Their experiments compared the controlled learning of different categories, with the results showing that categories whose features could be aligned to participants' prior knowledge were much more successfully learned that "incoherent categories" which had a similar structure (Murphy & Allopenna 1994).

Continuing with the theme (and role) of prior knowledge, in their paper on the subject, Ziori and Dienes discuss the difference in implicit/explicitness of learning which not only resonates with the levels (or stages) present in the model of cultural capital, but also with those present in the Dreyfus model of skill acquisition (providing a strong link between the two):

> Maybe, for example, at an early stage of learning the explicit component dominates, as people try to apply rules and explain conceptual relations, but with increased experience, the implicit component takes over, as past exemplars are easily retrieved from memory (Ziori & Dienes 2007: 621).

In terms of the actual identifiable results of the effect of cultural capital on knowledge and learning, McDermott-Lewis' research showed that novice art enthusiasts do not possess the "ability to look for and analyze the formal elements in a work," (1990: 20) in contrast to more advanced participants who are able to undertake a more thorough "visual exploration" of works (ibid.: 30).

Finally, to depart from the effect of prior learning and cultural capital on new learning, this section of the model also relates to learning as motivation. Hood states that frequent visitors ('experts') list the opportunity to learn as one of the most important factors in deciding whether or not to visit a museum or gallery (unlike occasional visitors and nonparticipants) (2004: 153-4), whilst McDermott-Lewis finds the same of her advanced group (1990: 25).

4.6 The Dual Model

The formation of the model of cultural capital, and the recognition that the skill acquisition model may be useful, combine to necessitate the creation of a model which incorporates both, referred to here as the 'dual model', which can be seen below.

SKILL ACQUISITION MODEL	CULTURAL CAPITAL MODEL
Novice	Novice / Advanced Beginner
- Rigid adherence to taught rules or	- Finds visiting stressful
plans	- Unsure of what behaviour to adopt,
- Little situational perception	what response to exhibit
 No discretionary judgement 	- Initially disorientated, likely to copy or
	follow others
Advanced Beginner	- Unable to grasp meanings or decode
- Guidelines for action based on	intended messages - Often takes things on a shallow (face-
attributes or aspects (aspects are global characteristics of situations recognisable	value) level
only after some prior experience)	- Rarely consumes any form of culture
- Situational perception still limited	
- All attributes and aspects are treated	
separately and given equal importance	
Competent	Competent
- Coping with crowdedness	- Prefer to visit with a group in order to
-Now sees actions at least partially in	feel validated and obtain social approval
terms of longer-term goals - Conscious, deliberate planning	 Rely partly on 'modelling' in order to determine appropriate behaviour
- Standardised and routinised	- Quick to form judgements
procedures	- Able to make some connections and
	associations with existing memories but
	still uses some explicit rule-forming
	- Consumes a modest amount of a
	limited range of culture
Proficient	Proficient / Expert
- Sees situations holistically rather than	- Confident to understand and interpret
in terms of aspects	museum messages
- Sees what is most important in a	- Comfortable visiting alone
situation	- Able to transfer skills and behaviour to
- Perceives deviations from the normal	other (similar) settings
pattern	- Visits 'efficiently' with a fixed plan and
- Decision-making less laboured	direct route
- Uses maxims for guidance, whose meanings vary according to the situation	 Strong emotional response Creates connections and bridges
	between existing concepts in LTM, using
Expert	prior knowledge
- No longer relies on rules, guidelines or	- Frequently consumes a wide range of
maxims	culture
 Intuitive grasp of situations based on 	
deep tacit understanding	
- Analytic approaches used only in novel	
situations or when problems occur	
- Vision of what is possible Figure 22: The Dual Model	

Figure 22: The Dual Model

This model roughly matches up the stages on each side of it (novice to novice etc.), allowing for a comparison between the two halves and, hypothetically, a series of *shared* qualities. Whilst direct links can be made in some cases simply from Figure 22 (e.g. the similarity and interrelatedness of the characteristics "little situational perception" and "initially disorientated" from either side of the 'novice' level) one of the key aims of the methodology of this project is to test the appropriateness of the dual model and its ability to position people according to both their cultural capital and their skill acquisition, in museum/gallery environments.

Becker highlights the connection between ability/talent and cultural capital, claiming the former is the product of "an investment of time and cultural capital" (1964: 63-66) and the explicit connection between cultural capital and the impact of prior experience/learning on a museum visit would suggest that making connections between it and the process of non-formal learning is a valid theoretical stance which would benefit from empirical testing.

In terms of how the dual model was used in order to form a workable and practical method in order to study non-formal learning, the characteristics listed previously helped structure the questioning strategy employed (with the aim being to identify examples of these characteristics in participants' responses/behaviour) and acted as the jumping-off point for discussions with participants. This will be explored in much greater depth in the next chapter.

4.7 Other Models

Although the Dreyfus model and my own model of cultural capital have been utilised in this project, a number of other options were considered, which deal with development/learning in different ways, a selection of these are briefly touched upon below.

4.7.1 Housen Developmental Model

The Housen 'Developmental Model' is a series of stages which detail the viewing of artworks; how people differently view and react to art. Although not designed as a linear progression, there are certainly similarities, in its style, to

aspects of the dual model. A basic version of the model (minus characteristics) is shown below in Figure 23.

Stage	Type of Viewer	Explanation
Stage I	Accountive	The viewer is egocentric. (Deals with what is in the
		work of art.)
Stage II	Constructive	The viewer is aware of language of art but has no
		theoretical framework. (Interest is in how it was
		made.)
Stage III	Classifying	The viewer has theory and decodes according to
		knowledge. (Deals with who and why.)
Stage IV	Interpretive	The viewer searches for symbols to support
		emotional reactions. (Deals with the self in relation
		to art work.)
Stage V	Re-creative	The viewer integrates all previous levels. (Searches
		for problems and offers own solution.)

Figure 23: Housen's Developmental Model (adapted from DeSantis & Housen 2009: 10-11 and Fairchild 1991: 269).

Based upon developmental theory, Karin DeSantis and Abigail Housen developed the model in order to attempt to describe aesthetic development and it can be closely linked to the process of learning in gallery environments:

> The learner actively constructs understanding from processing her/his experience, making meaning of every new opportunity or bit of information. In other words, for learning to occur, an individual does something, experiences and thinks about the results of the action (including verbal 'actions'), and decides what these results mean to her/him (DeSantis & Housen 2009: 3).

The fact that the model attempts to understand "viewing from the viewer's perspective" (Housen 2007: 1), taking an individual over institutional approach, resonates with my own work. Housen maintained a link with learning – "aesthetic stage research offers salient insights into when and how learning takes place" (ibid.: 2) – and certain aspects of the model were referred back to when analysing responses from participants. However, its explicit focus on artworks, rather than on museum/gallery spaces more generally, and its overriding concern with the act of viewing, makes it a narrower and less useful tool in this instance.

4.7.2 SDOL & PRO Models

Self-directed learning (SDL) was described in brief in Chapter 2; Richard Banz's research on the subject focused on utilisation of the SDOL (Self-Directed Orientation toward Learning) Model (Banz 2008) and the PRO (Personal Responsibility Orientation) Model (Banz 2009). Banz noted that "museums attract and serve countless self-directed learners" but also recognised that "very little attention has been placed on SDL within the museum literature" (ibid.: 24), and so has variously adopted these two models in order to attempt to investigate the phenomenon. The SDOL model (adapted by Banz from Bonham 1989) breaks learners into three categories: other-directed learners; self-directed instructional learners; and self-directed inquiry learners. It then lists a number of characteristics for each subset (in much the same way as the skill acquisition model does for its individual levels). Meanwhile, in the PRO model (developed by Brockett & Hiemstra 1991) "learners utilize their personal responsibility through characteristics of the teaching-learning transaction along with their own personal learning characteristics to achieve self-direction in learning within a greater social context" (Banz 2009: 24). It was "designed to recognize both the differences and similarities between self-directed learning as an instructional method and learner self-direction as a personality characteristic" (Brockett & Hiemstra 1991) and was used by Banz to structure his research into self-directed learning within museum settings.

One of the fundamental reasons I have not pursued the routes explored by Banz is the key issue that self-directed learning is not non-formal learning, and as such, methods used to study the former are not necessarily directly applicable to the latter. Indeed, Banz notes that self-directed learning can refer to either formal or non-formal learning (2008: 45). Furthermore, both models focus on the 'self-direction' aspect of SDL and the characteristics listed in the SDOL model are largely concerned with planning, goals, motivation etc., and less with actual behaviour in terms of visiting, a particularly important aspect when studying non-formal learning in a museum/gallery context.

4.7.3 CGE Model

Emily Pringle's framework for understanding Contemporary Gallery Education (CGE) – funded through Arts Council England (ACE) and published by *engage* – was designed to be an appropriate means of mapping gallery learning,

which moves away from terms such as 'measuring' and 'assessing' that are often present in many of the other models of contextual learning.

Placing 'art practice' at the centre of the framework, Pringle highlights three key aspects to the model: "what the learning involves (active outcomes)"; "where the learning happens (context)"; and "how the learning develops (process)" (Pringle 2006: 39). In particular, she proposed that the CGE model would be useful in terms of:

- giving a broad overview of the nature of learning and teaching in the gallery,
- providing a development tool to aid gallery education practitioners who are setting up projects,
- providing an evaluation tool for mapping the CGE experience (Pringle 2006: 41).

Pringle's model focuses on what she describes as "the majority of CGE activities" which "involve intense, facilitated sessions" (ibid.: 13). Furthermore, she places the role of the artist as a key one within her framework which ultimately results in a model of learning inextricably linked to the art which it concerns.

It should be noted that the CGE model is an outcome of an ACE funded review (who are themselves part-funded by the UK government) and was inevitably produced with an external agenda in mind and as such it should be understood within this context (also a feature of the widely-used Generic Learning Outcomes (GLOs), discussed in Chapter 2).

Although an extremely useful way of thinking about contemporary gallery education, I do not intend to utilise the framework here. Primarily this decision relates to the fact that Pringle focuses on the slightly narrower interpretation of education within galleries, in particular defining galleries (for her purposes) as "art exhibition spaces" (ibid.: 6) and because she explicitly relates her framework to contemporary galleries. I deliberately did not want to restrict this study to contemporary galleries and did not want to restrict my study of learning to that which takes place solely within exhibition spaces. Instead I have adopted a broader approach which focuses on the learning

experiences connected to museums and galleries, including those that occur both before and after a visit, and which involves non-visitors (some of whom have never visited contemporary galleries) as well as those who visit regularly.

The rejection of these models, and in particular the Housen model, stems from a range of factors: in particular the desire to focus on the museum/gallery visit more widely, rather than restricting the study to the moment of interaction with an artwork/museum object specifically.

As the earlier parts of this chapter noted, the integration between skill acquisition and cultural capital represents a unique approach which may enable the study to access and explore both what a participant does when visiting a museum/gallery, but also, what they 'bring with them' in terms of capital (the mental 'baggage' that it is suggested plays an integral role in terms of individuals' experiences).

This chapter addressed the methodological issues surrounding the project and the problems that exist when investigating non-formal learning, particularly in the context of museums and galleries. In order to develop a methodological tool, therefore, models of skill acquisition and cultural capital were adopted/created and together form what has been termed the dual model. Bourdieu's concepts of cultural capital, habitus and field were all discussed, the latter of which will form the analytical basis for Chapter 6 (which proposes an understanding of behaviour according to positions within the field of art). The dual model itself is further explored (explicitly) in Chapter 9, which also seeks to assess the value of the tool both in terms of this project, and – going forward – in terms of future research.

The next chapter will set out the research study itself and explain how the dual model was utilised within the study, as well as providing the rationale behind choices that were made logistically and ethically in relation to the project.

Chapter 5 – The Research Study

5.1 Introduction

Engaging with a range of participants to both a) test out the dual model as a tool and b) investigate non-formal learning in museums and galleries in its own right, represents the central tenet of the practical research that was carried out and is detailed over the course of this chapter.

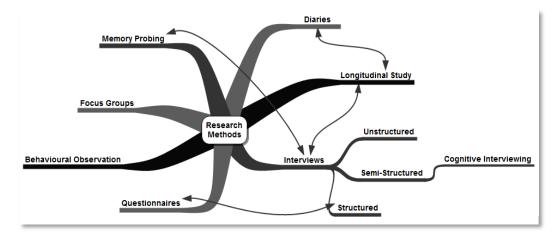
Practical steps that have been taken are laid out, as well as the rationale behind all the choices that were made (and other options that could have been pursued). There are sections of the chapter dealing with the interview guide, in both its preliminary and final stages; the development of this guide and its associated questions; and how this guide changed over time (sections 5.2 and 5.4).

A central section of the chapter is concerned with the pilot study that took place in order to test out the methodology; to refine the questions and approach; and to provide the researcher with valuable experience (section 5.3).

This chapter also deals with the logistics and ethics of the project in later sections (5.5 and 5.6), as well as providing an explanation of the methods of analysis that were used (section 5.7) in order to provide evidence and ideas for the discussion chapters (Chapters 6 - 9).

5.2 Method, Interview Format & Rationale

This section of the chapter will focus on the actual methods employed in the project, the format of these methods and the rationale behind the decisions made. The first section, 5.2.1, will detail the range of (largely) qualitative methods that were considered, their potential strengths and weaknesses and how they might have been used, either in isolation or in combination with other methods. Section 5.2.2 explains the method chosen – essentially a series of semi-structured interviews – and looks at some of the potential problems with this approach. Section 5.2.3 deals with the rationale behind some of the decisions made regarding participants, drawing comparisons between this study and others, whilst the final section, 5.2.4, sets out the preliminary interview guide that was used in the pilot tests.



5.2.1 Methods Explored

As Figure 24 shows, a range of methods were considered which, in their own right, would have provided useful data in terms of studying non-formal learning in museum/gallery settings. Some of these methods will be explored in more depth below; it should be noted that none of the following methods were adopted in their entirety, although a number were included in the final package of approaches which is covered in 5.2.2.

Behavioural Observation

When considering how people learn in a museum setting, one of the most obvious methods of researching the phenomenon would seem to be observing them, whilst they engage in such a visit. I have spoken at length in previous chapters about the issues associated with the identification of implicit learning/tacit knowledge, and observation would negate some of these issues of reportability, as well as reducing the impact of the researcher/interviewer on data gathered (Diamond 1999). However, there remain significant doubts regarding what can be inferred from simple observation, especially in the case of individual visitors who may not engage anyone else in conversation for the entire duration of their visit. It would be near impossible to validate claims based purely on observed physical behaviour, especially in the case of learning. There would also be a number of pragmatic issues regarding both the logistics and ethics of recording observations (using aural or visual means); a necessary

Figure 24: Concept Map of Research Methods

step given the difficulties that would be encountered in terms of coding and interpreting such data.

Cognitive Interviews

Used extensively in criminology, forensic and health studies (Bull & Waddington 2007), cognitive interviewing is a relatively formative technique in the social sciences/humanities; centred on the free recall of experience, it gives the participant room to talk without interruption and at length. The method deliberately aims to ask fewer questions than traditional interviewing and to allow the participants to make their own interpretations (Open University 2010). Given the difficulty in accessing relevant data regarding non-formal learning, it was thought that this method might be useful in some situations, although issues such as the interviewee going 'off-topic' would need to be dealt with, and an appreciation that this approach would not be universally useful was required. Furthermore, an important technique is "context reinstatement" (ibid.): recreating the context of original experiences in order to attain the most accurate recollections, which is problematic when considering a range of experiences (visits) over a long period of time. The exact usage of cognitive interviewing is dealt with in 5.2.2.

Post-visit Interviews

Divided into three different formats – 'structured', 'semi-structured', and 'unstructured' (informal conversational) (Diamond 1999) – post-visit interviews can provide rich and valuable qualitative data based upon direct museum experiences. Conducted at source, these can provide a level of unrivalled recall, whilst more removed interviews, perhaps days, weeks or even months after the event, can provide evidence of mentally 're-visiting' experiences. Intensive interviewing is a well-established method of data collection, with clear precedent in qualitative research.

The interviewer's questions ask the participant to describe and reflect upon his or her experiences in ways that seldom occur in everyday life. The interviewer is there to listen, to observe with sensitivity, and to encourage the person to respond (Charmaz 2006: 25-6).

Semi-structured interviews, in particular, allow for focused discussion, which is led by the interviewer, without constricting the interviewee to predetermined options in terms of their answers. Although there remain issues – such as contamination by the researcher – and questions – such as 'how far after a visit do you conduct an interview?' – which need consideration, this is nonetheless an attractive option which will be discussed in more depth in 5.2.2.

Mind-Mapping

'Mind-mapping' (or the closely associated technique 'concept-mapping') encourages participants to literally 'map' their thoughts and ideas on paper in a natural and non-linear format, in a way that is believed to mimic the "natural thinking process" (Meier 2007: 1). The technique "assumes that information is displayed in such a way that its arrangement on the page reveals something about the relationships inherent in the information represented in a person's mind" (Joiner 1998).

At best a methodology utilising such maps would help illustrate the thinking process being undertaken by participants (Stuart 1985), perhaps shedding light on some of the unconscious, underlying, structures associated with non-formal learning. However, shaping the process in order to both elicit relevant and useful information, and to avoid leading participants, is extremely difficult (Meier 2007: 2), fraught with methodological danger. Although the presence of a researcher is an issue in any form of data collection, in this instance – where a participant is directly asked to be creative and to express their thoughts and ideas in a physical (and permanent) form – any potential inhibition on the subject's part would largely devalue the results obtained. In contrast, if the researcher were not present to help focus the process, the likelihood of achieving a particularly relevant map would be remote without including elements such as pre-drawn boxes and topic headings: extremely leading activities akin to methods such as 'Diamond Ranking' (Clark 2011) which are, in isolation, inappropriate for an in-depth qualitative study.

Diaries

Given the nature of the 'dual model' and its perceived ability to map changes in people's cultural capital and skill acquisition, a longitudinal method – involving participants keeping a diary in which they were invited to record regular entries over a significant period of time – was investigated.

> The record is written instead of spoken and is distinctly authored, edited and selected ... the critical features of conversation, namely an awareness of social context, selfmonitoring and reflection, a strong sense of other, are often preserved in these non-face-to-face settings (Leinhardt et al. 2002: 103).

As well as the benefits of a diary project retaining participants' own voices, they can be additionally beneficial in terms of their ability to preserve memories which are either difficult to accurately recall or are often forgotten (Corti 1993). Furthermore, they can be "useful in accessing phenomena which are not amenable to observation because they are unfocused or take place outside set time or environmental boundaries and are likely to be altered by the presence of an observer" (Elliot 1997); directly relevant given the inherent problems associated with studying non-formal learning. In longitudinal terms, allowing participants to keep their own regular records also means that data gathered over an extended period (6 months for instance) is not limited to a small number of interviews (carried out only when the interviewer and interviewee are both able and willing) but is instead, potentially, constantly being created and added to. However, this highlights the key, overriding, problem with utilising diaries in this project: the practical considerations for participants. Successful diary projects are often self-completed (e.g. Wagenaar 1986) or involve considerable reimbursement (Leinhardt et al.'s 2002 study paid \$500 for each completed diary). The limitations, particularly financially, on a project of this type necessitate a pragmatic approach and the anticipated difficulty in finding a suitable number of willing participants for a long-term diary project make it an undesirable option, despite its obvious benefits. In addition, as Bolger et al. point out, "little is known about the effect of diary completion itself on participants' experience or responses" (2003: 592),

rendering diaries something of an unknown quantity in terms of the active role they might play regarding the memory/learning.

Memory Probing

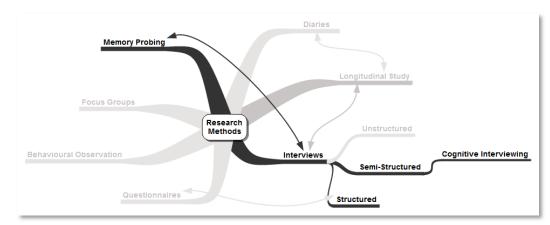
Memory probing is a technique based upon the use of specific preselected words/phrases/questions, with the intention being to cue and probe the recall of related and relevant memories. Whilst not a complete methodological approach, memory probing can be a useful task in terms of eliciting specific memories of experiences; for singling out those experiences which are remembered best (and exploring why this is the case); and for allowing participants to make connections between memories (a kind of verbal mind-map) (Haque & Conway 2001). This method focuses on the process of memory recall, raising issues of encoding and retrieval (Rubin et al. 1998) and is closely connected with a number of 'thinking aloud' experiments that have taken place (e.g. Burgess & Shallice 1996) which allow the researcher to analyse how connections are made between different strands of thought and participants' memories of different experiences.

Whilst a potentially useful tool in interview situations, there is no suggestion that in this type of project, specifically, memory probing would be suitable alone, given its relatively sparse range of outcomes. However, due to the previously discussed connections between non-formal learning and the memory (see Chapter 3) aspects of this probing technique were considered as part of the final interview process.

Focus Groups

A well-known research tool, focus groups are particularly useful when attempting to understand differences in opinion; when pilot-testing ideas; or when you want ideas to emerge from a group (Krueger & Casey 2000). They centre on group interaction and upon shared ideas (and the contrast of people's differing opinions) and are included here only to highlight their inappropriateness in relation to one of the key tenets of the project: participants' individual experiences. Focus groups are particularly unhelpful when addressing the individual, given the fact that participants are "speaking in

a specific context, within a specific culture, and so sometimes it may be difficult for the researcher to clearly identify an individual message" (Gibbs 1997: 4). As Gibbs also points out, focus groups are a form of, but are not the only form of, group interviews (ibid.: 2), and ruling out the former does not necessarily rule out the latter; in some circumstances – including one instance which presented itself during the course of data collection, when a husband and wife were interviewed together – group interviews are more practical and enable the inclusion of participants who would otherwise not be involved.



5.2.2 Final Method

Figure 25: Concept Map of Selected Research Methods

As indicated previously, a range of methods were combined in order to build up the final, complete, methodology. These were centred on a series of semi-structured interviews with two different types of participants: perceived as belonging to the 'novice' and 'expert' stages of the dual model. On a simple level these two groups were picked on the basis of their exposure to museum/gallery visiting (novices were thought to most likely be represented by irregular/rare visitors to such institutions, whilst experts were supposed to come from those who visited regularly and recently). Since one of the key aims of the adopted method was to test the usefulness and relevance of this dual model, it became apparent that participants at different 'predicted' levels would need to be included, and compared, and as such (given the limits on time and resources) the most 'extreme' and easily identifiable categories were selected. There is a more detailed exploration of the participants chosen in Section 5.2.3. The semi-structured interviews focused on an exploration of participants' lives; their views on museums/galleries; their visiting habits; and a number of their direct experiences.

As well as incorporating a number of straightforward questions into these interviews (which, in fact, made up the bulk of the interview guide), of the type described by Kvale (e.g., 'introducing questions', 'direct questions' or 'structuring questions') (1996: 133-35), I also utilised a number of previously discussed techniques. For instance, participants were asked to respond to cued words (e.g. 'gallery') and probed/encouraged to make their own connections (a combination of the experiments described by Burgess & Shallice (1996) and Haque & Conway (2001)). Furthermore, some of the methods used in cognitive interviewing were employed in certain situations, for instance the recall of a particular museum visit (often the most recent undertaken); these would involve asking participants to think back to that experience (context reinstatement) and then to describe, in as much detail as possible (and without interruption on the interviewer's part), every aspect of that experience (free recall).

The following sections discuss some of the problems inherent in the methods utilised (and the project as a whole) and some of the reasons such an approach has been selected, in spite of these limitations/problems.

Problems

Although the aforementioned method has been selected because it best matches up to the project's aims and objectives, this does not preclude it from scrutiny, and indeed, there are a number of caveats which must be mentioned in terms of analysing, interpreting and extrapolating the resultant data.

Although concerned with non-formal learning, the very nature of conducting interviews means that differentiating what a participant relates about what they learnt (whether directly or indirectly/explicitly or implicitly) from what they are able to *recall* is a near-impossible task.

Remembering precisely what was learned as opposed to recalled is difficult. In recalling a visit, the absence of a definite

notion of learning something new does not necessarily mean that learning did not take place (Kavanagh 2000: 151).

Indeed, historically even Arthur Melton (who was a pioneer of research into museum behaviour) noted that recall or recognition were too greatly emphasised in research which attempted to measure learning and memory (Melton 1967: 25). The differences in the encoding and retrieval of information in the memory have been explored in Chapter 3; there is virtually no way to be completely confident in the accuracy and reliability of responses given in interviews. However, this can be mitigated against by treating these responses as constructions: constantly remaining aware throughout the process of analysis that they are constructions borne of the moment (i.e. the situation/context that is the interview itself).

The presence of the researcher – and their effect on an interviewee/an interviewee's responses – is an area I have already touched upon, but is worth re-visiting here. Kavanagh describes the fact that memories themselves can be shaped by the context of recall:

Each situation demands something different from the teller, and the telling is adapted accordingly. The audience-teller relationship to some degree inevitably shapes the memory and determines how it is conveyed (Kavanagh 2000: 15).

A view which echoes van Dijck's assertion that memories are not just brought to mind at the point of recall but are actively re-written in their entirety (2007). Given the performative nature of an interview, there is a danger that participants' responses are conditioned by what they believe the interviewer wants to hear: "socially acceptable responses" (Economou 2004: 37). This is an ever-present concern across qualitative research methods and does not invalidate results; it will, however, be considered at later stages of the project: "researchers need to be aware of the potential of data collection methods, interventions and themselves to profoundly (and substantially) influence participants metacognition" (Anderson et al. 2009: 192).

Chapter 2 raised the issue that implicit learning is, at times, intrinsically un-reportable in a direct sense, which makes research based entirely upon

participant reports a contentious approach. Whilst this is one of the primary difficulties in non-formal learning research, I believe that (as previously explained) the method selected is the best in terms of studying the phenomenon and the problem of un-reportability is simply a hurdle that needs overcoming. As a result, a number of the questions included in the Interview Guide (Figure 26) aimed to target a participant's non-formal learning experiences, and an innovative approach to analysis was employed, combining methods, as described in 5.7. Furthermore, it was hoped that the dual model would bring a new approach to the field, helping to overcome this particular problem.

As well as these fundamental (although not necessarily detrimental) aspects of the research project, there are a myriad of other, relatively minor, matters which need to be taken into consideration. These include, as Falk notes, the fact that memories can take a significant amount of time to become permanent (2009: 135) and subsequent issues in terms of when (and how soon after museum visits) interviews are conducted; and issues in terms of bias and preconceptions on the part of the researcher (especially at key points such as data coding/analysis).

Reasons for Investigating

Too often museum research relies on superficial "standard end-ofsession form[s]" (Galloway & Stanley 2004: 126) in order to evaluate visitor experiences which is not only a limited approach, but one which has little hope of addressing the "subtle and unmeasurable experiences which visitors have in a gallery" (Economou 2004: 35). Beyond evidence which is purely anecdotal or speculative (Richey 2004), the dearth of genuinely investigative and evaluative research into non-formal learning in the museum/gallery provides reason alone to undertake such a project. Dawson and Jensen make the point that, on a wider scale, "to date little headway has been made in terms of developing a rigorous and valid theoretical understanding of museum visitors" (2011: 127), which can be extended to refer, also, to the more specialist concept of nonformal learning within this group. They go on to highlight the need for research

into non-visitors, which the 'novice' participants in this project will be composed of.

Regarding the specific approach adopted, Charmaz discusses the benefits of intensive interviewing:

The interviewer's questions ask the participant to describe and reflect upon his or her experiences in ways that seldom occur in everyday life. The interviewer is there to listen, to observe with sensitivity, and to encourage the person to respond (Charmaz 2006: 25-6).

Although imperfect as a methodology, the approach adopted aims to apply a framework to a phenomenon which, contextually at least, has so far resisted theorisation.

5.2.3 Participant Rationale

This section details the rationale behind some of the choices made, comparing this project to those of others in order to justify key decisions that were taken.

In order to select participants, a vital factor for consideration was that a diverse range of people, according to their expected position on the dual model, were required. Participants at either end of the scale, 'novices' and 'experts', were needed in order to test the hypothetical model. As such, rather than selecting people because of their Socio-Economic Classification (ONS 2008), or another external factor, it was proposed that they would be selected based upon their expected configuration of cultural capital/skill acquisition. As there is no single defining characteristic which can be used to differentiate people, and because the stages of the model are only delimited as to provide clarity of comprehension (and not because people are expected to neatly fall into any one category), it was suggested that broad generalisations would suffice in relation to providing a cross-section of participants who would reflect the various levels between them.

In terms of a sampling method, therefore, purposeful sampling was deemed to be the most logical method: selecting small numbers purposefully rather than simply randomly, in order to locate "information-rich cases for

study," yielding "insights and in-depth understanding rather than empirical generalizations" (Patton 2002: 231).

To broadly cover the required types of participants, subjects were drawn from groups of museum 'Friends' (who were regular visitors) or were identified individually (through contacts) as being non-visitors/non-users. Whilst vaguely conforming to the opposite ends of the spectrum represented in the dual model, it was hoped that there would be enough diversity in each group to reflect a range of levels.

As one of the largest local organisations able to provide access to both groups of Friends and traditional 'non-users' (and one with which links already existed), Tyne and Wear Archives and Museums were approached; they carry out a considerable amount of outreach work (TWAM 2008a) and have a number of Friends groups, of which the Friends of the Laing (TWAM 2008b) and the Friends of Shipley Art Gallery (Shipley Friends 2011) are two. Whilst the two Friends groups were happy to be involved, the outreach team were not able to identify suitable candidates and as a result a slightly different sampling policy was selected in order to recruit non-visitors. 'Snowball' or 'chain' sampling is "an approach for locating information-rich key informants or critical cases" and involves "asking a number of people who else to talk to," which results in the 'snowball' growing in size (Patton 2002: 237). This method is widely accepted as a potentially useful and appropriate means of obtaining "subjects with certain attributes or characteristics necessary in the study" (Berg 2007: 44) and was viewed as the best way of reaching suitable individuals (see Patton 2002, Hewitt 2010 and Silverman 2010). As a result, a combined snowball/chain and purposeful sampling method was utilised.

A number of studies have been highlighted below which relate to either memory or learning and which were utilised in terms of determining the number of participants employed.

David Anderson and colleagues have conducted various studies into World Expositions and Fairs, recruiting by advertising for people who have visited specific events, such as Montreal's 1967 World Fair and the 1970

Japanese World Exposition (Anderson & Shimizu 2007 and Anderson & Gosselin 2008). In both cases around 50 participants were interviewed, discussing their memories of the events in question.

McDermott-Lewis, meanwhile, undertook a study which involved a comparison between different types of consumers, roughly correlating (in my own dual model) to competent and expert users (1990). This study utilised 20 participants from each category and consisted of interviews directly after an art gallery visit. It has played a key part in the development of the dual model in terms of the characteristics used to describe each level of progress and as such constitutes a highly relevant study in the sense of informing my own project.

There are a number of other connected studies that deal with memory of museum visits (Stevenson 1991), people's emotional connections with artworks (Medved et al. 2004) and the testing of the Dreyfus model (Benner 2004). In all three instances around 80 participants were used for the main, interview-based, study.

Given the limitations of a doctoral project, a range of smaller studies proved more adept comparisons, such as the RCMG 'Making Meaning' projects (RCMG 2001a and 2001b) which focused on small groups (between 15 and 18 participants were used in each) and in-depth qualitative research. Jensen's 2010 study, meanwhile, utilised less than 10 participants in a series of interviews and group observations. In addition, Cupchik et al.'s 2009 study used 16 participants in their research which studied which areas of the brain were involved in viewing artworks (focusing on the differences between novice and experienced viewers).

As a baseline it was proposed that around 10 participants were interviewed from each group (resulting in approximately 20 participants in total). This was both a manageable amount given the inherent constraints, and is comparable to a number of the studies listed previously.

5.2.4 Preliminary Interview Guide

Below is the first, preliminary, version of the interview guide that was used in the pilot study (5.3); it is included here in order to show how it changed and developed as a result of its use in this study. There follows an explanation of how the guide was formed: why specific questions were chosen and phrased in particular ways.

Interview Gu All participa	
- 1. Tell me a	bout your life, who you are, what you do.
- 2. What ac	tivities do you like to do in your leisure time?
[Talk about o	each activity mentioned, ask how often, with whom, why they do it].
- 3. Have you	always done similar things? Did you use to do things that you don't do now?
	the term 'museums or art galleries' I am referring to all sorts of places; science nodern art galleries, natural history museums – anything that you think might I r a gallery.
- [If not alred	ady brought up] Do you ever visit museums or art galleries?
[For those w	ho do visit or have visited museums/galleries]:
You can use about your e	specific examples when answering the next questions, or just talk generally experiences:
- 4a. Why do	you visit museums/galleries?
- 5a. What w	ords would you use to describe a museum or an art gallery?
	anything you do before visiting a museum/gallery that relates to your visit? ding, try to find out whether they seek out information beforehand, whether eir visit].
	e what you would do upon arriving at a museum/gallery, how do you feel? to continue describing other aspects of the visit].
[For those w	ho have not visited a museum/gallery for some time/at all]:
- 4b. Why do	you not visit museums/galleries?
- 5b. Did you	visit museums/galleries when you were younger/with your parents?
- 6b. What w	vords would you associate with a museum/gallery?
	er areas of culture that they have expressed an interest in/may be more in than museums/galleries].

Figure 26: Preliminary Interview Guide

The interview was designed to be semi-structured, with questions acting as prompts rather than limiting the range of responses. Each question/topic was written/chosen so as to ideally provide a range of information which will be informed by the dual model, allowing a 'profile' to be created for each participant; mapping them on to the different stages of the model. In addition, it was hoped further information would help develop a more in-depth picture of non-formal learning amongst individuals.

The first question was designed to be a broad opener, allowing the participant to talk generally about their life, providing background information and helping them to feel at ease. This question provided the context for all later analysis. The second question, "What activities do you like to do in your leisure time?" is, again, broad and was designed to provide an indication of what type of consumer a participant is. Follow up questions probed each activity mentioned, in order to ascertain which cultural activities were undertaken and how often.

The third question, "Have you always done similar things? Did you use to do things that you don't do now?" provided an indication of a participant's habits, potentially showing how their cultural habits changed over time. Further probing was intended to reveal what activities they were involved in when younger; what influence their family and upbringing had on their behaviour.

After the general opening section of the interview the intention was then to direct the conversation towards, specifically, museums and galleries. Before doing so there was a short explanation designed to clarify what was meant by 'museums and galleries'.

The remainder of the interview guide was then split into two, dividing those who do visit museums/galleries from those that don't. Before asking these questions I proposed a short explanation designed to remove any preconceptions about what the interviewer may be asking for (in terms of examples or generalities).

Straightforwardly, question 4a was aimed at finding out the motivations for visiting of the participant: what reasons they gave for attending museums/galleries.

Question 5a adopted a subtler approach, with the intention that participants would express feelings and attitudes towards museums/galleries through the words that they chose. Levels of comfort, confidence and stress may have been established through the associative words chosen (with negative words carrying negative connotations concerning how someone feels).

The sixth question on the guide, 6a, sought to find out whether participants undertook a certain level of planning before visiting; how they approached and prepared for a visit.

Question 7a was designed to elicit information regarding orientation behaviour; how participants behaved when they arrive and what they know about the general rules or museum orientation (e.g. the presence of maps, guides etc.). It also consolidated question 5a, in terms of asking for the participants' feelings towards museums.

For those participants who were extremely infrequent visitors (or who did not visit museums/galleries at all), there were a different set of questions which may have been more suitable. The first of these, "Why do you not visit museums/galleries?" was formulated to draw out their pre-conceptions about museums/galleries, to understand how they felt about them and to explain their decision not to visit.

Question 5b allowed the interviewee to provide a history of their visiting (or lack of visiting), and was intended to shed some light on the hypothesis that those who did not visit when younger are less likely to visit when older (Hood 2004).

The final part of the interview guide allowed for a more thorough exploration of other areas of cultural consumption in which participants felt more comfortable or were more proficient. This theoretically allowed the

generalisability of the dual model to be tested; its ability to describe cultural capital and skill acquisition in other fields, distinct from museum/gallery visiting.

5.3 Pilot Study

Before commencing with a full-scale practical study, a smaller pilot test was carried out in order to assess the proposed interview guide (5.2.4) and trial some of the logistical issues. The importance of a pilot study should not be underestimated: forming a key part of the process of devising a qualitative interview project (Bryman 2008: 446); testing questions in order to make sure they "will actually work in practice – how people will understand them and how they are likely to respond" (Maxwell 1996: 75), "it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated" (Teijlingen & Hundley 2001: 1).

Furthermore, as Holloway states, pilot testing is advised if "the researcher lacks confidence or is a novice, particularly when using the interview technique" (1997: 121); especially relevant given my own previous lack of experience in terms of interviewing.

This section sets out the methodology behind this pilot study and details how the interview guide changed over the course of the study (see Figure 27 for the final interview guide used in the full-scale study).

5.3.1 Methodology

The dual aims of the pilot study were firstly to trial the interview guide and questions: testing their ability to access the kind of information which will help address the wider issue of how people learn non-formally in museums/galleries. And secondly to provide a 'practice run' of the whole process: providing me with some interviewing experience before the full project commenced. As such, it was important that the methodology closely mirrored (as much as was practicable) that which would be used in the fullscale fieldwork element.

It was decided, for reasons of pragmatism, to interview 6 participants selected from my own group of friends and family. In total 10 people were asked to participate (all of whom responded positively) and the first 6 that it was convenient to interview were included in the pilot study. Ultimately this provided the study with a spread of people, aged 19 to 56, including 3 males and 3 females. Interviewees were asked to select the time and location of the interview themselves so as to ensure that they did not feel too inconvenienced by the process (most were interviewed either in their own homes or in a neutral location such as a café). 5 of the interviewees were interviewed face-toface and one was interviewed online, using an Instant Messenger application (a method advocated by Fontes and O'Mahony (2008), which proved successful but was considered impractical for use in the full-scale study given that "older respondents in particular ... make far less use of this medium than younger internet users" (ibid.: 3) and many of the subjects in the final study were over 60). The interviews were recorded using a digital voice recorder, and then transcribed into Microsoft Word within a few days.

5.3.2 Issues Arising

A number of practical issues arose from the pilot test which needed to either be addressed or at least borne in mind once the full-scale study began; these are covered in this section.

Firstly, the interviews tended to only last around 30 minutes, which is shorter than could be considered ideal (Atkinson 2001 i.a.). This may have been because most of the participants were known to the interviewer; hence a relatively brief amount of time was spent discussing participants' lives more generally. It was thought important to spend more time on these initial questions, so that the analyses of individuals' responses were properly contextualised. Also, it should be noted that as the pilot study continued the length of interviews increased, indicating a growing confidence to probe answers and to ask follow-up questions.

The use of a voice recorder is an unavoidable aspect of the research, it would be hugely detrimental to both the interviews themselves and the

following analysis to try and notate responses by hand; unfortunately this did have a negative impact of some of the interviewees. Some of the participants, who are known to be very lucid and open normally, became suddenly introverted when they knew they were being recorded: giving short answers and showing visible signs of discomfort. It became important to reassure participants that the recordings would not be heard by anyone outside of the project and to attempt to make them feel as comfortable as possible, a step that was actively incorporated into later interviews.

Another important point to note from this study is that it was on a very small scale, using just 6 subjects. As such, although it certainly helped raise some issues and develop the interview guide, it was not expected to highlight every potential problem; resultantly, it remained vital to be adaptable and flexible in my approach, responding to circumstances as they occurred.

5.3.3 Interview Guide Development

This section deals with the development of the interview guide throughout the pilot study. After each interview the guide was appraised and changed accordingly based upon the results of the previous interview; feedback from the interviewee; and my own assessment. The changes made have been roughly categorised and are discussed below.

Prompts, Probes & Follow-ups

One of the key problems with the initial interview guide was its relative rigidity which, combined with a somewhat apprehensive interview approach, led to a series of un-explored and stand-alone responses. As a result, throughout the pilot study, probes and follow-up questions were added (Rubin & Rubin 2005), along with a number of 'prompts'. These secondary aspects to each question would not be asked at first, but instead could be used to probe answers and to help both the interviewer and interviewee.

Layout

Although a relatively minor point, the original layout of the interview guide was not particularly conducive to a smooth interview, with an overly complicated 'progression route' (i.e. a varying choice of which question to ask

based on what had gone before). This system was abandoned in favour of a simpler list of questions which could be individually omitted if irrelevant or if already covered. Essentially there was been a shift from a prescriptive guide to be followed, to a set of 'pointers' which could be used if needed to help keep the conversation moving.

Structure

The level of structure of the interview format was a subject of considerable internal debate. Over the course of the pilot study I experimented with structured and unstructured styles, eventually settling on a guide which is semi-structured/open-ended in parts, and more structured in others (as defined by Diamond 1999).

Etiquette

There were a number of refinements made during the process that are broadly characterised under this heading. Firstly, 'dual questions' (i.e. those which asked two different things of a participant at once, such as "When do you visit museums and who with?") were altered in order to not confuse the interviewees and 'muddy' responses. Secondly, a number of different ways to ask questions were trialled, in order that participants knew exactly what was being asked of them. And thirdly, although not directly affecting the interview guide, it was decided to make a conscious effort not to interrupt participants, so that they might speak unhindered. This was extended to incorporate a cognitive interview style with regards to some questions.

Initial Questions

The initial questions of the interview, those dealing with a participant's life more generally (who they are, what they do etc.) caused some problems in the pilot study. As a result these initial questions were simplified and enhanced with the addition of a number of probes/follow-up questions in order to try and elicit more information from interviewees. It was hoped that this, combined with the fact that in the full study subjects were not already known me, would provide a richer, more detailed set of responses.

Experiences & Examples

The final aspect of the interview guide which underwent significant changes during the pilot test phase of the project was the set of questions specifically concerning museum visiting. Upon analysis of the initial interviews it was apparent that there was not a sufficient amount of data related to the actual experiences of participants in museums/galleries. As a result questions which directly asked subjects to describe a museum visit, as well as others which asked for recollections of memorable or stand-out experiences, were included.

5.4 Final Guide

I'm going to start with some general questions, there are no right and wrong answers, I'm just interested in you and your life! Please feel free to say anything.

Tell me about your life, who you are, what you do.

- Job, student
- Family

What activities do you like to do in your leisure time?

- With whom, how often?
- In an evening, not special occasion.
- In the last week, day by day?
- On a day out?
- On holiday?

Have you always done similar things?

- Did you used to do things that you don't do now?
- Is there anything you do now that you have only recently started?
- Why have your habits changed?

Do you ever visit museums or art galleries? [Or country houses, castles, anything like that]

Why do you/ do you not visit museums/galleries?

- Has it always been like that? Did you visit when younger?
- Any other factors?

If I asked you to describe a museum to me, what words come into your mind?

• What about a gallery?

Is there anything you do before visiting a museum/gallery that relates to your visit?

• Do you try to find out any information, do you do any research, how?

[If I was to say, you are going to a museum tomorrow, how would that make you feel? Would you want to do anything before you visited, talk to anyone, find anything out?]

Describe what you would do upon arriving at a museum/gallery, how do you feel?

• Describe the visit, step by step.

When was the last time you visited a museum or gallery, can you remember?

- What did you do?
- Who did you go with?
- Why did you go?
- What stands out about the visit?
- How did you feel? Do you feel any differently about it now?
- What did you see?

Do any museum visits particularly stand out for you in your life?

- Where did you go, with whom?
- Why does it stand out?

Have you ever had any bad visits/trips to museums? What happened?

Figure 27: Final Interview Guide

5.5 Logistics of the Full Study

Concerned with the logistical elements of the full-scale data collection, this section is divided into two sub-sections, in turn dealing with who was involved in the project and how they were recruited; and how the interview process itself took place.

5.5.1 Who

As mentioned previously, two groups were primarily used for this project, 'experts' and 'novices'. In the case of the former, Tyne and Wear Archives and Museums provided the access points in terms of making contact with participants and pre-established groups were used, for the latter a snowball/chain sampling technique identified suitable participants, taking those previously involved in the project as starting points for these chains.

'Experts'

At first only the Friends of the Laing were contacted, through their secretary, and recruited for the project. Members were asked to self-select by the secretary of the group at their monthly meetings and my contact details were passed on. This process was, however, relatively slow and resulted in the successful completion of only four interviews. As a result it was decided to contact another TWAM group, the Friends of Shipley Art Gallery. Again I approached the group via their (acting) secretary and members were invited to participate internally, with interested parties' details passed to me. This allowed for a speedier resolution and a further four interviews were undertaken with a range of members.

'Novices'

Although originally it was planned to engage an outreach group via a local institution/organisation (such as BALTIC or TWAM) in order to provide enough suitable participants for the study, these approaches ultimately did not succeed and instead a new method, utilising a new sampling technique was adopted. People already involved in the project were invited to recommend friends or acquaintances who might be suitable (in relation to their lack of visiting) and willing. The benefits of snowball/chain sampling have already been discussed, in terms of the starting points for these 'chains', those previously

involved in the project were selected as it was envisaged the people they recommended might be similar in aspects such as age or leisure activities (aside from museum/gallery visiting). These similarities would later provide stronger basis for comparison between the two groups ('novices' and 'experts') – lessening the problems associated with making such comparisons between groups divided by a range of variables. The method of sampling employed was largely in response to the obvious difficulties associated with obtaining a group of people who do not engage in a given activity. A total of 8 participants were identified and interviewed. These participants were self-certified 'non-visitors': all responded negatively when asked whether they visited museums or galleries, which was deemed sufficient criteria to include them in the study.

5.5.2 How

Once interviewees had been selected, interviews were arranged at a time and location that was convenient for participants, most often in the gallery that there were a Friend of or in their own home (although other locations included the City Library in Newcastle).

Before interviews commenced all participants were asked to read and sign a consent form and a short explanation of the project, a copy of which is included in the appendix. Participants were asked if they minded the interview being recorded and were asked if they had any questions before we started.

Interviews were conducted in a deliberately informal manner, in order to put interviewees at ease (Rubin & Rubin 2005: 117), based around the final interview guide (5.4), but with the flexibility to change topic/focus/question order where necessary. The digital voice recorder was deliberately left on at the formal conclusion of interviews, in case subjects made any further, relevant comments.

5.6 Ethics

Because this project involved research with subjects there were ethical considerations that needed to be taken into account. This section briefly summarises these considerations and the steps that were taken in order to ensure the project was ethically and morally sound.

It was important that participants were appropriately informed at all stages of the project and that they consented to any information they provided being used, both in this thesis and via any other methods of dissemination pursued. As previously stated, in order to provide all subjects with some information on the project aims and expected outcomes, an information sheet was provided with the consent form. In addition, participants were asked both before and after interviews if they had any questions, and were provided with a copy of the consent form with contact details on of both the researcher and supervisor.

Furthermore, it remained vital that any information provided by participants was treated in a sensitive manner, and that any reference to such material was anonymised in order to protect the identity of those involved.

None of the participants were identified as being part of a specifically vulnerable group and those participants belonging to Friends groups were contacted through a 'gatekeeper' who then either arranged meetings or passed on contact details of those that were consenting and willing.

The project conformed to ethical guidelines provided by Newcastle University and received full ethical approval from the University's ethics committee.

5.7 Methods of Analysis

Once each interview had been completed it was uploaded to a computer and transcribed in Microsoft Word. The transcription was then coded using a mixture of the 'review' function in Word and the 'node' function in NVivo 8. Codes were derived from two sources: some were pre-determined by the theory that underpins the project whilst others emerged from the data itself (grounded theory methods).

The theoretical approach adopted is discussed in the next section, which is then followed by a further exploration of methods which were not utilised. The chapter finishes with a section on the logistics of analysis, involving

the ways in which NVivo was used and the practical steps that were taken in the analysis of data.

5.7.1 Grounded Theory

Whilst the dual model was used to inform the method of questioning and data collection, using just this model as an analytical approach, would lead to a relatively shallow exploration of responses and a lack of depth in terms of an evaluation of non-formal learning. As a result it was decided that a wider approach to analysis would be utilised which took inspiration, and its starting point, from the data itself. As Gordon-Finlayson states, the aim is to find a substantive theory rather than a grand theory, i.e. the theory will make sense in its own context "rather than positing universal laws that govern all of human behaviour" (2010: 156). He encourages the adoption of 'grounded theory' methods, which are cyclical in nature (going back and forth between the data and analysis). Grounded theory has a long history in qualitative research, dating back to Glaser and Strauss' book *The Discovery of Grounded Theory* in 1967; it is essentially based upon the concept of constructing theories literally "grounded in the data themselves" (Charmaz 2006: 2).

Grounded theory is particularly useful as it can be used in harmony with other methods, rather than as a heavily prescriptive technique to be used in isolation (ibid.: 9) and allows theory to be 'built' rather than simply tested (Strauss & Corbin 1990: 57): an approach which resonates especially well given the lack of accepted theory when dealing with the topic as a whole.

Strauss and Corbin go on to note that the method has the potential to enable a researcher to:

Provide the grounding, build the density, and develop the sensitivity and integration needed to generate a rich, tightly woven, explanatory theory that closely approximates the reality it represents (Strauss & Corbin 1990: 57).

It should be acknowledged that grounded theory also has the potential to be so broad as to provide a lack of any real focus, and as such it was important to work to clear aims, disregarding those codes which were not

relevant to a study of non-formal learning. The specific techniques employed will be explained in 5.7.3.

5.7.2 Rejected Methods

Although there are a myriad of potential approaches in terms of the analysis of qualitative data, the following two, discourse analysis and IPA (Interpretative Phenomenological Analysis) were both considered, for various reasons, for use in this project. As such they are discussed in more depth here.

Discourse Analysis

Discourse analysis was particularly appealing given the emphasis it places on the act of conversation between parties and on the co-constructed nature of shared dialogue. Given the issues of recall/reconstruction, when dealing with participants' memories, which have been previously discussed – and the effect of a researcher on these responses – this focus on meaning making (Widdowson 2007) seemed a highly relevant frame through which to view the subject. However, this approach perhaps goes too far in treating the various parties equally: whilst concerned with the impact of an interviewer it is nonetheless primarily the interviewee's responses which are of interest. Some of the actual methods for carrying out discourse analysis, as suggested by Wiggins and Riley (2010), did prove useful, including the practice of writing key words at regular intervals alongside each transcript, in a left-hand margin, whilst writing summaries of the text in the right-hand margin. This was incorporated into the analytic process as a counterpoint to coding in NVivo.

IPA

Interpretative Phenomenological Analysis (IPA) was originally developed and used in the field of psychology but has more recently been used by researchers in other fields, it is "concerned with trying to understand lived experience and with how participants themselves make sense of their experiences" (J. Smith 2009). Primarily interested in the individual, the approach also recognises the role of a researcher and its double hermeneutic method involves studying the "participant trying to make sense of the world" and the "researcher trying to make sense of the participant trying to make sense of the world" (Shaw 2010: 179). Furthermore because the method is

essentially idiographic in nature, specific claims are restricted to individuals rather than to populations (ibid.: 177).

One of the key drawbacks with the IPA method, however, is that it focuses on fully analysing all individual cases before making comparisons, as opposed to grounded theory, which, at a relatively early stage, makes comparisons across the corpus. Because of the method of data collection, over an extended period of time, and the need to make comparisons throughout between different groups of participants, it was not felt that IPA would be entirely suitable for use in this project. In addition, although the sample size used prohibits extending conclusions universally it was hoped that hypotheses about communities and populations would be possible through careful and insightful analysis; an option essentially ruled out in this potential instance given the constraints of IPA's method and theory.

5.7.3 *Logistics*

Grounded theory is "concerned with the development of theory out of data and ... the approach is iterative, or recursive ... meaning that data collection and analysis proceed in tandem, repeatedly referring back to each other" (Bryman 2008: 541). Resultantly the actual process of analysing using grounded theory methods involves a cyclical course of memo-writing, coding, and categorising with no pre-defined 'end-point'.

The coding itself can be divided into 'open coding', 'axial coding' and 'selected coding' (Boeiji 2010). Briefly, the three terms are explained in the table below).

Form of Coding	Explanation
Onen	Involves labelling each fragment, breaking data down into
Open	simple concepts and grouping these concepts together.
Axial	Building the simple concepts back up into more complex
AXIdi	categories; comparing and making connections.
	Selecting the core category(-ies), the central areas of
Selected	focus, and relating other codes to this; identifying
	relationships and a pattern of integration.

Figure 28: Different Forms of Coding (adapted from Strauss & Corbin 1990)

Alternatively, coding can be more simply split into 'initial coding' and 'selective/focused coding' (Charmaz 2006) which works similarly (to the Strauss & Corbin method) but leaves categorisation and relationship identification till later in the process. A prescriptive route was not followed in the analytic process; instead data was coded repeatedly, using a mixture of the techniques here, in conjunction with the making of notes or memos and the construction of concept maps. Essentially, these concept maps utilised the most relevant codes that had emerged throughout the coding process, and visually drew links between them, allowing conclusions and inferences to be made based upon the proposed relationships (Jackson & Trochim 2002). Similarly, Ryan and Bertrand suggest making cognitive maps which link participants' responses to their contexts: highlighting the connections between what people say and how that might have been influenced by the context in which they were saying it (2003). These visual methods of 'mapping' data were useful contrasts to the writing of memos and the organisation of codes and, subsequently - via NVivo - 'nodes' (divided into either individual or tree (hierarchical) forms) which represented the conglomeration of related codes (see Bryman 2008: 570-1).

The method of analysis used was not an all-encompassing process, and whilst every effort was taken to record/note down non-verbal aspects of the interviews, the act of transcribing can never result in a perfectly 'complete' record of an interview (Silverman 2003: 355). Given the limitations of the project, whilst attention was paid to especially long pauses, or particularly unusual behaviour, the majority of non-verbal elements had to be left out of the final analysis in order to make the activity manageable (indeed many instances were not recorded at source given the fact that a digital recorder was used as opposed to a video camera).

The following chapters centre on a series of discussions around key topics/subjects, either related directly to the project's aims/objectives or drawn from the data themselves in keeping with the method of grounded theory.

Chapter 6 - Discussion: 'Modern' Art and Field Theory

6.1 Introduction

The first discussion-based chapter, I will focus here on themes concerning modern/contemporary art and theories of field, cultural capital and habitus, derived partly from the data and partly from the literature (as discussed in Chapter 4). This section will set out relevant results from the practical study and analyse/discuss these in relation to relevant literature and the intended project outcomes.

In terms of field theory, which was introduced in Chapter 4, this chapter aims to map the differing levels of involvement and engagement with fields of art and leisure amongst participants, based upon the responses of participants in relation to issues of modern/contemporary art.

The themes discussed are grounded in the data themselves, although are interpreted based upon existing, relevant, theory. It became apparent that participants' views on, and perceptions of, 'modern art' were of particular interest and importance: the differences between their experiences of modern art and what was often referred to as 'traditional art' were clearly relevant to this study, when considering how people bring their prior experience to bear on current situations. Non-formal learning is context-bound and, as suggested in Chapter 4, is affected and regulated by visitors' cultural capital and habitus.

This chapter is divided into subsections which each deal with differing levels of involvement with, in particular, the field of art. In this context the 'field of art' refers to all those associated with the visual arts: museums, galleries, dealers, curators, patrons, artists themselves, and visitors. Section 6.3 introduces the basic theory behind this approach, outlining related studies which have delineated people into groups based upon their engagement and participation in the visual arts, particularly with reference to museum/gallery visiting. Sections 6.4 to 6.8, meanwhile, deal directly with responses by participants in this study, broadly separated into a typology of five proposed categories. These proceed incrementally, from positions of antipathy (section 6.4) through ones of opposition (section 6.5), questioning (section 6.6) and

negotiation (section 6.7), to a brief subsection on positions of dominance (section 6.8). This chapter culminates in an overarching discussion concerning how people interact with fields.

It should be mentioned here that the two terms 'modern' and 'contemporary' art are used synonymously in this chapter. Although they are not necessarily identical in terms of meaning (see T. Smith 2009) the vast majority of participants referred to 'modern' art in terms of its popular definition (essentially the contemporary - as it is often portrayed in the media, e.g. Jones 2011) as opposed to an art historical definition (e.g. Britt 1999 – art produced between the late nineteenth century and the 1970s). Whitehead raises the point that even the term 'contemporary' art is controversial and the dividing line between 'historical' and 'contemporary' is blurred at best due to conflicting views of differing contexts (further muddled by the use of the term 'modern') (2012: 41). However, when institutional and critical opinions disagree so widely it is hardly likely that the participants in this study were fully aware of the implications of their usage of terminology; as such it makes more sense to treat their references to either 'modern' or 'contemporary' art as different sides of the same coin: referring to art which is (for them) distinct from the historical.

There follows (section 6.2) a brief description of all the participants involved in the research.

6.2 Participants

As outlined in Chapter 5, the participants for this research project were selected because they were either perceived to be 'expert' or 'novice' users. Consequently, they were drawn from three sources, as described below (the two Friends groups representing the 'expert' users, the non-visitors the 'novices'). It should be noted that these were hypothetical and constructed terms, based upon the dual model discussed in Chapter 4. There will be an extensive discussion relating to the use of these terms and the model itself, in Chapter 9. As such, they will continue to be employed here for ease of use when describing participants from different points on the scale, on the

understanding that they do not necessarily relate to people's actual levels of engagement with fields, as will be discussed in this chapter.

This section briefly describes each participant and assigns each a label which will be used for all subsequent references.

6.2.1 Friends of the Laing Art Gallery

The Laing Art Gallery is located in the centre of Newcastle-upon-Tyne and contains "historic, modern and contemporary art" (TWAM 2008c). The gallery is managed by Tyne and Wear Archives and Museums on behalf of Newcastle City Council (ibid.). The gallery's location means it is easily accessible by public transport (being located in the city centre), but does not have its own parking. The building originally opened in 1904 and received a new entrance and series of children's galleries in the 1990s (Henderson 2010). The Laing is free to enter and administers a significant programme of events throughout the year, with a particular focus on family-friendly activities.

The gallery's collection focuses on "British oil paintings, watercolours, ceramics, silver and glassware" and has 'Designated Status' "in recognition of its national and international significance" (TWAM 2013a). The gallery attracts over a quarter of a million visitors each year (Henderson 2010) and the gallery's Friends group has hundreds of members.

The Friends of the Laing association costs £12 to join (annually) and has a number of committees and sub-committees. Amongst other things membership of the society allows access to a wide array of events and trips. The following members were interviewed as part of this research:

- Laing1: A retired female, aged 65 years old. Formerly worked as a qualified doctor (occupational medicine) but retired in 1993. University educated. Widowed with adult children.
- Laing2: A retired female, aged 64 years old. Formerly worked in IT at a range of companies, latterly at British Airways. Widowed with 3 adult children.
- Laing3: A retired female, aged 68 years old. Formerly worked in the banking sector but retired approximately 5 years ago. Married with adult children.

Laing4: A retired female, aged 63 years old. Formerly worked in retail as a sales assistant. Studied art and design at college but did not go to university. Single with no children.

6.2.2 Friends of the Shipley

The Shipley Art Gallery is located in Gateshead and describes itself as "a national centre for contemporary craft" whilst also boasting "a spectacular collection of fine art" (TWAM 2008d). The Shipley is managed by Tyne and Wear Archives and Museums on behalf of Gateshead Council.

Built in 1917, the Shipley gallery was founded as a result of a bequest of paintings by Joseph Shipley. The local solicitor originally left his collection to the City of Newcastle, who rejected the bequest owing to Shipley's specification that the works should not go to the Laing Gallery. As a result Gateshead Council adopted the works which are displayed in a specially designed building just off a major route to the South of Gateshead town centre. The gallery receives approximately 40,000 visitors a year (The Guardian 2013) (considerably less than the Laing).

The Shipley collection contains "nearly 800 paintings and collections of works on paper, decorative art and contemporary craft" and is regarded as one of the country's most important craft collections (TWAM 2013b). The Henry Rothschild Study Centre for 20th Century Ceramics opened at the gallery in 2010 and displays a large number of ceramics from this collection. The Shipley's programme of events which accompany the collections are focused heavily on craft and, as with many TWAM venues, family activities.

The Friends association is much smaller than the Laing's with only one regular committee (Thompson 2011) and costs £10 to join annually (Friends of Shipley Art Gallery 2011). The following members were interviewed as part of the research:

Shipley1: Retired male, aged 70 years old. Formerly worked in the Museums sector as a director, retired approximately 20 years ago. Does some work as a heritage consultant on a freelance basis. University educated. Married with adult children.

- Shipley2: Retired male, husband of Shipley3, aged 66 years old. Formerly worked as an engineer and later as a lecturer at Northumbria University. Married with adult children.
- Shipley3: Female housewife, wife of Shipley2, aged 66 years old. Married with adult children.
- Shipley4: Working female, aged 55 years old. Works as a pharmacist in Gateshead at a community pharmacy. Non-executive director of a local hospital. University educated. Widowed with four adult children.

6.2.3 Non-Visitors

The participants falling into the 'novices' category were not part of a uniting group but were instead selected as a result of purposeful sampling in order to ensure that they all described themselves as non-visitors to museums and galleries (when asked whether they visited either institution all of these participants replied negatively). Although described as 'non-visitors' the majority of participants in this category had visited at least once in the past (often as children), but no longer thought of themselves as active users. Brief descriptions of each are given below:

- NV1: Female, aged 21 years old, employed part-time. Achieved A-levels but did not go to University. Has a partner but no children.
- NV2: Unemployed male aged 23 years old, undertakes some volunteer work. University educated (has an undergraduate degree). Single with no children.
- NV3: Male, aged 19 years old, studying full-time at university for an undergraduate degree. Single with no children.
- NV4: Female, aged 32 years old, studying full-time at university for a PhD in politics. Already has a postgraduate university degree. Formerly worked at the United Nations.
- NV5: Female, aged 32 years old, studying full-time at university for a postgraduate degree in business studies. Originally from Greece. Has a partner but no children.
- NV6: Male, aged 27 years old, employed full-time as a science teacher. Has a postgraduate university degree in physics. Single with no children.
- NV7: Male aged 54 years old, employed full-time. Has not been to university (left school at 16). Married with a daughter.

NV8: Female, aged 23 years old, employed full-time in an office job. Has an undergraduate degree in foreign languages. Has a partner but no children.

6.3 Levels of Engagement

As previously stated, this chapter is concerned with two key matters: firstly the responses of participants towards modern art; and secondly the role field theory may play in terms of explaining the behaviour of those involved in this study and their relationship to art and museum/gallery visiting.

There have been a range of studies which propose to classify people according to their engagement with the arts, some of which have been discussed previously in Chapter 4. These range from Bourdieu and Darbel, who broke people down into 'those who buy art'; 'those who know about art'; and 'those who do not engage' (1991) through Chan and Goldthorpe's academic work on 'inactives', 'paucivores' and 'omnivores' (2007) – itself based upon Peterson (1992) – to that of Bennett et al., which included less well-defined terms such as 'confident amateurs'; 'relaxed consumers'; and 'defensive individuals' (2009).

The categories chosen to describe participant responses over the course of this chapter ('antipathy', 'opposition', 'questioning', 'negotiation' and 'dominance') have not exclusively been drawn from the literature (although some are influenced by the descriptions used by Swartz (1997)) but have been identified from the data and selected as representative and descriptive of the broad stances adopted by interviewees. They are intended not as definitive classifications but instead to mark broad positions in order to help conceptualise different ways people engage with fields.

These titles were chosen over previously discussed classification systems (see above) due to a number of factors. First of all, in terms of the cases outlined here, I found a wider range of responses than could convincingly be distributed within any one approach (e.g. the three categories outlined by Bennett et al.) and I did not feel that a combination of pre-existing approaches would result in satisfactorily distinct categories. Secondly, these pre-existing characterisations have all been defined according to their authors' own

intentions (e.g. Chan and Goldthorpe are concerned with broad cultural engagement across a range of practices/activities) and as such do not necessarily reflect the specific approach in terms of engagement with fields, demanded here.

Whilst the section headings have been broadly described as pertaining to levels of engagement, it should be noted that in many cases they refer to *attempts* to engage with an unfamiliar field. In some cases they could perhaps be better characterised as the relationship participants have with the field, rather than implying that there is engagement in all cases (this relationship/engagement is with the field of art as defined by those in power (often the galleries/institutions), which is not a conceptualisation of 'art' all participants agree with). Regarding the project as a whole, and the investigation into non-formal learning, field theory is conceptualised as a means of understanding people's behaviour (as a product of their cultural capital/habitus) in terms of museum/gallery visiting. Hypothetically the level of engagement participants exhibited relates to their ability to learn, in particular, implicitly (which is explored further in Chapter 8).

The next section, relates to a position involving a low level of engagement, in terms of responses from participants: that of antipathy. This section is the only one which, arguably, shows responses which indicate no attempt at engagement with the field of art.

6.4 Antipathy

Amongst a number of the non-visitors, there was a feeling expressed of complete antipathy towards museums and galleries, and, for many of them, towards art in general.

A general feeling of both confusion and a lack of interest pervaded the interviews with non-visitors when discussing modern/contemporary art: the female, 32 year old, full-time business student said that "it [modern art] leaves me confused, uninterested" (NV5). Indeed of the 8 non-visitors interviewed, 7 of them talked about a lack of interest as being one of the factors that stopped

them from visiting museums and galleries with 3 of those citing it as one of the most (if not *the* most) important factors.

The comments made by non-visitors to describe contemporary art (and the institutions that displayed it) were littered with words such as 'boring' and 'uninteresting':

I'm utterly disinterested ... it's boring (NV2).

For someone who is not interested in art I immediately associate the word [gallery] with boredom (NV8).

It's not for everyone; it may bore some people (NV1).

I try to avoid galleries at all costs as I don't understand art and find the experience tedious and dull (NV2).

The last of these statements, by the male, 23 year old, volunteer, shows awareness – lacking in some of the comments made by other non-visitors – that such institutions may not be for everyone but by implication also recognises that some people *do* visit and do not, we would assume, find contemporary art boring.

This feeling of 'boredom' associated with certain forms of art/visiting is not entirely restricted to the non-visitors however, the below comment is by the female, 64 year old, former IT worker from the Friends of the Laing:

I wouldn't go if I didn't ... I wouldn't go because I think it's highbrow, you know, 'there's this exhibition on, you really must go and see it', but it's boring (Laing2).

The participant describes either someone she knows recommending, or the general public perception, that a particular exhibition should be visited and explains how she herself would not be swayed by this: she would not attend a boring show just because it is seen as 'highbrow.' Whilst admitting that she does find some exhibitions boring (and the interview at this point was focused on contemporary exhibitions) she also emphasises what she perceives to be her independence; her determination not to conform for the sake of conforming if it means sacrificing enjoyment. She is mindful of the dominant positions in the field, and the dominant views regarding particular 'highbrow' exhibitions (the contemporary canon) but she does not necessarily submit to these views/opinions. It is difficult to ascertain whether these are genuinely her views or whether she is putting up a front to cover a lack of understanding and a sense of deficiency that she feels. This approach differs from the antipathy of many of the non-visitors and highlights a difference between participants, despite overlaps in language use at times.

A common response from the non-visitors was that contemporary/modern art in particular was uninteresting and boring; these participants did not understand the rules of the field/how to compete and did not interact with it. The antipathetic position adopted by a number of the 'novice' participants represents one extreme when considering people's engagement with the field of art, hence its inclusion at the start of this analysis.

This antipathy, I would suggest, is indicative of a complete lack of awareness regarding the field of art, and subsequently a lack of engagement. They expressed no knowledge of the field and its rules, which, perhaps unlike the participants in the following section, 6.5, meant they were not aware of any value or power to be gained either – hence their total lack of interest. Bourdieu suggested that:

The awareness of deprivation decreases in proportion as the deprivation increases, individuals who are most completely dispossessed of the means of appropriating works of art being the most completely dispossessed of the awareness of the disposition (Bourdieu 1993: 227).

Similarly it holds that those most deprived are also those least aware of the field itself.

6.5 **Opposition**

The non-visitors involved in this project largely fell into one of two categories. Either they viewed art, and subsequently gallery visiting, as 'boring' and had no interest in discussing it, or they were antagonistic towards (in particular) contemporary art. The second group form the basis on which this section centres; they express oppositional views – discontent with what constitutes value in the field but unable to exert this authority. This group desire to change the way value is understood and 'art' is defined within the

field, but do not have access to the positions of power which would enable them to do so.

A number of interviewees questioned what actually constituted art, for instance the female, 23 year old, office worker stated:

I think the word [art] is overused. Nowadays almost anything can be referred to as 'art' even if it requires no talent or imagination. The word almost becomes an excuse for anything which is shocking, weird or just plain stupid – if it is labelled as art it becomes suddenly acceptable in modern society (NV8).

If we assume the dominant position is one which certifies what is classed as art – the dominant powers in the field of art are those who decide what to put into the galleries, what to hold up on a pedestal – this excerpt clearly shows that this young female does not agree with this position: she disagrees with the ways that the field defines art and she cannot engage with it.

Bourdieu described a field as:

The site of a sort of well-regulated ballet in which individuals and groups dance their own steps, always contrasting themselves with each other, sometimes clashing, sometimes dancing to the same tune, then turning their backs on each other in often explosive separations, and so on (Bourdieu 1996: 113).

It is perhaps the case, in this instance, that the participant is not merely 'clashing' with the field but is turning her back on it in an 'explosive separation': suggesting she does have some involvement with the field, in contrast to the antipathetic opinions expressed in the previous section.

Another non-visitor, the male, 23 year old, volunteer, also questioned what constituted art, whilst demonstrating his own powerlessness to change this definition:

> Whenever I hear the words 'modern art' I think of that Turner Prize winner whose entry was essentially some soiled bed sheets and think, how, in any way, shape or form is that art? (NV2).

His reference to Tracy Emin's installation piece *My Bed* shows an awareness of contemporary art, although he incorrectly identified it as having

won the Turner Prize as opposed to only being nominated. His view echoes the widely expressed popular opinion (reflected, or perhaps cultivated, in the media) that seemingly anything can be called art (e.g. Collings 1999). The role of the Turner Prize could be debated over: the Director of the Tate and a member of the prize's judging panel, Nicholas Serota, described its first objective as "to make new art interesting and accessible" (quoted in Button 2007: 27) although Street suggested "its main aim was, in fact, to solve a general perceived problem of public reluctance to engage with modern art" (2005: 825). Hence in some respects the dominant forces in the art field have achieved their aims in that they have caused this particular participant to engage (albeit negatively) with modern art; although behaving in a seemingly oppositional or subversive manner, the response by the unemployed male, above, could be seen as reinforcing the relative positions of those in the field.

To return to NV8, the female, 23 year old, office worker:

I would go as far as to say modern art is a con and I don't believe it exists ... I think most things that are labelled as modern art are not 'art' at all and don't deserve anybody's time or attention (NV8).

The interviewee takes an oppositional position and in fact is quite confrontational, advancing the opinion that 'modern art is a con' and suggesting that it does not exist at all – which was a commonly held view by those who disliked this form of art in a study carried out by Halle (1993). NV8 justifies her lack of understanding, believing others to be conned due to her own inability to decode certain artworks; blaming the art/the field rather than her own perceived deficiency. She phrases her opinion in an extremely interesting way: I would suggest it is impossible to question the pure existence of 'modern art' – places like Tate Modern or BALTIC exist in a physical sense and they exhibit 'things' which are known as contemporary art. The existence of *something* which is labelled as modern/contemporary art is a reality, what this participant is questioning is the worthiness of such things to be labelled as art. However, this particular participant adopts a manner which can almost be described as aggressive, stating that modern artworks "don't deserve anybody's time or attention"; perhaps she can see that others can

decode/decipher such works and she feels resultantly inadequate. This participant has a fixed view of what art is, and anything that does not conform, in her eyes, does not constitute art at all. It could be posited that this is due to her not possessing the necessary habitus required to decipher such forms of art, although many other participants exhibited this type of behaviour without being so antagonistic toward the concept of 'modern art.' Instead, it may be the case that this participant does engage with the field, but in a subversive manner (Swartz 1997): seeing little to gain from the dominant opinion she instead positions herself in direct opposition to it.

Although the non-visitors tended to display greater distrust of 'modern art' that is not to say it was a quality exclusively harboured by them, suggesting you can be an expert in one part of the field but a novice in another (see Chapter 9); the female, 68 year old, former banker from the Laing remarked:

But it's, a lot of it to me [contemporary art], is the Emperor's New Clothes, where if somebody says, 'oh yes, this is good' and you get people going 'oh yes, so and so says it's good so it must be good' and I tend to take a more critical approach and think, well, is it? And who's going to tell me whether it is or isn't? (Laing3).

Once again we have an example of a participant echoing a popular media-led view of contemporary art: Nigel Reynolds (former arts correspondent of The Telegraph) used the phrase 'Emperor's New Clothes' himself in his 2001 piece on the Turner Prize of that year. Here, Laing3, whilst being slightly disparaging of modern art emphasises her own 'critical approach' and her self-held belief in her independence of thought. She challenges the 'accepted' version of what constitutes art and challenges those who "tell [her] whether [something] is or isn't" art.

The general view held by a number of the non-visitors was that modern/contemporary art *tried* to incorporate meaning but failed to do so convincingly:

I feel that much of it [modern art] is pretentious rubbish that tries too hard to have a deep meaning (NV3).

The crazy projections of a person on a piece of canvas who has managed to fabricate some story around it (NV6).

The word [art] almost becomes an excuse for anything which is shocking, weird or just plain stupid (NV8).

Bennett et al. put forward the view that this oppositional stance, the rejection of dominant positions within the field of art, might actually be beneficial for some people:

Understanding difficult art in any depth does not enhance one's position, and rejection of some modern art may indeed raise social position when it is accompanied by the embodied practices that actually count (Bennett et al. 2009: 114).

In other words, in certain contexts and within certain social groups, the rejection of dominant positions may confer greater capital than their acceptance.

6.6 Questioning

Amongst many of the participants involved in the study, from both ends of the perceived spectrum of novices-experts, there was often an expressed feeling of confusion or lack of understanding when it came to modern/contemporary art. Described here as a 'questioning' stance, this broad definition encapsulates positions within the field which did not necessarily oppose those of the dominant agents, but which were not outright submissive either.

The female, 66 year old, housewife from the Friends of the Shipley, wife of the couple interviewed, described a particular visit:

Some of the modern stuff in there [mima, a contemporary gallery in Middlesbrough], I mean there was one exhibit and it just had panels of wood against the wall and some had black lines on, and some didn't, and that was supposed to be art work (Shipley3).

She expresses the opinion that what was displayed was 'supposed to be art', but implicitly countered this with her own perception that it wasn't: what is accepted in the art community, in the field of art, as an artwork (or rather what they deem to be an artwork (Becker 1982)) does not conform to what this participant (and a number of others) believe to actually *be* art. Defining what art is allows participants to disregard that which they do not feel able to decode; it represents an engagement with the field which is limited by individuals' habitus (the embodiment of their cultural capital). The position is perhaps most akin to that of 'succession' (Swartz 1997): an attempt to gain access to the dominant groups within the field. However, although the participant suggested that she could not see the value in what she described as 'modern art', she did not doubt that it nonetheless had worth: "If you're into modern art it's probably very, very good" (Shipley3).

Meanwhile, the female, 23 year old, office worker, who described herself as a non-visitor, stated that:

I believe that the word should be used for something which is produced from real talent or effort and creativity, but that's not always the case (NV8).

She defined art as that which is produced from "real talent", "effort" or "creativity" above all else. In fact she did not show confusion over what art is but instead delineated what can (and cannot) be called art through the effort that goes into its production. This aligns with the view held by a number of participants in the Fivearts Cities research project (Newman et al. 2012), adhering to "the conventional notions of artistic value ... e.g. identifying the importance of artists' representational abilities (mimetic theory), and the time and effort expended upon work" (Newman & Whitehead 2006: 23).

The male, 27 year old, science teacher who was interviewed commented that:

Modern art is all hit and miss, some of it I just don't get and see nothing more than the crazy projections of a person on to a piece of canvas who has managed to fabricate some story around it about how they were feeling at the time, and their feelings are projected onto the canvas (NV6).

Similarly to the quotation from NV8 above, this response seems to indicate that one of the 'problems' with modern art is that not enough effort has gone into its production. He describes the story portrayed by modern artists as "fabricated" and does not place much value in the projection of "feelings" onto canvas, which he dismisses as "crazy." Newman and Whitehead

noted a similar response in the studies they carried out, hypothesising that it represented the ethical standpoint, held by participants, "that within society the development of appreciable skills (i.e. technical skills) and the investment of time and effort are things which should be rewarded" (2006: 12).

There is however a suggestion that some modern art is successful – 'hit and miss' – he can decode some but not others (or decode very little) – and he sees an advantage in pretending. He recognises that the field has value: stating "I just don't get it"; suggesting that there is something to get (to, perhaps, understand) and he feels at fault for not 'getting' it.

It is also worth noting that the question of craftsmanship was not only touched upon by the non-visitors – this a quotation from the female, 65 year old, former doctor who was a Friend of the Laing:

And, there are some things that I've seen there [BALTIC] that I do not understand at all, but I can appreciate the craftsmanship that had gone into the design or the actual making of them. Although, you know, when they put the explanation underneath I can't make that out at all (Laing1).

Again the role of talent/effort in the production of art is raised, however here we have an instance of a participant recognising the effort and talent that had gone into the production of a modern artwork whilst admitting that she does not understand it.

The range of excerpts discussed in this sub-section do not dismiss outright (at least not in a forceful way) contemporary art, but do not show acceptance of the dominant view either. In terms of those involved, their habitus does not allow them to fully engage, but might enable them to do so with some artworks/in some contexts. Bourdieu proposed that such individuals' responses were formed as a result of their inability to apprehend certain artworks:

> Individuals possess a definite and limited capacity for apprehending the 'information' suggested by the work ... when the message exceeds the possibilities of apprehension ... [they] lose interest in what appears to them to be a medley without rhyme or reason ... in other words, when placed before a message which is too rich, or 'overwhelming', as the theory of

information expresses it, they feel completely 'out of their depth' (Bourdieu, 1993: 225).

The sense of feeling 'overwhelmed' or 'out of their depth' was reflected by some of the participants who expressed a lack of understanding/a confusion regarding the meaning of artworks:

> And, there are some things that I've seen there that I do not understand at all ... when they put the explanation underneath I can't make that out at all (Laing1).

> I can go to the BALTIC and I can absolutely loathe and detest everything I see, which is probably because I don't, well, I don't understand it (Laing2).

> But to do the interpreting yourself, you need a big knowledge base (Shipley4).

These interviewees did not feel like they were able to understand certain art forms. Although the gallery Friends found modern art "confusing" (Laing2) or "intimidating" (Laing3) they nonetheless still engaged with it and endeavoured to make visits to galleries/museums despite not feeling like they could "appreciate" it (Laing4).

The role within the field of art for those loosely described here as adopting a 'questioning' stance towards modern/contemporary art is perhaps one of the most difficult to characterise. They neither stand in direct opposition nor completely cede to the views expressed by those who hold the power. Instead, as the subtitle of this section suggests, they question such views and often adopt an ill-at-ease feeling related to an inability to decipher artworks (although they do want to improve their field positions and are drawn into the competitive aspects of the field).

6.7 Negotiation

This section encapsulates a way of thinking derived from a comment made by the very first interviewee involved in the project, the female, 65 year old, former doctor and member of the Friends of the Laing who said, when discussing visits she made to art galleries: And, you know, I like looking at art, I mean I don't say I'm all that knowledgeable about it, I mean, I know what I like, you know (Laing1).

The sentiment she expressed was repeated by a number of other participants, who all expressed, outwardly, confidence in the fact that they knew what they liked (and didn't like) with regards art, and in particular, modern or contemporary art. This position, I would suggest, reflects a sense of negotiation between participants and the field: recognising the fact they see value in competing but acknowledging that often they do not possess the means to decode certain artworks.

The assertion, that participants knew what they liked, was often used in order to explain their views on contemporary art, as another member of the Friends of the Laing put it:

Yeah, I know what I like, yes ... it depends what's on, I don't always appreciate the exhibitions. I try to, but there's some of them, you know, that just aren't for me (Laing4).

An inability to understand, to decipher (Bourdieu 1993) or to decode (Hall 1980), certain types of art (described by this participant as an inability to "appreciate") is recognised but is passed off as being the result of certain artworks simply not 'being for her'. Yet, there is a sense that she does aspire to be able to appreciate "what's on" (in this case at the BALTIC in Gateshead, a contemporary art gallery) through her use of the phrase "I try to." This tension between an acknowledgement of a deficiency, as they understood it, and a desire to appear content with one's own tastes was only really present in the interviews with a number of the 'experts' – those participants who were members of Friends groups. The male, 66 year old, former engineer and lecturer from the Shipley Friends group said (of him and his wife):

The problem with it, it's not our scene ... it's not my scene particularly ... I'm not terribly interested in modern art, which I find somewhat pretentious at times, it's not our scene – it's too modern for us (Shipley2).

Here, in contrast to the two members of the Laing group discussed above, the interviewee directly confronts the fact that he is not interested in modern art, describing it as "not our scene." Ironically the types of art that are 'his scene' (at other times he talks about an interest in impressionism for example) were often seen as incomprehensible in their day (e.g. Denvir 1990). Contemporary art does not conform to his personal taste because it is what he describes as "too modern."

All three of the interviewees previously described talked about the fact that they visited contemporary art galleries and yet all three described difficulties they had appreciating or enjoying what was exhibited; either directly saying that it wasn't for them or indirectly dismissing it by not including it in what they knew they *did* like. This leads one to question why these individuals still visited institutions that displayed such art. It is perhaps the case that the dynamics of the field – drawing one in implicitly – meant that these people were competing for position even if they were not consciously aware of it. Visiting contemporary galleries represents a source of power whether it affirms your beliefs or challenges them.

One participant more openly confronted the issue of contemporary art and how she reacted/responded to it:

> And I don't identify myself readily with that type of art [contemporary], it does nothing for me, it doesn't have a, it's a big generalisation that. But in general, if I go in there [a contemporary gallery], I want to be surprised, or I want to be excited, or I want to come away inspired and I seldom do, and that's probably a lot to do with my mind-set because it isn't art that I grasp readily and I haven't studied it sufficiently to know what contemporary artists are getting at (Laing3).

Unlike many of the other participants in the research, this interviewee acknowledged that she didn't 'grasp' contemporary art readily and that she was unable to ascertain what contemporary artists were 'getting at.' She recognised her inability to decode the messages of a contemporary gallery and attributed this to her mind-set and her lack of education on the subject.

The role cultural capital plays in terms of a person's ability to decode artworks has been discussed at length (e.g. Newman 2005), however for the majority of those interviewed from the Friends groups it may have been beneficial for them, in relation to the fields of art and/or leisure, not to openly admit a deficiency in terms of their habitus when it came to contemporary art. Instead they dismissed contemporary art, stating "I know what I like" and implying that modern art *isn't it*. Alternatively, as discussed earlier, "rejection of some modern art" may have actually raised their 'social position' (Bennett et al. 2009: 114).

I would suggest that the statement "I know what I like" is indicative of a defensive position on the part of these participants: dismissing what they do not understand without having to justify it beyond their own tastes. This response (or a variant on it, e.g. the comment from Shipley2 above) was often given when asked what they thought about contemporary galleries (like the BALTIC or mima in Middlesbrough) that they did/had visit(ed).

The concept of 'knowing what they like' potentially reflects the position, described by Panofsky, of the 'naïve beholder':

Thus the naïve beholder not only enjoys but also, unconsciously, appraises and interprets the work of art; and no one can blame him if he does this without caring whether his appraisal and interpretation are right or wrong, and without realizing that his own cultural equipment, such as it is, actually contributes to the object of his experience (Panofsky 1955: 16-17).

Bourdieu went on to elaborate that this position depended solely on either the "sensible qualities of the work ... or the emotional experience that these qualities arouse in the beholder" (1984: 5). Individuals showed disdain for what the dominant agents in the field classed as art or not and instead justified themselves in terms of what they liked; their interpretations/appraisals may or may not have coincided with those of the artfield hierarchy, but this did not necessarily matter to them.

Dudzinska-Przesmitzki & Grenier identified two overarching themes which affected non-formal learning: the first was "how individuals influence their own museum learning" and focused on "the intra-personal level factors, like personal agendas, motivations, prior knowledge, and attitudes, which may shape an individual's learning during a museum visit" (2008: 15). It is clearly the case that these participants, whether consciously or not, adopted personal

agendas with regards modern art and this can be seen to affect both their interaction with the field and their non-formal learning experiences in terms of museum/gallery visiting.

6.8 Dominance

One member of the gallery Friends demonstrated a much more appreciative attitude towards contemporary art than the majority of excerpts which have so far been discussed. The male, 70 year old, former museum director described "inspiration" and "spiritual enjoyment" as the key reasons he visited galleries and sought "new art" (Shipley1). The language used by this participant (including the use of technical terms and, indeed, the word 'contemporary' as opposed to 'modern' when referring to recent/current artworks) was indicative of a level of habitus/cultural capital that allowed him to interact fully with the field (Ball et al. 2002). Indeed in this instance the interviewee's former job would confirm that he did possess a large degree of context-relevant cultural capital. In this case the participant pursues an essentially 'conservationist' strategy in the field (Swartz 1997), possibly indicative of a position of dominance, although this is not necessarily clear.

Generally positions of dominance were not expressed by those interviewed in this study: this can largely be attributed to the relatively privileged nature of such positions and subsequently the relatively scarce nature of such individuals.

6.9 **Discussion**

Across the participants interviewed as part of this study there were a number of varying opinions expressed regards modern/contemporary art which have contributed to the broad delineation of positions within the field of art suggested in this chapter.

Those people interviewed who described themselves as non-visitors largely fell into one of two categories: either they showed a complete lack of interest in art or they had relatively strong, oppositional views. The first group did not visit galleries because they had no desire to; described art in terms that emphasised their 'boredom' and disinterest; and were largely characterised by

their indifference. These people were completely dispossessed of an understanding of much contemporary art and as a result were dispossessed of an awareness of the field itself (Bourdieu 1993).

Meanwhile, the second group had forceful opinions that could be described as subversive, suggesting that they did interact with the field of art (as defined by the gallery), but did so in order to attempt to destabilise/challenge dominant positions. Bourdieu maintained that "only a few have the real possibility of benefitting from the theoretical possibility, generously offered to all, of taking advantage of the works exhibited in museums" and that museums' true function was to "strengthen the feeling of belonging in some and the feeling of exclusion in others" (1993: 224-5).

In terms of those people interviewed who belonged to gallery Friends groups, the majority of those interviewed found contemporary art confusing and difficult to understand; however, on the whole they continued to visit contemporary galleries. This would suggest that those participants who did not possess the necessary habitus or cultural capital to understand the dominant positions within the field nonetheless still made an effort to "gain access" – a form of 'succession' behaviour (Swartz 1997).

It should be noted that those interviewed as part of the Friends groups were all of a certain age and could all be characterised as belonging to the 'third age' (Lashlett 1991), which is not necessarily to say they were all members of a particular birth cohort, but instead are part of a particular cultural field (Gilleard & Higgs 2009: 35). These participants generally shared a certain lifestyle which Gilleard and Higgs designated as characteristic of this 'third age' and as such one can consider the behaviour of these participants in terms of this cultural field, as opposed to/in contrast to the field of art. For many this lifestyle could be described as the so-called 'busy ethic': the importance of keeping busy for those in retirement (Ekerdt 1986: 239).

In addition to the Friends, the non-visitors emphasised the social side to their leisure pursuits and often mentioned social aspects when discussing what was important for them:

Something I can do with friends and something that everyone will enjoy (NV1).

The most important thing in a leisure activity would be the communal experience (NV2).

It's the people you meet (NV6).

For the non-visitors visiting galleries and museums, as well as being of no interest, clearly did not fulfil their expectations of engagement with other people/friends.

There was evidence from the interviews that all the participants did engage in a variety of leisure pursuits, including going to the theatre, concerts or the cinema; eating/drinking out; going on day trips to a variety of places; shopping; and undertaking sport/exercise. Every participant involved spoke about (or responded positively when asked about) other leisure pursuits aside from museum/gallery visiting.

In terms of this alternative cultural field then, what is at stake and why would these two groups behave differently? As museum/gallery visiting is only one of many activities on offer to participants, the role it plays is not necessarily central. However, for many of the members of Friends groups it did play a hugely important one, whilst they all talked about other leisure pursuits, they nonetheless invested significant amounts of time and effort (and, also, money) in activities related to gallery visiting/associated with being in a gallery Friends group.

This issue of behaviour is bound up with the project's overarching interest, that of non-formal learning. I have previously discussed the links that can be drawn between this and concepts such as cultural capital; the connections that can be made between this form of learning, people's behaviour and what factors influence this behaviour (of which cultural capital and field theory are two). Participants' varying degrees of capital, or rather, habitus, allowed them to either interact with, or caused them to reject, the field of art, as Grenfell and Hardy noted:

The crux of any individual's position (and his or her subsequent choices about position taking) within a particular field is the

quantity and form of any capital (social, economic, and cultural) accrued by that individual (Grenfell & Hardy 2003: 23).

However the vast majority of participants were nonetheless unable to decode and understand modern/contemporary art. Those members of the Friends groups who struggled with modern art indulged in a great deal of visiting contemporary galleries, which, as I have hypothesised was perhaps down to a desire to gain access to dominant positions within the field of art. However, this behaviour could be interpreted differently; visiting contemporary galleries is one leisure activity that would have had more status than, say, visiting the cinema amongst certain people.

For the Friends of museums/galleries, being in such an organisation was a social activity as much as anything else ("it's a social thing as well as the art" (Laing2)) and there may have been a self-reinforcing feeling amongst these Friends that visiting galleries was the 'done' thing in order to participate in this social scene. In contrast, it could be suggested that, in order to reject modern art (potentially further increasing social standing in some groups (Bennett et al. 2009)) one has to experience such art: "you can't criticise it unless you've seen it" (Shipley3).

Field theory is only useful insofar as a means to understand and interpret the behaviour of people. Over the course of this study interviews with a variety of participants have involved discussions of modern and contemporary art and it is in light of these that this chapter has focused on the field of art and how people interact with this field. When considering nonformal learning in museums and galleries, the behaviour of people in relation to the art field more widely has been posited as one route towards an understanding of how and why people behave in the way that they do.

This chapter focused on participants' interaction with fields and in particular their interaction with the art field and their relationships with modern/contemporary art. Varying levels of engagement were proposed, each involving different positions within the field. Although these differing positions have been labelled here, there are not fixed boundaries and instead the

concept should be thought of as a continuum, a myriad of positions which have, for ease of understanding, been consolidated into broad categories.

In terms of the overall project, and the investigation into non-formal learning, this chapter should be seen as a precursor to the following discussions and the links that will be further drawn between participant responses and learning. I have outlined the ways in which engagement with fields may be useful when attempting to understand people's behaviour and the relationship between fields and the other associated Bourdieusian concepts of cultural capital and habitus. The next chapter, Chapter 7, will explore the role memory plays when individuals undertake learning. Meanwhile Chapter 8 will build upon the discussion regarding understanding how people might learn implicitly and what role their level of engagement plays in that.

Chapter 4 expressed an interest in monitoring how people changed in terms of their non-formal learning, in relation to skill acquisition and cultural capital (the dual model); Chapter 9 will explore this in greater detail.

It should be noted that the generalisations expressed cannot be applied to groups outside of those interviewed in their most raw format, but instead the differences in the two groups identified here serve as examples of the possibilities of behaviour available (Peräkylä 2004). The hypotheses expressed are indicative of how people *can* behave, not necessarily how they *do* behave.

Chapter 7 – Discussion: Memory

7.1 Introduction

This chapter will address psychological perspectives on memory and the relationship between this theoretical approach and the data gathered through interviews with participants. It aims to consider the role of non-formal learning, in museums/galleries, via the framework of individual (personal) memory.

The role of the memory, in terms of non-formal learning, has been explored previously and when considering the dual model, and its levels of 'expertise', it is important to consider whether or not there are inherent differences in terms of participants (and their levels on this model) in relation to the way that their memory affects their non-formal learning experiences. In particular it is suggested that the more 'advanced' a user the more likely it is they will create cognitive 'bridges' between knowledge and experiences within their long-term memories.

Memory function is, it is proposed, a key distinction between the lower/higher levels of the dual model, and it is suggested that the way that people us their memories changes depending on their position on the model. Eraut (2000) and Hovarth et al. (1996)'s models of implicit learning showed how the semantic and episodic components of memory worked in relation to implicit learning (which, as will be shown in Chapter 8, is a critical facet in terms of the intuitive mode of behaviour which is partly evidenced through progression on the dual model).

The chapter is divided into three overarching sections, the first of which (7.2) focuses on reminiscence and nostalgia: the way people remember and reconnect museum experiences with prior experiences and memories. The second section (7.3) is concerned with forgetting and participants' metamemory (their awareness of their own memories and how they remember/forget events and knowledge); this section will explore issues of participants' inability to recall information and the failure of their memory, as well as the implications this may have in terms of non-formal learning. The third key section of this chapter (7.4) represents a broader discussion of the

memory and the role it plays in visitors' non-formal learning experiences. The chapter ends with a cumulative discussion of all these facets of memory and their relationship to non-formal learning.

7.2 Reminiscence and Nostalgia

One of the most common, explicit, examples of memory expressed by participants during the interview phase of this project, concerned feelings of either reminiscence or nostalgia. This is of particular interest because it helps shed light on past experiences as well as exemplifying one of the ways people engaged with museum/gallery displays contemporaneously.

This section will focus on people's memories of the past; in an idealised form (in the case of nostalgic recollections) as well as memories which are related to issues of self-image and, particularly, emotional states. Reminiscence can be defined through its likeness to 'life review', defined by Butler as:

> A naturally occurring, universal mental process characterized by the progressive return to consciousness of past experience, and particularly, the resurgence of unresolved conflicts; simultaneously, and normally, these revived experiences and conflicts can be surveyed and reintegrated (Butler 1963: 66).

Butler notes that reminiscence, whilst a universal process, is nonetheless more common amongst older people. Nostalgia, meanwhile, refers to reminiscence which involves a longing for the past.

The connections between memory and learning, within the museum environment, are well grounded in literature: Leinhardt and Knutson cite an example of visitors discussing personal histories:

> The content of the show provides a spark for a memory that one visitor shares with the other. Clearly there is learning going on here, but in this case, the learning that takes place focuses less on the exhibition content and more on visitors' background interests and histories (Leinhardt & Knutson 2004: 16).

The role of museum displays and exhibits, and their ability to 'jog' a memory or stir a particular reminiscence in a visitor, is a key one according to these authors, who suggested that "these personal moments, we feel, are just as important to the value of a museum experience as learning about the

content of the exhibition per se" (ibid.). The female, 64 year old, former IT worker who was a member of the Laing Friends group described one of the things she particularly liked about visiting museums:

It's stuff from the past, you can see things that were in your own home when you were younger, like, go to Beamish [an open-air museum], you know, you can see, my grandma had one of those (Laing2).

Goulding's research suggested that nostalgia was evoked "quite strongly in some, but not at all in others" (1999: 655) which was evidenced partly in this research: a number of participants noted personal connections when they recounted museum/gallery visits, whilst others did not mention such experiences. Goulding highlighted this nostalgic experience as one of the key ways that visitors "constructed meaning, and interacted with the resource according to their own expectations, not necessarily that of the museum professional" (ibid.: 665); drawing contrasts with Hewison who was critical of the role played by nostalgia and who suggested that it was evidence of museum visitors being manipulated (1987).

The female, 64 year old, former IT worker went on to say:

Because you're seeing things that you know, you know as a child. Tin bath hanging on the wall, 'ah, I sat in a tin bath when I was little', the netty [Geordie dialect for toilet], all that sort of, the nostalgia, the nostalgia trip on that one, yeah definitely (Laing2).

She openly acknowledges the 'nostalgia trip' which she experienced, that was sparked by seeing relatively mundane objects (a toilet and a tin bath in this case), but which reminded her of her childhood. The interviewee expressed genuine emotion when recounting this visit, laughing out loud at various points.

Lisus and Ericson suggested that visitors to museums/galleries strongly desired the nostalgic effects of visiting:

However, because they experienced this 'real world' in their everyday lives at home, work, school and the shopping mall, they came to the museum for a different experience, the experience of 'real art.' They wanted the museum to be a nostalgia factory, a respite from the everyday world, an opportunity to take in a simpler space that would remind them of their social place (Lisus & Ericson 1999: 212).

As well as being reminded of their "social place," reconnecting with past experiences through museum visiting can also help define a sense of self: eliciting and creating autobiographical memories, "personal episodic memories abstracted from our experience" (Whitman 2011: 266).

The female, 68 year old, former banker recalled early memories of visiting galleries:

But they would be my first memories of going to a gallery, not so much coming to the Laing as a child, but as a teenager coming to the Laing, because it was 'the thing' to be arty and you would come in for a coffee which was a very bold thing to do, and again, not so much interested in the art itself, but it being a meeting place, and I guess a safe place to come as well (Laing3).

For her, this autobiographical memory emphasises an early personal connection that she felt with the Laing gallery which – coupled with the fact that she describes the institution as "a safe place" – we can assume played a role in her later involvement with the Laing. Fitzgerald and Lawrence expounded the idea that the teenage years are particularly memorable (their research showed an increase of recalled memories from the ages of 10 to 30, which they labelled the 'reminiscence bump') due to the establishment of a social identity during this period (1984).

Whilst nostalgic memories often focus on idealised versions of the past, some participants did remember relatively 'negative' memories associated with their museum/gallery visiting experiences. The female, 65 year old, former doctor from the Laing stated:

> When I was in school we didn't get the opportunities I see here, you know, primary school children come in and they spend the day, my own grandchildren have been here and, they've had wonderful times. And they're being introduced to art. I mean we didn't, I mean it was only on high days and holidays that we even went to a big centre where perhaps there was a museum, you know (Laing1).

The former part of which was a memory/feeling also expressed by the female, 68 year old, former banker:

[It was] an era where unless you were artistically talented you weren't encouraged to do any art, there was a feeling you know, if you were good you were encouraged, and if you weren't ... well that was tough, you could do something else. Which I gather is not the case nowadays (Laing3).

Both interviewees reflected on their childhoods/youth in negative terms in comparison to the present; although their memories are moderated by what they perceive/know to be the current approach to the arts and to museum/gallery visiting. Other participants also re-visited experiences and explored change during the course of the interviews: the female, 64 year old, former IT worker said:

> So they're the ones [a list of museums/galleries] I normally take her to, but, my son, although when he was younger used to moan because we took them places, he takes her to the Hancock, Great North Museum, and the, Beamish, and they go all over (Laing2).

Going on to state that "I never used to go to art galleries when I was younger," which echoes the responses of participants above. Interestingly across this, admittedly small, sample the interviewees who belonged to Friends groups (the 'expert' users) proffered mixed responses regarding their visiting habits as children, which was mirrored by the non-users. Some of these nonvisitors, such as the male, 23 year old, volunteer, stated that "for as long as I can remember" (NV2) he had not actively visited museums and galleries, whilst others, such as the female, 21 year old, part-time worker, "used to go [on museum visits] more when I was younger and I spent a lot of time in London" (NV1).

Regarding individual museum/gallery visits themselves, there is some evidence that museums can provide an ideal context for cued recall of specific memories. As Smith and Kosslyn pointed out, "retrieval is cue dependent, that is, it is stimulated by hints and clues from the external and the internal environment" (2007: 217): when the current milieu provides 'retrieval cues' recall is likely to be greater (Wagenaar 1986). Hence, one of the reasons people

visit may be because museums and gallery spaces are able to provide such cues which help people to remember particularly salient, pleasant or emotional memories (ibid.). To return to the quotation by the female, 64 year old, former IT worker, who reminisced about her childhood on seeing a tin bath hanging up (Laing2, see above), the objects themselves (the bath and the 'netty' [toilet]) were cues which evoked these former memories (cues can take a range of forms, from location, to objects, and even sounds and smells (Goldstein 2008: 216)). Rowles addressed the issue through his work with an Appalachian community, highlighting the presence of "incident places": places imbued with meaning for the residents because of their experiences there, which, when visited, stirred up a whole range of memories and recollections (1983: 303).

Ashcraft and Radvansky explain this phenomenon through the concept of 'encoding specificity', which they define as the encoding of information not as a set of isolated items, but instead as a more holistic memory representation, with a range of associated cues and contexts (2010: 207). Hence the encountering of one associated cue can recall the whole memory.

When referring to the memories people have I have generally taken these to be relatively accurate recollections, which can be used to help understand what a person has done, however it should be noted that there is evidence that people do not necessarily remember correctly all the time and do have a propensity for what Rowles refers to as a 'grand fiction' (1983). His research was based upon people's recollections of the town in which they grew up in, and when compared with verifiable historical data, he showed that people often remembered the town of their youth in an unrealistic, overwhelmingly positive light. Whilst memories are constructed in the minds of individuals (and not exact replicas or versions of events) an inability to test the veracity of the responses by interviewees means that this research must rely on them in terms of its interpretation. A critical point to make is that what a participant remembers, whether real or not, still holds meaning: showing what is important/pertinent to them and showing how they frame a particular event/experience.

As well as experiencing nostalgic feelings when visiting museums and galleries, participants also expressed such emotions through the interview process, when reminiscing about past visits, and in particular relating to their childhood.

The female, 68 year old, former banker noted that:

As a child and a teenager I had a general interest in art, having been brought up locally as a child, your first memories of a museum or gallery are going to Hancock, when it was in its dusty splendour and all these horrendous animals (Laing3).

Whilst the female, 63 year old, former sales assistant described a very similar experience:

I'm thinking back to when I was a child, taken by my grandfather, you know, when I was very little. It was very much of a, things in wooden cases, but you know, I was a sort of boring, geeky child that just loved, looking in, you know, boring wooden cabinets (Laing4).

In both cases the participants described their childhood memories of museums, and in both cases referenced similar institutions, or rather, similar features of institutions: the 'dusty splendour' of museums with 'wooden cases,' 'cabinets,' and 'horrendous animals'. Both interviewees evoked a childhood spent visiting traditional museums in the style of the 'cabinet of curiosities' that characterised institutions such as the Victoria and Albert Museum for much of their existence (see Dunn & Burton 1997). And yet, despite using adjectives often associated with negative connotations ('boring,' 'horrendous,' and 'dusty') they both, nonetheless, summarised these experiences positively ('splendour' and 'loved'). As Ashcraft and Radvansky noted, people tend to remember "emotional information better than neutral information" (2010:206), and in both these instances the salient memories related are rich in their emotional content (both pleasant and unpleasant).

In contrast to the act of visiting in order to experience such nostalgic emotions, some participants took steps to utilise this phenomenon (albeit subconsciously) outside of their physical visit. The female, 65 year old, former doctor from the Laing talked about collecting postcards after each visit she

made, and when asked whether this was in order for her to 're-visit' these experiences she was effusive in her affirmation.

There is a sense that nostalgia, as well as serving an autobiographical role, can also help visitors teach others: the social aspect of non-formal learning experiences. This was explored by Fienberg and Leinhardt, who observed museum/gallery visitors conversations, and who found that nostalgic reflection can enable people to bring to bear their own knowledge, which can in turn help others to learn (2002). The female, 64 year old, former IT worker, when discussing seeing things that reminded her of her childhood also talked about visiting with her family, in particular her grandchildren. Whilst the reference to seeing a 'tin bath' had personal connotations she also expressed the way that this helped her to pique the interest of those she was visiting with. The "nostalgia trip" she experienced (Laing2) was not purely a selfish one, but also enabled her to help her relatives learn about the past.

A broad and diverse area, exploring people's reminiscences and nostalgic reactions to museum and gallery visiting has opened up a number of potential research paths, which this section attempted to explore, at least formatively. Research of a psychological persuasion helps one to understand better how these non-formal learning experiences can be characterised, as well as explaining why people behave in the ways that they do, and, perhaps, explaining some of the motivational aspects of visiting.

7.3 Forgetting

A prevalent trend throughout the interview phase of the research concerned participants forgetting or struggling to remember certain aspects of their experiences. Indeed, in terms of their meta-memory, forgetting was the most common instance of people's awareness of their own memory.

Studying the phenomenon of 'forgetting' may not seem intuitively the best way to study learning experiences within the gallery, but in reality it does help one understand some of the processes taking place, and by focusing on why people *don't* remember certain things it may be possible to begin to understand the variety of ways that learning *does* take place. Forgetting can

manifest itself in a range of ways and can occur as a result of a myriad of potential causes which are outlined in Figure 29, below. Of particular note is the number of potentially affective factors spread across the three broader aspects of memory. It is by studying forgetting that we can begin to see that when something *is* remembered it may be the result of an incredibly complex series of events.

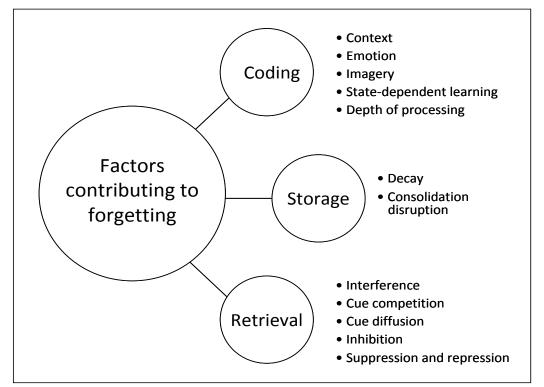


Figure 29: Factors contributing to forgetting (adapted from Whitman 2011: 234).

Whilst there are a range of reasons listed in Figure 29 which are possible explanations for the forgetting of certain information or events I will only focus on those which might potentially be used to analyse/discuss excerpts from the interviews with both regular and non-visitors.

To address one of the earliest possible causes, chronologically, problems or failures at the 'coding' stage of the memory are identifiable throughout interviews with both groups of participants. The female, 63 year old, former sales assistant, said of gallery exhibitions that "I think you just tend to forget the disappointing ones, yes" (Laing4). Similarly, the male, 23 year old, volunteer, who described himself as a non-visitor generally, explained his lack of memory of a visit that he had made by stating that "I didn't really pay much attention to be honest" (NV2).

In both of these cases the interviewee was unmotivated to learn in the first place, whether through lack of interest or disappointment at the perceived quality of an exhibition. As Daselaar et al. explained, the memory failures are not actually as a result of forgetting something previously known, but are as a result of a failure to encode information in the first place (2009). There is a contrast to be drawn between participants who don't "remember much about" (NV1) a museum visit because they are not interested and those that do not encode information for other reasons. For instance, the female, 64 year old, former IT worker from the Laing said, when describing a particular visit:

Don't ask me who any of them were by, I can't remember the names of artists! (Laing2).

Although there are a number of other potential explanations, it is possible that a perceived inability to remember artist names has led to this interviewee adopting the stance that it is pointless trying to remember artist names. Passer and Smith noted that "much of what we sense simply is not processed deeply enough to commit to memory" (2011: 272), hence just a cursory glance at artist names is unlikely to be enough to result in the creation of a strong/deep memory.

In terms of forgetting as a result of issues related to the storage of memories, one of the most common theories, that of memory decay, is highly contested. Decay theory suggests that "with time and disuse, the long-term physical memory trace in the nervous system fades away," however there is some debate over whether this phenomenon exists or not (Passer & Smith 2011: 273), largely because the theory revolves around the idea that decay occurs merely as a result of the passage of time – an unsatisfactorily shallow explanation (Terry 2009: 293). As a result, it is more useful to conceive of a number of examples of forgetting, illustrated below, as a result of retrieval failure, which instead purports that memories, once created, remain (they are not lost) but are sometimes difficult to access (Ashcraft & Radvansky 2010: 214), a phenomenon particularly prevalent amongst older people (Terry 2009).

Given the ages of many of those interviewed (particularly those belonging to Friends groups) it is perhaps unsurprising that there were a number of potential instances of 'retrieval failure,' exemplified here:

There have been some ... and of course now I can't think of one to name for you, that's a senior moment (Laing 3, aged 68).

The retention process definitely gets ... even though you do things, it is harder to remember things, harder to recall things as you get older, there's no doubt about it, so do these things when you're young! (Laing 3, aged 68).

You know, there are smaller properties that are, just a house [pauses] erm, the one in, near Middlesbrough, whose name I forget [pauses] a small, small property. (Laing4, aged 63).

Although I'm trying to remember exactly what was in the show ... (Shipley1, aged 70).

It should be noted that there are some cases where memory *is* 'erased' or removed, largely associated with brain degeneration and dementia in which the physical brain itself is altered (Terry 2009: 275).

As well as simple retrieval failure, there are other explanations at the point of recall which have been proposed as a cause of forgetting, one of which is the theory of interference, defined as follows:

> [Interference] occurs by having new information encoded into memory that uses the same neural parts ... that were used by the older information. This reuse of neural networks interferes with memories for the older information, thus disrupting the consolidation process and resulting in forgetting (Ashcraft & Radvansky 2010: 210).

Examples of interference were less prevalent amongst the non-visitors, probably due to the fact that individual memories of experiences for these participants were relatively isolated, and as a result less likely to interfere with each other.

The female, 65 year old, former doctor addressed the issue directly:

No, we've been somewhere recently, because trying to ... the thing is with the Laing we seem to go to so many things you suddenly think, where was that I saw, you know, where was that? (Laing1).

The idea that "items in long-term memory, particularly similar items, might conflict with one another under some circumstances" (Whitman 2011: 234) is illustrated in Figure 30 below.

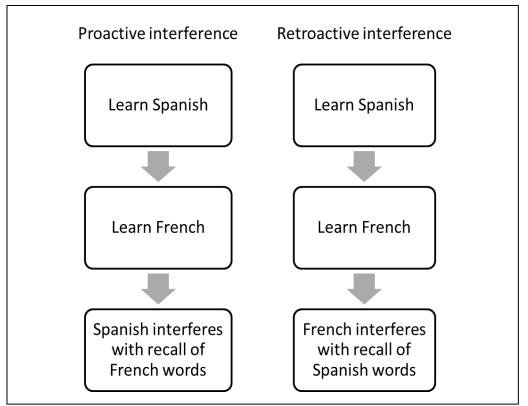


Figure 30: Proactive and Retroactive Interference (adapted from Passer & Smith 2011: 273).

Other items in our long-term memory impair our ability to retrieve that which we seek (Mayr 2009: 273) in two different ways (see Figure 30): with proactive interference, older memories interfere with the retrieval of newer ones, whilst with retroactive interference, newer memories interfere with the retrieval of older ones (Passer & Smith 2011: 273).

The following quotation represents a further possible example of interference, the female, 64 year old, former IT worker stating that:

I think the one that really stood out, and I've lost, lost the name of the artist in my head at the minute, I think it might have been Melvin, no, no I don't know, it was red poppies on a black background, and it was huge and it was just one big poppy, and it was just the colours, just sensational. But there was a few of them I really liked (Laing2).

The "few of them" (either artists or individual works of art that she liked) competed with each other, rendering it difficult for her to pick out a specific

example despite her knowledge that she liked one more than the others (it "really stood out").

This excerpt could also be interpreted slightly differently: as a 'tip-ofthe-tongue' moment. Dunlosky and Metcalfe explained such moments as being absolutely sure of a piece of knowledge (i.e. having meta-knowledge of something) without being able to recall the piece of information itself (2009: 1). They noted that such states are common and arise more frequently as we grow older (ibid.: 71).

Defined similarly to the role of interference, Whitman talks about the phenomenon of remembering as a cause of forgetting (2011: 236). Citing Michael Anderson's work (Anderson & Bjork 1994), he suggests that multiple memories might be linked to the same cue, and if that cue is experienced by an individual, these memories might all be stimulated and be in competition with one another. Anderson utilises an example in which the cue 'fruit' is linked to 'orange' and 'banana', hence upon experiencing the cue, these two types of fruit are both stimulated. Strengthening one of these links (say between 'fruit' and 'orange') subsequently makes it less likely you will recall the other ('banana') (ibid.). As Whitman puts it "If you are repeatedly in a rowing boat, repeatedly remembering one incident may impede your memory of other individual incidents" when subsequently cued by the idea of 'rowing' (2011: 236).

The male, 66 year old, former engineer and lecturer, a member of the Friends of the Shipley group, described a visit to London immediately after relating a different visit:

But when I was, when I was down in London the last time, I went to the Sargent exhibition in London ... I'm not sure, I've heard it, but I'm not sure, but Singer, he was called Singer, John, John Singer ... where was that? The V&A? (Shipley2).

In this instance the participant went to London annually to visit exhibitions and so when cued to recall one visit in particular he had difficulty, potentially because he had previously strengthened a different visit memory ("remembering one memory strengthens the association for that memory and weakens others and ... the very act of retrieval is a learning experience, so the retrieval of one memory strengthens that memory" (Whitman 2011: 236)).

The three stages of memory (encoding, storage and retrieval), previously discussed in Chapter 3, are all areas which may be ultimately responsible for the forgetting of information, although it could be conceived of as a combination of a multitude of factors in some instances. In terms of this project, some of these manifestations of forgetting were more often exemplified by participants from a particular group: the non-visitors were more likely to forget as a result of poor encoding, whilst the 'expert' visitors were more likely to suffer from 'interference.'

The next section is based upon the premise that there are two distinct types of memory that make up our long-term memory and explores how these emerged in the interview process.

7.4 Semantic and Episodic Memory

The Long-Term Memory is often divided into declarative and nondeclarative components (Smith & Kosslyn 2007). The latter of these will be touched upon in greater depth in the next chapter, this section, meanwhile, turns its attention to the former: declarative memory. "Declarative memories enable us to consciously relive past experiences (episodic memory) or to remember facts we have learned (semantic memory)" (Goldstein 2005: 206) and as such is of concern to this study of non-formal learning experiences.

In particular, participant responses will be used to explicate the relationship between these two types of memories. Briseňo-Garzón et al.'s study of visitors to an aquarium, which involved follow-up interviews that took place two to three weeks after the visit, showed that most of the memories recalled were "episodic or autobiographical, thus involving descriptions and recollections about the aquarium visit, but showing little evidence of semantic ... memories (concept-based memories that can be connected so that new knowledge can be built)" (2007: 312). The same authors explored non-formal learning experiences in the aquarium environment and suggested a range of means of characterising such experiences:

Cognitive learning experiences were characterized by gains in factual knowledge; social learning experiences involved the expansion of awareness and realization of family dynamics and individual family members' personalities; affective learning experiences were identified by strong emotional components and the internalization of emotions and values (Briseňo-Garzón et al. 2007: 313).

In terms of this study, when considering the type of memories participants recall (in terms of semantic/episodic) it is important to bear in mind the types of questions being asked; that is to say, if the interviewer asks for the recollection of a specific episodic memory (an individual and pertinent museum visit for instance), the respondent is likely to give an answer composed of episodic elements. Indeed many of the responses given by participants did conform to this pattern:

> *Interviewer:* What did you see? *Interviewee:* The Anglo-Saxon gold found in Staffordshire (NV1).

> Interviewer: Can you remember a specific museum visit? Interviewee: The Louvre ... We were in Paris and it seemed like the thing to do when in Paris. Also I think it was free for under 25-year-olds. We saw lots of paintings, although I was slightly disappointed by the Mona Lisa (NV8).

> *Interviewer:* Is there anywhere that you haven't really enjoyed? *Interviewee:* We went to mima, and there was a big pile of paper on the floor, well two piles. One said, hang on, what did it say, one said 'this is rubbish' and the other said 'this is great,' those weren't quite the words, and you just think, well (Laing2).

In all these cases (and in many more across the range of interviews conducted) participants were likely to give answers composed of episodic memories when asked to remember specific episodes or events. Of greater interest, however, are the ways that episodic and semantic memories work together, and the way that participants recall these two types of memories in conjunction. The fact that "some patients have category-specific deficits suggests that different kinds of knowledge are stored in different parts of the brain" (Eysenck & Keane 2005: 258) and specifically, that 'semantic' and 'episodic' *do* represent different memory systems (Baddeley et al. 2009: 134). As such, as the quotation from Briseňo-Garzón et al. (above) shows, different types of learning can result in different types of memories and understanding

what memories people create/recall in relation to museum visiting may help understand the entire learning process.

There are a number of examples drawn from the data which illustrate the use of either episodic memories in response to questions which might primarily have been asking for the semantic, or semantic memories when asked for episodic. These two instances will form the basis for the following two subsections.

7.4.1 Episodic Memories (Expecting Semantic)

Some of the questions asked over the course of the interviews often implied semantic responses, this sub-section deals with those occasions when an episodic answer was actually given to such questions. As an example, the female, 65 year old, former doctor, a member of the Friends of the Laing, answered the following question (which asks for a response based upon general knowledge) with a direct example:

> Interviewer: Do you visit any other sort of museums or art galleries? Interviewee: We've just come back from a nice holiday down in Windsor, where we've been to Stanley Spencer's gallery in Cookham (Laing1).

The interviewer used the phrase 'what sort of museums' in order to attempt to elicit broader, generalisable, knowledge, whilst the participant cited a specific occasion of visiting the Stanley Spencer Gallery. This example characterises the type of situation that this section is concerned with, although in this particular case the recall of an episodic memory may have been as a result of the participant interpreting the question as a request for such specific instances. Of greater interest is the excerpt, below, from the same interview:

> *Interviewer:* What words come to mind, what do you think about when I talk about museums? *Interviewee:* I suppose, brings history to life and gives you an idea of people's lives and achievements. I think, just think what a museum would mean to a, well, if you go to somewhere like the Burrell collection, I mean it's just astounding what one person can accumulate, and the various tastes that one can see (Laing1).

Here, although asked for 'words' which come to mind, and generalisable knowledge, the participant utilises an example of a particular episodic memory – visiting the Burrell collection – in order to illustrate her point. It is noticeable that these types of occurrences are largely confined to the regular visitors, the members of Friends groups, probably because these are the people involved who have experiences (and resultantly episodic memories associated with these experiences) to draw upon. Furthermore, as museum visiting was a large part of this persons' (and indeed the majority of those involved from this group) life it is not unsurprising that the word 'museum' conjures up direct examples and episodic memories.

Similarly, the female, 64 year old, former IT worker, also from the Laing, recalled individual experiences when asked for her thoughts on the word 'museum':

Interviewer: If I just say museum to you? *Interviewee:* It's stuff from the past, you can see things that were in your own home when you were younger, like, go to Beamish, you can see ... my grandma had one of those (Laing2).

Whilst I have previously discussed elements of this quotation in a different context, here one can see that in response to the generic 'museum' question the retiree, whilst including generalisable knowledge (semantic memory) also references the specific example of Beamish, seeing things that relate to her childhood (she went on to describe seeing a tin bath and the 'netty' [toilet]). Specific memories are often recalled better when they relate to specific periods of one's life; often as a result of the connections these episodic memories have with identity formation: such memories are "organised and incorporated into an overall story or view of the self and thus benefit mnemonically from all the advantages of such a schematic organisation as well as from increased spaced rehearsal" (Rubin et al. 1998: 16). In the case described above these childhood memories are clearly important and their recollection (and subsequent recall at this point) could be attributed to the fact that museum visiting is associated with such identity-relevant (and as such 'memorable') memories.

The male, 66 year old, former engineer and lecturer, a member of the Shipley Friends, was asked why he was a member of the group:

Interviewer: The Friends, what do you get out of it, what's in it for you? *Interviewee:* We went to the Yorkshire Sculpture Park, unfortunately I was poorly that day, so I couldn't walk round, but we had a look at the place, and we went to, well, we went to mima (Shipley2).

One would perhaps expect, especially given the phrasing of the question, that the answer would be composed of semantic memory, perhaps illustrated with episodic examples. However, instead, the response was a list of episodes (of which this is one illustration), of particular museum visits that he had undertaken (as part of the Friends group). For this interviewee the benefits of the Friends association were not of a generalisable nature but were instead best expressed through the museum visits. He was only a relatively recent member of the association which may have impacted upon how he viewed his participation: as a series of linked, but individual, elements rather than as a coherent whole (Baddeley et al. 2009: 111-2). A different member of the Shipley group, the female, 55 year old, pharmacist, echoed the retired engineer, giving a similar answer (even down to the location) to the same question:

Interviewer: And what's in it for you, what do you get out of visiting? Interviewee: Last year I visited the Yorkshire Sculpture Park, there was a marvellous exhibition, a lifetime's work, I think the artist was called Nash, worked in wood; it was so stimulating (Shipley4).

It could be the case that the visit to Yorkshire Sculpture Park was a particularly memorable one, possibly the most recent visit, resulting in it being the most vivid memory associated with the group in the minds of these participants.

> *Interviewer:* Would you say it's mainly galleries that interest you, rather than museums? *Interviewee:* I did go to the Klimt exhibition in the Tate in Liverpool (Shipley4).

Hovarth et al. (1996), and then later Eraut (2000), suggested that as well as being able to learn new information which directly results in semantic memories, episodic memories can, over time, develop/result in the creation of semantic memory (see Figure 14 in Chapter 3). In the case of this quotation, perhaps faced with a difficult question, the respondent turned to an example – for her it was apparent that she hadn't analysed her visiting habits in depth and as such had not necessarily created the relevant semantic memories: hence a reliance, instead, purely on episodic ones.

As the range of excerpts show, the majority of instances of episodic responses to primarily semantic questions came from the interviewees who were members of Friends groups. This is unsurprising since these subjects had (more) experiences to draw upon; experiences which were also more likely to have happened recently.

7.4.2 Semantic Memories (Expect Episodic)

In contrast to the previous section I intend, here, to explore examples of semantic responses when one would normally expect the recall of episodic memories.

These examples may be explained by a number of reasons, the first of which – and the most obvious for the non-visitors – is that simply the episodic memories either do not exist or are not particularly strong/memorable:

Interviewer: What did you see (e.g. individual exhibits or objects)? *Interviewee:* I didn't really pay much attention to be honest; I really don't find art interesting (NV2).

The non-visitor, the male, 23 year old, volunteer, is not able to provide an episodic memory relating to what he saw because, as he admits, he did not encode the experience particularly well in the first place.

Meanwhile, for a number of the regular visitors there are potentially other reasons which explain the recollection of semantic as opposed to episodic memories. Here the female, 68 year old, former banker, a member of the Laing group:

Interviewer: And you mentioned the past times you've been to the Baltic recently, have been disappointing, when? Why have they?

Interviewee: Because, contemporary art to me, personally, is almost another country, its, it's like studying another subject, like the difference between physics and chemistry. I think you have to particularly go down that road and research it and study it if you want to get anything from it. And I don't identify myself readily with that type of art, it does nothing for me, it doesn't have a, it's a big generalisation that. But in general, if I go in there, I want to be surprised, or I want to be excited, or I want to come away inspired and I seldom do, and that's probably a lot to do with my mind-set (Laing3).

The interviewer asks for specific occasions 'when' she has been to Baltic, and yet the answer is an entirely semantic account, devoid of episodic memory. This is undoubtedly at least partly down to the second part of the question (which asks 'why') but nonetheless one might expect an illustration of just which exhibitions caused this response. There is evidence that "culture filters what is remembered, and new information is unlikely to challenge people's ingrained preconceptions since it will only be retained in a form that accords with these preconceptions" (Rasmussen 2002: 120) and as such in this case the experiences of visiting the Baltic were not remembered except in terms of their contribution to her view that she does not understand contemporary art.

The same participant went on to re-emphasise this position:

Interviewer: You said you've been more disappointed recently, have there been some exhibitions as the Baltic that you haven't been disappointed with? Is there anything that stands out? *Interviewee:* In general no, I've been fairly disappointed over the last couple of years certainly. And I seriously wonder if people had to pay to go into the Baltic how long it would last (Laing3).

Again, although asked for specific examples (the question specifically asks for individual exhibitions that stand out) the response of the participant is confined to generalities – potentially (in fact, quite likely) borne out of experiences, but nonetheless neglecting to reference such examples.

In contrast, the following quotation from the female, 63 year old, former sales assistant, from the Laing, suggests that semantic responses in these situations might have a different explanation:

Interviewer: What was the last visit you went on, the most recent?

Interviewee: I like Wallington. And I always seem to have the same route, route through the woods, along by the river, up through the garden so I do a couple of circuits of the garden (Laing4).

There is no suggestion that the experiences had by this participant were of a negative nature, indeed quite the opposite seems to be the case (see the quotation below). As such the explanation proffered above does not align with this response. Instead I would suggest that, as Linton described, a series of similar experiences, built up over time, have created a general representation of the event (visiting Wallington) from which specific episodes are difficult to retrieve (1982).

Interviewer: Is there anything that stands out in the house, not exhibits necessarily, but any particular things that you saw? *Interviewee:* It's like visiting old friends, because I know the house pretty well, but there's always, you can always spot something different, some detail in the paintings in the hall, or some new object (Laing4).

Again, the same participant describes the generic act of visiting this particular place, without reliving individual experiences, or rather, without identifying these individual experiences (as suggested before, this semantic memory is likely the product of a series of similar/related episodic memories).

The transformation of episodic memories into semantic ones, related to museum/gallery visiting, does seem to be a phenomenon restricted to the advanced/regular users (those belonging to Friends groups), which is unsurprising given the fact that these participants are likely to be the ones who have episodic memories (related to museum/gallery visiting) and in particular, have the range/depth of memory which is likely to be 'translated' into the semantic (Linton 1982).

7.5 Discussion

This chapter, with its focus on the memory, explored the links that can be drawn between different memory systems; the concepts of forgetting and nostalgia; and aimed to outline an understanding of non-formal learning in the gallery through an understanding of the role played by our individual memories. The concept of nostalgia was of particular interest because, as excerpts from a number of participants showed, many visitors to museums and galleries often make use of past reflections/reminiscence in order to make sense of exhibitions, displays and objects (RCMG 2001b: 29). When dealing with nonformal learning this strategy is often widespread (11 out of 14 participants undertook some form of reminiscence in terms of their interpretation of artworks in the aforementioned study (ibid.)) and this was the case in this study too, amongst the regular visitors (the members of Friends groups). The nonvisitors were much less likely to reference examples of nostalgia that were evoked through museum visiting – often because they had few examples of visiting to draw upon at all, and the recollections they did have were relatively sparse and were often visits they had undertaken some time ago.

As Lisus and Ericson pointed out, not only was nostalgia a means for people to make sense of their visit, but it also provided a motivation to visit in the first place: the desire for the "nostalgia factory" (1999: 212). This partly ties in to the sense that visiting, and reminiscing, takes on an autobiographical role for some visitors: contributing to their sense of self and helping them to form their own identities. The non-formal learning experience is about more than what can be confined to time spent within an institution but relates more broadly to a person's life (there is a wide range of evidence suggesting that people often relate museum experiences to other aspects of their life after visiting (e.g. Medved & Oatley 2000, Stevenson 1991)).

In terms of deficiencies in memory, described in this chapter as 'forgetting', the main reason for the inclusion of such instances – and the associated analyses – relates to the ability to potentially understand how people's memories work by studying occasions when it doesn't. Cognitive psychologists' understanding of the brain has been vastly furthered through the study of patients with brain damage (e.g. Eysenck & Keane 2005, Sacks 1985) which, although an extreme example, does highlight the benefits to such an approach.

Whilst I discussed a range of factors that potentially contribute to forgetting (Whitman 2011: 234) and used these theories in order to explain individual responses from participants, holistically it is interesting to compare the regular visitors and the non-visitors and, rather than centre on individual theories, to focus on forgetting at different stages of the memory process. As outlined in the conclusion to Section 7.3, generally the expert/regular visitors (members of Friends groups) memory lapses could be attributed to issues of recall, whilst in contrast the non-users were more likely to forget as a result of deficiencies in the encoding phase.

The challenge, particularly for museums/galleries, is to utilise information regarding how people learn non-formally, and things that stand in their way when it comes to recalling that learning (whether that be due to encoding, storage or retrieval factors) in order to better cater for their visitors (and their potential visitors). If we consider the non-formal learning experience an all-encompassing one – taking a broad approach – this includes focusing on what they can do in terms of memory consolidation as well as ensuring that a wide range of users are enabled, and are not inhibited, when it comes to the encoding phase of memory.

The differences in operation of individuals' memory systems – and in particular the differences that were apparent when comparing more advanced users of museums/galleries with those classified as non-visitors – suggests that further characteristics, not yet present in the dual model, might include more explicit reference to the memory. Specifically, the likelihood of those occupying higher levels on the model forgetting as a result of retrieval failure (and in comparison those lower on the model forgetting as a result of encoding failure) could be incorporated into future incarnations of the model. It is clear that the evidence gathered as part of this project showed that there were difference sin memory (particularly regarding how participants used their memories to encode/store/retrieve aspects of museum visiting) across the differing levels of the dual model. Whilst the relevance of memory has not been explicitly incorporated into the original version of the dual model, this may be a key area for inclusion in terms of its future development.

The final section of this chapter turned its attention towards the declarative memory: breaking this down into semantic and episodic components and attempting to assess whether the two memory systems could be seen working together/separately through participant responses (and to evaluate whether this helped understand non-formal learning in context).

It should be noted that when dealing, specifically, with episodic memories, and how people remember experiences, the regular users had a much larger range of relevant (i.e. museum/gallery based) experiences to draw upon, which inevitably affected how the two groups of participants answered questions. The two sub-sections in this chapter attempted to identify unusual responses in terms of their semantic/episodic qualities in order to propose potential ways that people's memory systems might work depending on their visiting habits. In particular it was apparent that the process of creating semantic memory out of episodic memories (Hovarth et al. 1996) was largely restricted (insofar as the interviewees' responses were concerned) to the 'expert' visitors. I would suggest that this is as a result of the range of memories available to the two types of participant and the fact that this development of semantic memory is often as a result of regularly/repeatedly engaging in relevant experiences (Linton 1982).

The differences between the two groups of participants in the research will be explored in much greater detail in Chapter 9, whilst the following chapter (8) focuses on learning, particularly from a psychological viewpoint. It will address deliberative, reactive and implicit learning (the key tenets from Eraut's typology of non-formal learning (2000)) and the ways one might go about identifying instances of these forms of learning through interviewee responses.

Chapter 8 – Discussion: Learning

8.1 Introduction

This discussion chapter moves away from the construct of memory specifically and instead engages with 'learning' itself, in relation to the museum/gallery environment/experience. It explores participant responses in order to exemplify Eraut's typology of non-formal learning, which broke the concept down into 'deliberative', 'reactive', and 'implicit' forms (2000). By drawing on responses from participant interviews it will aim to show that all three forms of learning are identifiable in the museum/gallery and it will discuss how this might help one to conceptualise and understand non-formal learning better, in context.

As the founding typology on which the approach to non-formal learning, explored in this thesis, was based, this analysis of Eraut is clearly a key aspect to the project. In particular Eraut's original exploration of non-formal learning introduced the Dreyfus model of skill acquisition and the concept of intuition as being integral to the undertaking of implicit learning (2000). The dual model, which is, partly, premised on the increased sense of intuition that participants are able to rely on (and unconsciously do so) is therefore predicated on the distinctions between implicit and explicit learning – hence the importance of a discussion which addresses whether or not Eraut's typology can be evidenced through the research carried out as part of this project.

Investigating the role of intuition (and by extension implicit learning) within the higher levels of the dual model might help justify the original Dreyfus and Dreyfus position that higher levels of skill acquisition were characterised by intuitive modes of behaviour (1986).

The chapter is divided into individual discussions of explicit and implicit learning. Section 8.2 deals with the explicit components of Eraut's typology: with sub-sections each focusing on deliberative and reactive learning. There are then two smaller sections which deal, in turn, with meta-knowledge and lack of knowledge (8.3 and 8.4), which are followed by section 8.5; concerned with

implicit learning. The chapter ends with a broad discussion of learning in more general terms (8.6).

8.2 Explicit Learning

Deliberately based upon Eraut's typology of non-formal learning, this section breaks explicit learning down into two of the components that he discussed: deliberative learning and reactive learning (2000). It will return to the theoretical aspects of these two terms, identifying examples drawn from the interview data with participants in order to illustrate and evidence this theory in reality. Given that Eraut characterised non-formal learning as taking one of three forms (the two mentioned above and implicit learning) it is useful to examine how visitors learn, in their own words, and whether there is evidence that a non-formal learning experience does inevitably fall into one (or two/three) of these categories.

8.2.1 Deliberative Learning

In summarising the scope of non-formal learning, Eraut stated that "at one extreme there is the now widely recognised phenomenon of implicit learning, at the other there is deliberative learning in time specifically set aside for that purpose" (2000: 115). Meanwhile Schugurensky, who divided informal learning into three aspects, employed the following description of self-directed learning (which, as with deliberative learning, was placed at one extreme on his scale):

Refers to 'learning projects' undertaken by individuals ... without assistance of an 'educator' ... but it can include the presence of a 'resource person' who does not regard herself or himself as an educator. It is both intentional and conscious (Schugurensky 2000).

This excerpt highlights some of the key facets of deliberative learning, which is specifically 'intentional' and 'conscious' and which may be facilitated. The 'resource person' described above may include, I would suggest, the notpresent voice of curators through museum/gallery displays, audio guides etc.

There were multiple accounts of deliberative learning experiences related by the participants in the research project, although almost exclusively limited to those interviewees who were members of Friends groups.

I want to know, when it was painted, who painted it and what the title of the work is (Laing2).

You go there, and you know, you go to those places and then you think, well, we'll get a little bit of education as well, and go and listen to what they have to say [a museum guide] (Shipley2).

In these examples the female, 64 year old, former IT worker from the Laing, and the male, 66 year old, former engineer and lecturer from the Shipley, express how, for them, learning is a deliberate and important aspect of their visiting. For the former engineer, education is one of the reasons he visits at all: to get 'a little bit of education', whilst for the retiree from the Laing there are a number of pieces of information that form a vital part of her visit experience.

Meanwhile, the female, 68 year old, former banker from the Laing described making comparisons between artists, a deliberative, conscious, and intentional learning experience:

And if you're going somewhere and you know that they've got something by an artist that we have here [at the Laing] you like to go make a comparison. Or you like to just, just stretch your knowledge a bit as well (Laing3).

The act of making comparisons between different works by the same artist, I would suggest, is an extremely conscious mode of learning, whilst the admission that she likes to 'stretch her knowledge' shows an awareness of her own learning (which will be explored in greater depth in section 8.3). The same respondent later said:

> I think you have to particularly go down that road and research it and study it if you're wanting to get anything from it ... one of these days I will get my head round it and do some serious study, so that I feel I'm on an equal plane and can talk about it, but at the moment I don't and I feel there's sufficient in old art if you like, for me to get my teeth into and to appreciate (Laing3).

Her attitude – that art (in this case contemporary art) requires 'serious study' in order to understand it – suggests that for her, visiting galleries is an intellectual experience, with a strong emphasis on learning. Furthermore, for her to 'get anything' from visiting she feels it is necessary to have previously studied a topic. The role of deliberative learning in museum visiting extended not just to the visit itself, but beyond that, to 'serious study' outside of the institution. An opposing view was taken by Shipley1, the male, 70 year old, former museum director, who associated museums with knowledge and understanding:

> Well museums, museums it's for a kind of knowledge, and for knowledge and understanding of the world ... because the museum is more about knowledge (Shipley1).

His reason for visiting museums was to gain an 'understanding of the world'. In contrast to Laing3, above, this participant did not place emphasis on prior learning/knowledge but instead talked about the knowledge and understanding on offer to all (prioritising open access). Nonetheless, in both cases there is an implicit view that museums and galleries are about learning and, particularly, deliberative learning.

8.2.2 Reactive Learning

In contrast to both deliberative and implicit learning, reactive learning represents something of a mid-point on Eraut's spectrum:

We have found it useful to introduce one further category between implicit learning and deliberative learning to describe situations where the learning is explicit but takes place almost spontaneously in response to recent, current or imminent situations without any time being specifically set aside for it. This reactive learning is near-spontaneous and unplanned, the learner is aware of it but the level of intentionality will vary and often be debatable (Eraut 2000: 115).

Meanwhile, Schugurensky characterised a synonymous form of learning as "unintentional but conscious"; there was no previous intention to learn, but after the experience "he or she becomes aware that some learning has taken place" (2000). Because of the inherent problems when it comes to distinguishing, essentially, degrees of intentionality, as outlined above, it is difficult to isolate particular examples as definitively belonging to this category. However, the male, 70 year old, former museum director does recall an experience which seems to fit Schugurensky's description, above:

So I found it, found that exhibition a very enriching exhibition, in understanding more about Muybridge I guess (Shipley1).

On reflection this participant recognises the learning that took place, but he did not necessarily intentionally set out to learn, and indeed he remarked that in particular, he did not originally go to this exhibition with the expectation of learning about Eadweard Muybridge (a photographer) but it was rather something of a by-product. This is emphasised through his use of the words 'I guess' in the above quotation: which suggest that it is only now that he is evaluating the experience in terms of learning.

Although difficult to pinpoint, there are other potential cases of reactive learning, as this excerpt from the female, 68 year old, former banker from the Laing shows:

I think it's a big curiosity, about, about other art, art you haven't seen (Laing3).

In contrast to some of the quotations from the previous section (e.g. "I want to know, when it was painted, who painted it and what the title is" (Laing2)), the 'curiosity' described here is clearly not as intentional or directed, instead the participant talks about being curious to see art she hasn't seen before. Undoubtedly there is an element of learning involved in this process of seeing new art (if nothing else, learning/recognising what you have/haven't seen) but it is less stringently pursued.

Because of the nature of Eraut's typology, and the nature of non-formal learning (or indeed any learning) – which inevitably cannot be categorically divided into distinct types, but instead is more of a spectrum/scale – there is the potential to debate some of the experiences related by participants, in terms of their description as either deliberative or reactive. Eraut noted that the "level of intentionality will vary and often be debatable" when it comes to non-formal learning and "its articulation in explicit form could also be difficult

without setting aside time for more reflection and thus becoming deliberative" (2000: 115). As such, although the following quotations do suggest intentional learning, there is perhaps a case that they may (originally) have been reactive learning experiences:

You know sometimes, I mean partly I go to those, sort of, hoping to learn something more about art (Laing1).

Well I like to see the picture, that's the important thing for me. But then I like to know who's painted it (Laing2).

In the context of the interviews these two excerpts at first did seem to recall examples of deliberative learning, but it may be the case that in fact they were reactive. For example, Laing2 (the female, 64 year old, former IT worker) expresses a clear preference for 'see[ing] the picture' and, as almost an afterthought, states that she likes to 'know who's painted it'. On reflection she may have realised that she does like to know who an artist is, but she may not actually set out to intentionally find out such information when visiting.

8.3 Meta-Knowledge

Meta-knowledge (awareness of one's own knowledge) and metacognition (awareness of one's own thought processes) help shed light on how interviewees interpret their own learning and, subsequently, knowledge. Flavell defined metacognition as thoughts about one's own thoughts (1979) and Dunlosky and Metcalfe defined metacognitive knowledge as pertaining to people's "declarative knowledge about cognition ... facts and beliefs about cognition that you can state verbally" (2009: 2).

The following table, Figure 31, outlines a number of associated terms, defined by the same authors.

<u>Concept</u>	Definition	Examples
Cognition	Symbolic mental activities and mental representations.	- Learning, problem solving, reasoning, memory.
Metacognition	Cognitions about other cognitions.	
Metacognitive Knowledge	Knowledge about a kind of cognition.	 Knowledge about how learning operates. Knowledge about how to improve learning.
Metacognitive monitoring	Assessing the current state of a cognitive activity.	 Judging whether you are approaching the correct solution to a problem. Assessing how well you understand what you read.
Metacognitive control	Regulating some aspect of a cognitive activity.	 Deciding to use a new tactic to solve a difficult problem. Deciding to spend more time trying to remember the answer to a trivia question.

Figure 31: Definitions of Important Concepts Relevant to Metacognition (Dunlosky & Metcalfe 2009: 3).

There are numerous examples of interviewees using metacognition to describe their thoughts about their own thinking/cognition and by extension their own learning:

Well I like to see the picture, that's the important thing for me. But then I like to know who's painted it (Laing2).

I'm always searching for creative places, where I can challenge my understanding of the future (NV4).

I hate blockbuster shows, I hate, you know, I go to them out of necessity but I just find it so difficult, to learn anything, and enjoy anything (Shipley1).

Laing2, the female, 64 year old, former IT worker, analysed her own appreciation of pictures in art galleries, whilst NV4, the female PhD student talked about her desire for museums and galleries which were more 'creative places'. Meanwhile, the male, 70 year old, former museum director (Shipley1) described his dislike for 'blockbuster shows' because of the impact they had upon his cognition/his learning.

Laing4, the female, 63 year old, former sales assistant, noted that particular topics were of more interest over others, and was aware of this

'pickiness' in terms of subjects: recognising that things she was not interested in were something of a 'blank':

Yeah, I tend to be picky in my art subjects, erm, there's areas of things that I'm not interested in, sort of post-renaissance to Victorian art is a bit of a blank with me. Some areas aren't of, aren't of interest (Laing4).

A number of participants went one step further when it came to identifying their own learning styles, in line with the definition that "metacognition refers to your awareness and understanding of your own cognitive abilities" (Passer & Smith 2011: 323):

I like a general panel, the way we do here, and with captions, I don't think you can beat that actually for information (Laing3).

I do like to have tours, by people, by people who know what they're talking about (Laing3).

But again, I listened to the commentary before seeing the exhibits, I find it makes, it helps me to have the background (Shipley4).

All three of these interviewees identified particular display/exhibition features which they found particularly beneficial/positive in terms of learning experiences (whether that be panels, tours or commentary).

The 'awareness' and 'understanding' of one's own cognitive abilities can be evidenced in a number of comments made by the female, 55 year old, pharmacist who was a member of the Friends of the Shipley. She talked about contrasting two exhibitions or, rather, styles of exhibition (echoing the comments from Laing3, who talked about drawing comparisons):

> So I mean if you're seeing that, you're seeing how young people and modern artists are dealing with portraiture, and then you contrast it with, say, one of the Old Masters' exhibitions, and their portraits It's extremely stimulating to see the contrast between the two (Shipley4).

The participant went on to describe two very different visit experiences she had had, the first a trip to London when she visited a number of exhibitions/museums related to the Tudors (inspired by the related book *Wolf Hall* by Hilary Mantel), the second a meeting with friends over coffee: I joined it [a book on a similar topic] up with the exhibitions, and it was an interesting time. I went, I was alone. Contrast that with a recent trip with some friends, I met three friends at the Laing and we did not look at anything. We talked for about an hour and then we went for a coffee, isn't that? I mean we did not look at anything, so sometimes having friends to go with can get in the way of looking at exhibitions (Shipley4).

Whilst highlighting an interesting dichotomy between museum/gallery experiences that this one person was able to have, it also emphasises the fact that she was clearly aware of her own metacognition: she recognised the potential for a holistic and enriching learning experience by visiting particular (related) institutions in London, whilst also recognising the lack of learning she experienced when meeting friends as part of, primarily, a social occasion.

Metacognition was not restricted purely to those interviewees who were museum Friends: some of the non-visitors also showed an awareness of their own learning and cognition: the following a quotation from the female, 32 year old, full-time PhD student:

I think it's really boring to look at the past ... we all know the past! But it's always nice to imagine the future ... none of us can actually know it. So, I'm always searching for creative places, where I can challenge my understanding of the future ... I always felt that museums and art galleries are too much oriented backwards (NV4).

The use of the word 'challenge' here suggests a strong evaluative aspect to this interviewee's learning/cognition and how museum/gallery visiting fits into this. Self-awareness in this case (in direct contrast to many of the quotations, above, which illustrate metacognition amongst the regular visitors) provides reason not to visit museums and galleries: because they do not conform to this participant's view of forward-thinking places which particularly inspire her. Another of the non-visitors, the male, 27 year old, science teacher, remarked that:

> I do recognise that some museums are really good, have lots to do and interesting displays (as opposed to stuff behind glass with a minor reference to what it is and when it happened/was used) (NV6).

The participant recognised positive aspects to the museum and showed an awareness of what he particularly liked/did not like and, as the following (previously discussed) quotation shows, how this affected his learning:

It's boring, stuff behind glass and nothing to do but look at stuff. I look at things all day! I can look at stuff on a computer, if I can't touch it then I feel like I gain little by going to see it, except to say that I have seen it, or that I can 'appreciate the texture'! (NV6).

For him the ability to touch objects (and not see things behind glass) was a key one, and would allow him to 'gain' something from visiting. Although a slightly confused response, I believe he suggested that by purely looking at something it would be possible to 'appreciate' the texture, but that this was a poor substitute for actually *feeling* the texture.

Metacognition – people's awareness of their own thoughts, their cognition, and, by association, their learning – was always likely to occur throughout the interview process, since many of the questions asked of participants were designed to do just that – encourage them to think about their own thoughts. As one of the most obvious, and explicit, reflections on learning, it therefore demanded inclusion: if nothing else as an outline of how aware (upon reflection) participants were of their own learning.

8.4 Lack of Knowledge

This section briefly focuses on a lack of knowledge, sometimes expressed by visitors, regarding their own visiting, and in relation to museums and galleries, or rather, specifically, in relation to art and art history within these institutions. It also makes a point of contrasting the regular visitors with those who described themselves as non-visitors.

In terms of a demonstrable lack of knowledge, a number of the nonvisitors were vague in their answers, the following two quotations both answers to the question "what did you see?" on a particular visit (in both cases the interviewer also clarified that he specifically was looking for individual exhibits or objects):

Art. I saw a piece which I liked (NV3).

Lots of of paintings of all sizes (NV8).

In neither case did the participants (the male, 19 year old, full-time university student and female, 23 year old, office worker) provide any detail about what exactly they saw: they did not give either historical detail (e.g. concerning the artist) nor did they describe aspects of the objects themselves (such as technique, what was being portrayed etc.). This was, as can be seen below, in direct contrast to the response to similar questions given by the regular users. Although some of these participants – such as, here, the female, 65 year old, former doctor – did claim not to understand/know about art:

I like looking at art; I mean I don't say I'm all that knowledgeable about it (Laing1).

Nonetheless, she later demonstrated a considerable range and depth of knowledge regarding individual exhibitions/galleries she had visited:

A lot of it with Stanley Spencer has a religious theme behind it, and, he initially couldn't get into the army because he was only 5 foot 1 tall, they wouldn't have him. So he went as a medical orderly, so some of his paintings are related to his time as a medical orderly, you know, what happened in the hospital, and then he went out, then as the war went on I suppose they just wanted anybody as a soldier so, he was then became a soldier and went out, I think it was to Macedonia (Laing1).

As well as knowledge of the artist and his history she was also able to relate this to his work, identifying themes and inspiration. She later was able to demonstrate both knowledge of, and the ability to recognise, facets of individual pictures, and artistic techniques:

> It looked so ... modern, so up to date, and some of, I mean some of it was chocolate box-ey thing, but the techniques used, they just looked 'now', you know, they just looked, things you would say modern artist do with some of it, and it was done in 1880, and it was just incredible, it was so modern, they used bold paint as well, it was, it was something that was just, it was brand new (Laing1)

Although the participant was not able to entirely use the language of, for instance, a professor of art history/theory (seen in her use of terms like 'chocolate box-ey') she was nonetheless able to identify perceived modernity within the pictures, highlighting the boldness of colour and the radicalism of (in this case) impressionist painting. This contrasts with the typical response of many of the non-visitors when asked about specific examples (see above): in many cases they were able to say whether they liked/disliked something, but they seemed incapable of putting into words just why this was the case. The female, 23 year old, office worker noted that she "was slightly disappointed by the Mona Lisa" (NV8), but could not say exactly why, except for vaguely referring to its size and the crowds.

Generally there was an apparent difference between the non-visitors and the more regular users: the latter group often demonstrated a much greater range of art/art historical knowledge when asked, whilst the former group were rarely able to recall such information. The female, 68 year old, former banker from the Laing was able to talk at length about specific styles of art:

> Yes, for preference I prefer Flemish art, what they call early primitives, which is sort of, fifteenth century. Which is, erm, fairly narrow ... you're talking about Memling and people like that, very sort of stylised faces and delightful narratives and history about them (Laing3).

As well as referring to particular styles of art and artists, the former bank worker also describes specific aspects of the art she is interested in, using words and phrases such as 'stylised faces' and 'narratives'. Virtually all of those interviewed who belonged to Friends groups used art theoretical/historical appropriate terminology at points during their interviews (e.g. the male, 66 year old, former engineer and lecturer from the Shipley talked about "brutalist architecture" (Shipley3)) whilst there was a distinct lack of such language amongst the non-visitors.

It should be noted that this section was concerned with *demonstrable* knowledge – what participants were actually able to relate. It was likely that some of the non-visitors did possess a certain level of knowledge regarding museums/galleries and their exhibits but were incapable or relating/expressing this. At the very simplest level virtually everyone is capable of decoding some forms of art: even if that is restricted to identifying the presence of certain

objects (e.g. a vase of sunflowers) within a picture, however this research was concerned with the decoding of artworks above this baseline.

The nature of the research methodology means that there are inherent limitations when it comes to interpreting responses, which are what make the next section, on implicit learning (or tacit knowledge) particularly problematic.

8.5 Implicit Learning

Implicit learning, as one of the three aspects of Eraut's typology of nonformal learning (2000) represents a key area for study, and this section sets out to do just that, in conjunction with the data gathered through interviews with museum/gallery users and non-users. Whilst the chapter till now has dealt with explicit learning (and by association the declarative (explicit) memory), here I will instead focus on the non-declarative: implicit learning and tacit knowledge.

The diagram in Figure 32 shows one breakdown of the long-term memory, specifically, in this case, linking different aspects of the memory up to physical parts of the brain where they are believed to be centred (Smith & Kosslyn 2007). This diagram highlights the fact that these different parts of memory have, neuroscientifically through the use of brain imaging studies, been shown to take place in different parts of our brains: giving credence to their disassociation as discreet components. Furthermore it shows implicit memory as four differing parts, or rather, as the outcome of four different learning; and non-associative learning.

Researching implicit learning is, as mentioned earlier, a problematic task, given that by its very nature tacit knowledge is silent. Frensch noted that "verbal reports, be they free recall or cued recall, are often unreliable and invalid measures of consciousness" (1998: 62), in other words that which can be gleamed from interviews may not necessarily show whether or not something is conscious/unconscious (/subconscious). However, I would argue that verbal reports are not entirely invalid and can, indeed, be a potentially useful indicator of what an individual may or may not have learnt/gained from an experience, so long as they are treated with care, which I will endeavour to do throughout.

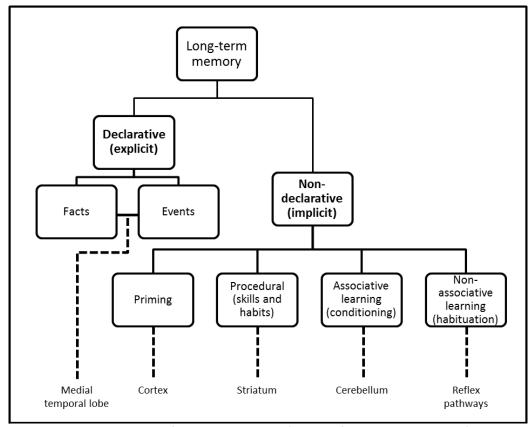


Figure 32: The Organisation of Long-Term Memory (adapted from Kandel et al. 2000).

Before I begin to introduce interview excerpts it is worth re-defining implicit learning and establishing what, exactly, this section is concerned with. Frensch suggested that implicit learning should be defined as "the nonintentional, automatic acquisition of knowledge" (1998: 48). Dienes and Perner, meanwhile, advanced the idea that "implicit processes are essentially related to a lack of meta-cognition" (2002: 80) and that "implicit learning … produces knowledge we do not know about" (ibid.: 82). Finally, Buchner and Wippich advanced the idea that "implicit learning refers to the acquisition of knowledge about the structural properties of the relations between (usually more than two) objects or events … knowledge acquisition is incidental" (1998: 6). Although all three quotations are related and similar, there are some differences in terms of emphasis. As a result, I will take a broad approach here, looking for knowledge which participants do not appear to know about, as well as evidence that knowledge acquisition may have been incidental or automatic.

In order to identify potential cases of implicit learning, analysis of interview data has focused on individual interviews: attempting to find

instances of participants saying one thing which is then later contradicted. In other words, looking for scenarios where an interviewee claims one thing, and then seems to provide evidence (subconsciously) which goes against this. This is, of course, a far from perfect approach, but given the difficulties associated with researching implicit learning, it is felt that this may provide an indication of potential examples of implicit learning. Issues which need to be considered include the fact that what are essentially being compared/analysed are the verbal reports of participants, which may not necessarily reflect reality. Participants may not always tell the truth and may be affected by the context and the presence of a researcher (Keegan 2009: 82), "researchers need to be aware of the potential of data collection methods, interventions and themselves to profoundly (and substantially) influence participants metacognition" (Anderson et al. 2009: 192): especially relevant when considering the links between implicit learning and metacognition (see Dienes & Perner, above). Given that there is a view that "certain kinds of human knowledge [are] ... difficult or impossible to verbalise and delimit" (Bjørnåvold 1997: 64), which may include implicit learning, research methodologies need to be creative - hence this approach - whilst acknowledging the inherent limitations that apply to conclusions.

The following excerpts, and analyses, relate to examples of contradiction and what this might reveal about subjects' implicit learning. The female, 64 year old, former IT worker from the Laing, when asked about how she views museums and galleries replied that:

In a museum it's an object; where you don't, you don't feel anything about it (Laing2).

Whilst then stating, later on in the interview, that museums were:

A collection of objects: some of them interesting. The most interesting museums you actually get to touch but that's very unusual ... it's stuff from the past, you can see things that were in your own home when you were younger, like, go to Beamish, you know, you can see, my grandma had one of those. It's just, it's nice to see things from the past, and nice to see how things from the past look, modern, look, don't mean modern ... contemporary, no not contemporary, because that's ... you know they wouldn't look out of place nowadays, it's just interesting and I like to take my granddaughter, because she gets fascinated by things like that (Laing2).

Although originally taking the position that museums, and their objects, were not something you could feel emotions about, the participant actually related some incredibly emotive episodes, including seeing things that reminded her of her past (her grandma) and using words/phrases like 'interesting'; 'nice to see'; and 'fascinated' to describe her and her granddaughters' reaction to museum objects. Whilst explicitly coming to the conclusion that she felt one way about objects in museums/galleries, the way she retold narratives about actual visits (with regards, in particular, the language she used, but also her demeanour: which was often expressive and enthusiastic) suggests that subconsciously she felt something different.

The female, 63 year old, former sales assistant, from the Laing, when asked why she was interested in museums/galleries (an assumption based upon her membership of the group) and whether her upbringing had played a role, responded that:

No, I think it's just an innate interest (Laing4).

Such a belief – of an interest being simply innate – suggests that she was not aware of any prior influence on her current habits/interests. Yet, later on in the interview, when asked about her childhood, she related a number of occasions when she was taken to museums/galleries by her grandfather, stating that:

You know, when I was very little. It was very much of a, things in wooden cases, but you know, I was a sort of boring, geeky child that just loved, looking in, you know, boring wooden cabinets. You know, I didn't need things to play with (Laing4).

She spoke with genuine fondness regarding these experiences, and although it is not conclusive, I would suggest that this prior experience, interest, and love of museums may well have played a part in her interest later in life. She was unconscious of this relationship (believing the interest to be 'innate') and yet it most probably existed. Oskala et al. found that those who had

attended/participated in the arts when growing up had a "significantly higher chance of being an active arts consumer as an adult" (2009: 5).

Similarly, another example of potential 'unconscious' knowledge can be found in the interview with the male, 66 year old, former engineer and lecturer from the Shipley group, who talked about his involvement with the gallery:

It's a practical side to it, that's what I do, I mean I don't go and say oh, I like this, or I like that, and I do this, that's not my, that's not my field (Shipley2).

Specifically he said he was involved with the 'practical side' and referenced helping out the Friends group in terms of their finances and accounts. He claimed not to possess any art-related knowledge and claimed not to express likes/dislikes when it came to art either. However, in reality he actually displayed a high level of knowledge, using appropriate terminology (he referred to the "Impressionists"), knowing the names of artists (referencing Claude Monet and John Singer Sargent amongst others) and knowing when particular exhibitions would be on where (he spoke of a watercolour exhibition at Tate Britain that he intended to visit). Furthermore he also *did* express likes and dislikes and explained his interests:

If you look, if you look at the pictures you know, you can relate it to your home environment, you know, this is where my dad was, so it's things like that that's my interest. The, this idea of, erm, I mean that's why modern art is, I find sometimes difficult (Shipley2).

It is possible that this response was motivated by a sense of modesty, or was due to the presence of an interviewer, however it could equally be suggested that he was simply unaware of his own ability and his own response. In reality it is probably a combination of the two: the participant was both deliberately underplaying his own knowledge, but also unintentionally underestimating it. Implicit learning, in this case, may help explain the unconscious/tacit knowledge which this participant possessed in terms of both art historical 'facts', but also his ability to explain why he liked/disliked particular artworks. Examples of implicit learning are not restricted purely to the regular visitors, as the following set of quotations from one of the non-visitors, the male, 23 year old, volunteer, show:

I try to avoid galleries at all costs as I don't understand art and find the experience tedious and dull ... I didn't really pay much attention to be honest, I really don't find art interesting (NV2).

Whenever I hear the words modern art I think of that Turner Prize winner who's entry was essentially some soiled bed sheets and think 'how in any way, shape, or form is that art?' (NV2).

In the first excerpt the participant suggested he had no interest in art and paid it no attention. However, the second quotation showed a level of artistic knowledge based upon the Turner Prize and the installation 'My Bed' by Tracy Emin; rejecting it because, quite probably, he cannot decode it. Whilst not knowing the exact details of the piece, the interviewee clearly possessed some knowledge of art which jarred with his original suggestion that he did not pay attention to art/galleries. Whilst Emin's nomination for the Turner Prize was an extremely newsworthy event, and received considerable coverage in the UK media at the time, there is nonetheless at least part of a sense that this participant had picked up some knowledge on the subject despite his intentions.

As was suggested in the previous section (8.4) there are some examples of people claiming a lack of knowledge but then actually demonstrating the knowledge which they have previously denied. Whilst this may be caused by factors such as modesty and the affect a researcher/context may have had, there is also the potential that participants were unaware of the range of knowledge they possessed: they had learnt it unintentionally and/or unconsciously. The female, 65 year old, former doctor said the following:

And, you know, I like looking at art, I mean I don't say I'm all that knowledgeable about it, I mean, I know what I like, you know (Laing1)

However, later in the interview, when asked to describe a recent visit to a museum or gallery, the interviewee talked at length about a visit and demonstrated a broad level of knowledge which related both to the historical aspects of her visit (and the artist involved) and artistic ones:

Yeah, well of course we've just come back from, like I say, near Windsor and we went to the Sandham Memorial Chapel, that Stanley Spencer designed and then painted the whole interior. It's an absolutely fantastic place, there's only natural light coming in through one, just above the doors. So they say the best time to visit is sort of late morning, early afternoon, cus then you get the light coming through properly. And we were very fortunate, I mean we were late morning, but it was sunny, and a few years ago they'd just cleaned the whole place, so the colours ... And it's the history of the First World War, from the basic soldier, you know, not the officers and things but what the ordinary soldier did and it's all these different scenes depicted. I thought it was fantastic and I think it took him six years to do. And at the end of it he must have had a wonderful sense of achievement to look round, at this wonderful, you know, because I would love my grandson to see that, to see how the First World War, the ordinary things like, with their kitbags (Laing1)

The participant spoke about the way the light affected the viewing experience; she detailed some history of the gallery ('a few years ago they cleaned the whole place') and how this affected the colours; as well as explaining what had motivated the artist and exactly what he had depicted (in terms of the First World War). As well as demonstrating knowledge relating to a number of visit aspects she also demonstrated a depth of knowledge and showed evidence of knowledge synthesis: putting together elements to form meaning (Bloom 1956). Although this level of knowledge clearly developed out of a specific gallery visit, the lengthy description provides evidence that the participant's original comment, about not being 'all that knowledgeable', is a questionable one.

The female, 64 year old, former IT worker from the Laing commented on her lack of knowledge/her inability to remember specific facts:

I can't remember the names of artists! (Laing2).

Yet, during the interview, she recalled artist names on at least three separate occasions:

Or they'll say, "Oh I really want to see such and such, do you fancy coming with us?" Like Joe Cornish, someone said, I really want to go see that so we all went, you know (Laing2).

And I was never that, I was never that interested, where did we go, the Gaudi ... I think it might have been Gaudi museum (Laing2).

I hate, don't know if there's a favourite artist, depends on who I've last seen. I mean I love the John Martin's [at the Laing], they're impressive, but I don't love all John Martin's work (Laing2).

These recollections, once again, suggest that in this case the participant had experienced implicit learning: either learning this information without realising it, or no longer being aware of the knowledge she possessed until required to directly use it.

The majority of the examples explored so far have concentrated on, or at least been potential cases of, knowledge which those involved are unaware of (but are able to relate if prompted correctly). However, the following quotation gives an insight into a case of learning which itself is unconscious (but which results in conscious knowledge). The female, 63 year old, former sales assistant from the Laing group spoke about recognising when something was different or out of place at a National Trust property (Wallington) which she regularly visited:

Erm, it's sort of really it's like visiting old friends, because I know the house pretty well, but there's always, you can always spot something different, some detail in the paintings in the hall, or some new object (Laing4).

The participant made a point of saying that she did not actively seek out learning opportunities when she visited, preferring, instead to go because she enjoyed the surroundings and in order to have a coffee in an environment she liked. However, she was able to notice when something changed, suggesting that implicitly she recognised the original 'pattern' of objects and pictures; "implicit learning may help us to pick up repeated patterns or relationships among stimuli or events, and by doing so help direct our conscious learning processes towards interesting features of our environment" (Braisby & Gellatly 205: 560). Similarly Ziori and Dienes explained how implicit processes are able to 'take over' once a certain level of proficiency is reached: "Maybe, for example, at an early stage of learning the explicit component dominates, as people try to apply rules and explain conceptual relations, but with increased experience, the implicit component takes over, as past exemplars are easily retrieved from memory" (Ziori & Dienes 2007: 621).

The female, 55 year old, pharmacist from the Shipley Friends suggested that when visiting galleries with friends, they would often talk about what they liked/did not like and try to reach conclusions regarding people's tastes:

> We would always decide who liked what, so, people would, they would say they liked this and we would try to arrive at a reason. And, we would try to each appreciate the others particular thing that they took us all to see. So I suppose trying to formulate what their likes and dislikes were (Shipley4).

However, she expressed doubt as to whether they were able to reach satisfactory conclusions (in terms of why they liked specific things) and noted the fact that when visiting with her friends, people would often have to compromise in terms of what exhibitions/galleries were visited. There is a belief that implicit learning may help people to formulate likes and dislikes, through its association with a "phenomenal sense of intuition" (Berry 1996: 220) without necessarily being able to say why/explain their choices:

That is, people do not feel that they actively work out the answers. Rather, that they make particular responses because they 'feel right', or typically they may simply believe that they are guessing (Berry 1996: 220).

Essentially, that is to say, they are unaware why they feel one way or another (and are unable to rationalise their decisions/opinions).

Personal connections with museum objects or displays have already been touched upon (in Chapter 7); however, their potential relation to implicit learning necessitates their inclusion in this section. Paris and Mercer broached the topic: "we suggest that visitors are often guided implicitly to recognize or search for personal connections with objects, the Me-self features of their own identities" (2002: 403). Meanwhile, one of the most pertinent quotations on the subject comes from the male, 70 year old, former museum director, from the Shipley, who talked at length about the connections he drew with an exhibition of George Shaw: Because I haven't seen an exhibition of his work previously, and, you know, I was really impressed, because it's a kind of landscape, that I was kind of brought up with, you know, it's the hinterland between the new housing estates in the 50s and how they kind of crumbled ... I found these incredibly moving pictures, which he'd done in Humbrol enamel because it was the enamel that he used to make models and it was, very much a working, what he would describe as a working class thing to do (Shipley1).

Shipley1 talked about the connections to his own childhood (identifying a landscape he was 'brought up with') that he drew with the work by Shaw. His appreciation for the pictures was, in some ways regulated by the fact that he found their subject matter and even technique (the use of paints which were 'working class') relevant. The interviewee's interest in these pictures was highly motivated by the personal connections he made, which may have been guided implicitly (an explanation proffered by Paris & Mercer, above).

Whilst this section did not provide conclusive proof of implicit learning, it was never likely to be able to do so, and as such has instead sought to highlight potential cases of implicit learning, and suggest how participant responses might be understood in terms of how they fit into this aspect of Eraut's typology of non-formal learning (2000).

8.6 Discussion

This chapter focused on two overarching themes, explicit learning and implicit learning. The first of those, explicit learning, was divided into two categories which made up part of Eraut's 2000 typology: deliberative learning and reactive learning. Whilst there were a number of excerpts which seemed to suggest some participants (regular visitors – members of Friends groups) did deliberately set out to learn, there were relatively few identifiable cases of reactive learning. This may have been because participants simply did not identify spontaneous experiences as especially different from their more preplanned ones. Indeed the two terms differ in definition only on the basis of their level of intentionality (deliberative is intentional whilst reactive is not). However, as was demonstrated, it is impossible to draw a definitive line between the two terms and as such I would propose that instead of thinking of them as distinct phenomenon, they should instead by understood as markers

on a continuum. Neuroscientific research has shown that explicit learning and implicit learning take place in distinct, different, parts of the brain (Sternberg 1999: 176); however, there is no such evidence which separates deliberative and reactive learning.

In contrast, implicit learning is an entirely different form of learning (although that is not to say that explicit and implicit processes do not affect and influence each other). Identifying cases of implicit learning in the interview data has been one of the challenges of the research and as the previous section showed, whilst it is extremely difficult to isolate definitively implicit examples of learning, it has been possible to suggest instances which may have involved either unconscious learning in the first place, or which may have resulted in tacit/unconscious knowledge.

Inherent problems with methods which utilise verbal report as their primary means of gathering information (e.g. Frensch 1998) mean that this particular aspect of the project may have been better served through data collection methods which, for instance, involved visitor observation (during museum/gallery visits). In particular, observation combined with interviews, or more creative forms of observation/interaction with visitors (e.g. the RCMG studies from 2001) may provide better ways to study implicit (and by association non-formal) learning. This route should be prefaced with the fact that this would not necessarily help collect information from non-users (unless they were recruited and invited to visit/accompanied on visits – a far-fromperfect solution).

The justification of Eraut's typology, in terms of its implicit/explicit components, gives further credence to the dual model in terms of its theoretical underpinnings. The contradictions expressed by participants, which have been taken as possible evidence of implicit learning, allow for some understanding of how implicit learning might be investigated and as a result allow one to posit that intuitive aspects of learning, which the dual model suggests occur in the behaviour of more advanced users, are practised (unconsciously) amongst at least some of the participants in the study.

Higher/advanced positions on the dual model are thus characterised, at least partly, by an increased likelihood that individuals will evidence implicit learning (that is not to say that lower positions are incapable of this form of learning, but rather that it is a characteristic of intuitive behaviour and is subsequently more likely amongst those at an 'expert' level on the model).

The next chapter returns its focus to the dual model of Chapter 4: the combination of cultural capital and skill acquisition. It will take this model as a starting point in terms of understanding non-formal learning in context and, as this chapter has also done, analyse the methodology as a means of identifying and evaluating this form of learning; conceiving of the process more holistically – as a visitor experience – rather than the approach largely followed over this and the previous chapter.

Chapter 9 – Discussion: The Dual Model

9.1 Introduction

The dual model was conceived and explained in Chapter 4 as a conglomeration of models of skill acquisition and cultural capital. Whilst the model was used partly to structure the practical research process and – in particular – the interview format, it was also envisaged as an analytical tool: a means of understanding why people behave in the way that they do. With that in mind, this chapter, the final discussion of the thesis, aims to assess to what extent the model was useful and propose ways in which it might be utilised in order to understand non-formal learning in context.

The chapter is broken down into a further three sections which all deal with aspects of the dual model. The first of these (9.2) is concerned with the categorisation of different 'types' of visitor; or rather, the levels of skill acquisition/cultural capital that structured the model originally. Specifically this section will focus on three of these levels: 'novice', 'competent' and 'expert.' In each case examples of participants who fall into these categories will be highlighted and evidenced – according to the characteristics originally set out in the model.

Section 9.3, meanwhile, turns its focus to a more critical analysis of the dual model, drawing upon the categorisation in section 9.2 in order to test the model's usefulness. Finally, in terms of the main body of this chapter, section 9.4 makes comparisons across the two original groups of participants (the gallery Friends and the non-users) highlighting similarities and differences in the context of the analytical model and tests out the original hypothesis that the non-users would be 'novices' according to this model, whilst the gallery Friends would either be 'competent' or 'experts.' The chapter ends with a broader discussion section.

9.2 Categorisation

The dual model of skill acquisition and cultural capital identified a number of potential 'levels' – ranging from 'novice' to 'expert' – which could be defined according to lists of characteristics relating to behaviour. Whilst these

categories were based upon the model of skill acquisition proposed by Dreyfus and Dreyfus (1986), they are untested in terms of cultural capital and this section aims to identify whether people can be categorised into three of these levels (the two extremes and the most central), which will form three further sub-sections (9.2.1, 9.2.2 and 9.2.3). Each section will highlight a number of individual participants who appear to 'fit' into these categories, based upon their interview responses and the lists of characteristics in the dual model.

Specifically this division of participants into groups will be based upon a number of key barometers, including how they make visiting decisions; who they visit with; whether they visit with specific short- or long-term goals in mind; whether they plan for/during a visit; their emotional responses; their visit strategy; and their perception of the museum visit. Gola suggested that "informal learning can be measured based on the level of intentionality ... although external conditions and the dimension of the learning context need to be considered" (2009: 344) and as such a number of these barometers do focus on the intentionality of participants when it comes to their visiting habits.

Although participants have been separated out into the three following categories that is not to say that there are not crossovers between these levels and such instances will be outlined over the course of each section. Structurally, these three sections will revolve around individual barometers/measures of cultural capital/skill acquisition (devolved from the characteristics of the model), exemplified by participant quotations.

9.2.1 Novice

At the lower end of the scale are 'novices': those who exhibit the least cultural capital and skill acquisition in terms of museum/gallery visiting. A number of characteristics marked out this level and these were evidenced throughout the interview process.

One of the most distinctive descriptors (when drawing comparisons with the higher levels (particularly the 'expert' level) on the dual model) centred on who participants visited/had visited museums/galleries with. A dichotomy was explored between whether participants tended/preferred to

visit with others and whether they were comfortable to visit alone. In the case of the 'novice' level, the former (preferring to visit with others) was a defining characteristic. Many of the non-users expressed a preference for visiting as part of a group when discussing the rare occasions that they had visited in the past, e.g.:

Most times I have visited museums it is because a partner or friend wanted to go (NV2).

Interviewer: Why did you visit? *Interviewee:* Because my friends wanted to go (NV5).

Interviewer: Why did you visit? *Interviewee:* I was in London and my daughter wanted to go (NV7).

In these instances the interviewees explained their past museum visits (in many cases some years ago) as a result of someone else wanting to visit. These participants did not visit alone, either because they had no desire to visit at all or because they did not have the confidence (/cultural capital) to visit, and instead attended as a companion of others.

However, not all of the non-users were so reluctant to visit: others, such as the female, 21 year old, part-time worker, described the fact that she didn't "have someone to go with" (NV1) as the key reason she didn't visit; similarly the male, 19 year old, full-time university student, when asked why he didn't visit museums/galleries, replied "because I have no-one to go with" (NV3). Furthermore, when discussing their leisure habits more generally many of the non-users highlighted the social aspect of activities as one of the most important:

> *Interviewer:* What do you look for in a leisure-time activity? *Interviewee:* Something I can do with friends and something that everyone will enjoy (NV1).

> Being with people, or social interaction, is very important (NV2).

It was clear that these interviewees (all drawn from the non-user group) were not comfortable visiting museums/galleries alone, and the few occasions they had visited in the past had virtually all been as part of a group/with others.

Novice users are less likely to have goals in terms of their visiting habits: in particular the higher up one progresses through the model the more likely participants will have long-term goals and will perceive what is possible and how to achieve it. Whilst the majority of participants did refer to some intended outcomes when discussing past visits, these rarely focused beyond the short-term: the female, 23 year old, office worker noted that a visit to the Louvre occurred because:

We were in Paris and it seemed like the thing to do when in Paris. Also I think it was free for under-25 year olds (NV8).

There were no apparent long-term outcomes associated with this visit – it was simply 'the thing to do' (made all the better because it was free). Certainly superficially it appears that there was no inherent motivation for visiting, however, the reason this participant regarded the Louvre as a necessary component of a visit to Paris must be rooted in her habitus (not everyone, on a visit to the same city, would take a similar view); her choice to visit was not random but was influenced by an a priori belief. This complicates an analysis of the response, although, whilst satisfying her original embedded view that the Louvre was something that 'should be done', a complete lack of subsequent interest in the visit (evident through her recollection) suggests that there were no further (long-term) goals being pursued.

Similarly, when asked whether she would visit a particular institution again (after describing visiting some years previously) the female, 32 year old, full-time business student stated that:

I saw all I wanted to see. No point to see them again (NV5).

Although she may have visited with goals in mind (noting that she did want to see something originally), there appear to be no long-term goals associated and, indeed, once she had seen what she wanted to (despite the considerable passage of time) she had no desire to return and could see no benefit in doing so.

Meanwhile, the male, 23 year old, volunteer perceived no benefits to visiting at all and did not suggest that there had been any goals pursued on a particular visit:

I view it as several hours of my life that I will never get back (NV2).

This perhaps signifies that he did not originally visit with a goal in mind and instead looks back upon it as a waste of time. The lack of long-term goals, and the lack of an ability to see long-term benefits when discussing museum/gallery visiting, does mark out a number of participants and is a characteristic shared by many of the non-visitors (although only largely identifiable amongst those who had visited at least once relatively recently).

Along with long-term goal orientation, more advanced users were expected to perceive events and situations holistically, hence those lower in the scale would hypothetically not exhibit this kind of behaviour, which was largely the case in a number of instances. The non-users, when talking about what they had seen on previous museum visits were rarely able to demonstrate an awareness of a museum's overarching style and generally did not discuss exhibitions holistically, but rather as a series of individual experiences:

We saw individual exhibits, objects, paintings (NV5).

I saw lots of paintings, of all sizes (NV8).

The participants picked out individual exhibits and remembered not the whole exhibition, its themes, or unifying approach, but instead talked about seeing individual paintings or objects.

A further characteristic of the novices in the dual model was that they would be less able to cope with crowdedness. Though very few of the participants in the whole project really discussed this aspect of visiting, one of the non-users did talk about the presence of lots other people as causing her (the female, 32 year old, full-time PhD student) specific discomfort:

I feel uncomfortable, out of place (NV4).

Going on to describe one gallery visit:

I felt I went there for different reasons than the others, so a bit out of place (NV4).

Whilst in the case of the latter quotation she suggests feeling out of place because she had different reasons for visiting (accompanying friends) this nonetheless still related to the other visitors – who left her feeling uneasy.

Although many of the characteristics in the dual model applied to the perceived 'novices' (the non-users) there were some discrepancies. In particular the model suggested that a strong emotional response was indicative of a more advanced user (based upon the McDermott-Lewis study of 1990), which did not necessarily match up to the reality of the responses given by all participants. Some of the participants *did* talk about being "indifferent" and "uninterested" (NV2) but others used words like "angry" and "sad" (NV3) to describe how they felt about modern art, and when visiting some galleries. It should be noted that the instances of emotional responses, in many cases, related to negative emotion (feeling angry or upset), but nonetheless these are valid emotions, and often they were expressed strongly. The female, 23 year old, office worker who had recently graduated said that contemporary art made her "angry" (NV8) and she talked at length, clearly experiencing strong emotions whilst doing so, on the subject:

It becomes an excuse for anything which is shocking, weird or just plain stupid ... I believe most things that are labelled as modern art are not 'art' at all and do not deserve anybody's time or attention (NV8).

It was apparent that strong emotions were certainly not confined to simply the higher/advanced stages of the dual model, and instead whether participants experienced such emotion seemed unrelated to their cultural capital/skill acquisition.

As expected, using the dual model in order to identify 'novice' participants highlighted many of the non-users as belonging to this category. Across a number of differing characteristics these same users produced responses which fitted into the mould of the 'novice' user. This was not an entirely universal situation however, and the next section will detail instances

of one non-visitor, in particular, who potentially could be described as belonging to a higher category. Furthermore, not all the descriptors utilised in the model fitted this pattern – specifically the emotional response of participants did not seem to be modulated by their levels of cultural capital/skill acquisition.

9.2.2 Competent

Whilst many of the 'novices' described above were (as anticipated) nonvisitors, it was not initially known (before the project started) whether those belonging to Friends' groups would generally fall into the categories of 'competent' or 'expert' users. This section deals with the former category and demonstrates that a number of participants did seem to fit into this level – displaying characteristics which are largely drawn from the middle sections of the model. As would be expected, the quotations below show more of a mixed picture however: with interview participants fitting some, but not all, of the characteristics associated with 'competent' users. This reflects the fact that the model proposed 'levels' and ascribed terms (e.g. 'novice', 'expert') for ease of use rather than because it was envisaged people would fit neatly (and perfectly) into any one category. As such the people who have been quoted from, in this section of the chapter, are thought to best represent the 'competent' status: broadly conforming to a reasonable number of the descriptors.

As was discussed in the previous section, utilising clear, long-term goals (as opposed to thinking purely about immediate satisfaction or outcomes) is proposed as a facet of behaviour adopted by more advanced individuals. When it came to the goal-orientation of those participants who I would suggest fall into the 'competent' category, the picture was largely one of universal adoption of at least some long-term goals. Although the length of projection of these goals differed (some talked about goals which related to their present state, whilst others thought much further into the future) participants mostly thought beyond the immediacy of the visit and related their experience to wider aims.

The female, 66 year old, housewife, married to Shipley2, suggested that the reason behind most of their visiting habits was an interest in the local area:

We were really looking for some local interest (Shipley3).

Museum/gallery visiting for her (or, in fact, for her and her partner) was not haphazard or random, but was regulated by the desire to learn more about their area and she spoke with a passion for her home town (Gateshead) and its galleries. The couple made their own meanings which were not related to the field, in itself a form of advanced visiting (although by a different measure than those favoured/valued by the field).

In contrast, the female, 55 year old, pharmacist from the Shipley (also in Gateshead) had a more specific, but broader, response when questioned about her motivation for visiting, suggesting that her aims were centred on:

History: a sense of the regional history and the national history (Shipley4).

Whilst specifically interested in history (and, as further quotations will show, specific historical epochs) she was not solely interested in the local/regional area, but also nationally. She also spoke of visiting commercial galleries:

I'm interested in contemporary galleries, I'm interested in commercial galleries, to see who they're hanging and what is selling and what is not (Shipley4).

A clear indication that visiting ran along goal oriented lines which extended far beyond the reaches of an individual visit.

Although primarily composed of those participants who belonged to Friends groups, one of the non-visitors could be thought of as a 'competent' user. The male, 27 year old, science teacher had had occasion to visit museums whilst studying for his university degree, and he did so with clear goals in mind, this an excerpt referring to his reasons for visiting the Fitzwilliam Museum in Cambridge:

To see what it was like and how we could use it for what we do in our jobs (NV6).

By relating his visit to his career he showed how, when he did visit (an admittedly rare occurrence which he had not undertaken for some time), he was able to think longitudinally and adopt long-term goals.

The female, 65 year old, former doctor, from the Laing (Laing1) talked about different kinds of goals when compared with some participants, discussing how visiting with others helped strengthen the social side of the groups she belonged to (e.g. a University of the Third Age group, the Friends group) and how visiting was not simply about individual experiences but about building a sense of community.

The same interviewee also illustrated a further characteristic of competent users: that they undertake conscious, deliberate planning, discussing the research she saw as a necessary part of visiting:

No, I think, well, if you hadn't researched it beforehand, you would go to an information centre and try and pick up relevant leaflets, you know, about what you're going to do (Laing1).

Going on to mention serendipitous discoveries of museums/galleries, such as those listed in a Saga holiday brochure:

And it had a list of all the galleries they would go to in Liverpool, and I said, oh yeah, I needn't necessarily go with them, I have a friend I could go to, stay in a Premier Inn and visit all the galleries (Laing1).

Whilst she did not necessarily plan every aspect of a pre-visit (coming upon these particular places to visit by chance), she would nevertheless consciously and deliberately plan the logistics of visiting.

When considering whether these users felt comfortable visiting alone/needed to visit with others, there was a more mixed response than some of the previously discussed categories of characteristics. Some of the 'competent' users clearly showed an ability, and sometimes even preference, for visiting alone:

I mean we did not look at anything, so sometimes having friends to go with can get in the way of looking at exhibitions (Shipley4).

The female, 55 year old, pharmacist noting the drawbacks visiting with others can have, whilst also showing a sensitivity to visit companions:

But, when it's not a partner you're with you have to be very sensitive to whether they're really interested or not, if you're interested, so it can be easier to go alone really, to do things at your own pace (Shipley4).

For her, visiting as part of a group, or with others, was a potentially detrimental experience in terms of her enjoyment of a gallery/museum and she was not only comfortable visiting by herself, but at times found it 'easier'.

Meanwhile, the female, 65 year old, former doctor from the Laing group did not mention visiting galleries on her own, but only talked of her visits as part of groups:

Well with our U3A group we go to Northumbria University Gallery, go out to the Shipley (Laing1).

Well, and you see, our Laing trips out, often we go to galleries as part of our days out (Laing1).

That is not to say that she was particularly uncomfortable visiting alone (indeed she attended the interview, at the gallery, by herself), but rather than she had a preference for visiting with others (and in particular, with groups of others).

There was also a range of responses when considering whether participants perceived their visit experiences holistically or not. The male, 27 year old, science teacher, as with many of the non-users discussed in the previous section, seemed to view museums as a collection of individual objects:

It's boring, stuff behind glass and nothing to do but look at stuff (NV6).

The teacher clearly expresses his view of objects as merely items 'behind glass'; 'stuff' to be looked at. There was not a sense that he perceived of them in more complete, universal terms.

However, other users in this bracket did convey an appreciation of a wider focus; the female, 65 year old, former doctor, described a visit to the Stanley Spencer gallery in Cookham:

And it's the history of the First World War, from the basic soldier, you know? Not the officers and things but what the ordinary soldier did and it's all these different scenes depicted (Laing1).

And at the end of it he must have had a wonderful sense of achievement to look round, at this wonderful ... (Laing1).

A lot of it with Stanley Spencer has a religious theme behind it (Laing1).

Instead of focusing on individual artworks, individual scenes in the gallery, she talked about the holistic result of these scenes: identifying overarching themes and considering the overall effect (both for herself and for the artist).

The female, 55 year old, pharmacist from the Shipley, meanwhile, talked not of an individual visit, but a number of museums/galleries she had visited, as part of one coherent trip:

When I was in London last year, I went to the Tate and the British Library, and the all-in-one sort of visit really, and the National Portrait Gallery. And the British Library had quite a detailed exhibition on Henry VIII, as did one of the other galleries; I think it was the Tate. So it was a sort of Henry VIII theme, because the National Portrait Gallery has a lot of Tudor things in it. The V&A also has a Tudor room actually. So I had a sort of Henry VIII, Tudor, kind of trip to London, which I thoroughly enjoyed (Shipley4).

She bridged a number of visits through their common themes: the Tudors and in particular Henry VIII.

Strong emotional responses, as previously noted, were one of the more controversial characteristics of the dual model, with a number of the 'novice' users displaying such reactions in spite of their suggested positioning on the scale. However, virtually all of the 'competent' users did provide evidence that they had such responses with regards museums/galleries. The male, 27 year old, science teacher remembered a previous visit with a mixture of emotions:

Excited to be doing what I was doing, sad that it wasn't very interesting (NV6).

Whilst the female, 65 year old, former doctor was effusive in her praise of the Stanley Spencer gallery, summing up that:

It had made such an impression on me (Laing1).

The female, 55 year old, pharmacist, spoke often of the emotional responses she had when visiting galleries and museums:

But I love going to galleries, and looking at other people's work, and learning to appreciate visual things (Shipley4).

They've got an exhibition on there about the holocaust and the ghetto in Łódź, which is extremely moving (Shipley4).

I actually like to get emotion out of a picture (Shipley4).

In all these cases museum/gallery visiting was connected, in the minds of these individuals, with emotional reactions. Whether 'excited,' 'saddened,' 'impressed,' or 'moved' they all utilised emotive language to describe their responses.

The penultimate characteristic which I shall discuss in this section relates to individuals' adherence to guidelines: Dreyfus suggested that those at a lower level of skill would follow guidelines, maxims and rules, whilst experts, making decisions intuitively, would no longer rely on such mechanisms (1981). Again, there was a mixture of responses – reflecting the fact that although I have grouped these participants as 'competent' they actually inhabit a broad spectrum, ranging from somewhere slightly above 'novice' to slightly below 'expert'. The male, 27 year old, science teacher remarked upon the common 'no-touch' policy of many galleries/museums:

You can't touch it (NV6).

His response (he talked about this being a major negative for him, and as one of the factors which put him off visiting) suggests this is a particular rule he follows, and suggests he was unaware that many institutions do now have some 'hands-on' exhibits.

The female, 65 year old, former doctor, also spoke of conformist behaviour when it came to visiting, outlining how she, and the rest of her group,

followed the guidelines in terms of where they sat to view the Stanley Spencer gallery:

You know, and you have to sort of sit along one side, you know, they go right up to the, it's right up to the ceiling, there's different layers, and then you have to sort of change sides and move (Laing1).

Specifically it is not the following of these guidelines that marks this statement/individual out, but the *conscious* following. She has not acted intuitively in order to seek out the best view of the artworks, but has instead consciously and deliberately followed the recommended maxims.

Similarly, the female, 55 year old, pharmacist from the Shipley discussed consciously seeking out explanations and guidance when visiting galleries, and utilising audio guides in particular:

I do like things explained, so when I go to some of the modern exhibitions and there's no title, and there's no explanation, and it's not obvious what I'm looking at, I find it much harder to get anything out of it, than if I had verbal explanations. So going to a gallery where they've got the, erm, talking commentary, I find extremely helpful, and I always take it. Sometimes it worries me that I listen too much and don't look enough, but that's the way that I get more out of it (Shipley4).

By their nature, controlling your entire route and visit experience, audio guides are one of the least intuitive visit methods and this participant explained clearly how useful they were to her, suggesting that she visited in a much more adherent way when it came to guidelines and rules than some of the 'expert' users did (which will be discussed in greater depth in the following section).

The final point to note, of this section, relates to one example of a participant creating a bridge between her experience and her long-term memory:

So I had a sort of Henry VIII, Tudor, kind of trip to London, which I thoroughly enjoyed. I had also been reading Wolf Hall, which was the Booker Prize last year (Shipley4).

She connected her visiting experiences, across a number of museums/galleries, with a particular event in her long-term memory – the reading of a specific book and an interest in a particular era of history. She

clearly created a conscious bridge between the experience and the memory: according to the dual model a feature of more advanced visiting

This section has attempted to show how a selection of visitors could be categorised as belonging to a group in-between 'novice' and 'expert.' Whilst not all fitting neatly into the 'competent' category I have provided evidence that these participants certainly demonstrated levels of habitus (indicative of cultural capital) and skill acquisition which rose above many of the non-visitors discussed in 9.2.1, whilst not fulfilling enough of the requirements of an intuitive mode of behaviour which will be discussed in 9.2.3. The excerpts selected have not overtly challenged the dual model, but instead been chosen to exemplify how it might be employed in order to understand behaviour. A more critical approach to the model will be taken in section 9.3.

9.2.3 Expert

The final of the three sub-sections dealing with the categorisation of participants, I will discuss here those individuals who could best be described as 'experts' according to the dual model. Although both features of 'competent' users, I will begin by detailing the use of long-term goals and conscious planning by these users, insomuch as it distinguishes them from the lower ('novice') levels of the model.

Regarding the planning of museum/gallery visiting, virtually all of the individuals selected in this category showed evidence of planning before visiting, whether that be to find out what exhibitions/shows are one at a particular location, or to research the logistics of visiting:

Yes, always go on the internet. Find out where it is and when it's going to be on. And hopefully they've got a few little pictures, so you can see what you're going to see. So you've got some idea when you're, normally just go to the local museums (Laing2).

I don't make an effort without knowing what's on (Laing3).

I have been disappointed on occasions, got there and found that the particular thing you went to see isn't there. So it always pays to ring up and check first (Laing3). The latter excerpt, from the female, 68 year old, former banker, providing, at least in part, an explanation for her behaviour – developed, as it is, from experience.

In contrast, the male, 70 year old, former museum director did not always express a need to plan, but instead showed what I would suggest is an even more advanced form of visiting (not directly included in the dual model):

I love just popping into museums, but I've got the luxury of time, and I'm not rushed, I can just go look at a picture if I want at the National Gallery (Shipley1).

His familiarity and comfort with the whole process of museum/gallery visiting enabled him to simply 'pop' in – behaviour which clearly illustrates an intuitive mode of cognition: being able to visit without having to plan (which contrasts with a lack of planning on the part of 'novices' which can instead be put down to an unfamiliarity with museum/galleries and with common practice).

Similarly, the female, 63 year old, former sales assistant talked about selecting where to go on the basis of a combination of handbooks/leaflets and 'local knowledge':

I don't know, I suppose it's local knowledge. You get the handbook and you look through, or just local knowledge. And then if you go to one property you'll pick leaflets up, I pick leaflets up as I go around (Laing4).

Again, as with Shipley1, planning is less of an issue for this participant, because of her pre-existing knowledge base (which allows her to act more intuitively), although picking up leaflets as she 'goes around' is a form of intuitive planning.

Meanwhile, turning attention to the long-term goals these 'expert' participants pursue when visiting, there were a range of responses, ranging from the female, 64 year old, former IT worker's belief that is provides "a lot of inspiration" (Laing2) to the male, 70 year old, former museum director's assertion that "it broadens your horizons a bit" (Shipley2). Education and learning featured strongly for these participants:

And if you're going somewhere and you know that they've got something by an artist that we have here you like to go make a comparison. Or you like to just, just stretch your knowledge a bit as well (Laing3).

We'll get a little bit of education as well, and go and listen to what they have to say (Shipley2).

For the male, 70 year old, former museum director, there was a sense that his long-term goals were heavily rooted in his previous employment:

So I just keep ahead of what's going on in the sector (Shipley1).

Keeping involved one way or another (Shipley1).

Whether searching for education/learning/knowledge, or in order to 'keep ahead of what's going on', the 'expert' individuals were all relatively clear in terms of their assessment of why they visited and they were able to articulate what they looked for when visiting – which clearly extended beyond any one individual visit.

Every single one of the individuals isolated in this section could be described as expressing strong emotional responses as some point during their interviews. These included quotations like "I was totally stunned" and "the pictures looked sensational" from the female, 64 year old, former IT worker (Laing2) and the following excerpt from the female, 68 year old, former banker:

I'm passionate ... and I want everybody else to be as involved with it and to love it as much as I do (Laing3).

Equally the male, 70 year old, former museum director talked about the 'thrill' and 'magic' of visiting a gallery/seeing artworks:

It gives me a great thrill ... they've got a magic which is more than ... they have their own excitement (Shipley1).

Although only a small selection, this type of response was mirrored universally amongst the 'expert' users.

Whilst the characteristics selected so far have shown relatively consistent results – conforming to the expected outcomes of the dual model, there were nonetheless some areas of discrepancy amongst the 'expert' participants. The dichotomy – between a preference for visiting with others or alone – was (as in the previous section) one occasion where this discrepancy came to the fore, with some participants largely describing visiting as a social activity, undertaken with other people:

A group of friends who are interested in art, we'll go places together (Laing2).

I'm saying 'we' because I usually go with my husband (Laing3).

Other participants, in contrast, clearly demonstrated a level of comfort when it came to visiting alone:

So, I went to York on my own, on the train (Shipley2).

I'm quite a solitary person (Shipley1).

But I tend to go to things on my own because ... I don't have any friends that share my passions and interests and I'd rather go by myself that with somebody that, oh well they aren't really interested and they're sort of trailing round (Laing4).

The latter quotation, from the female, 63 year old, former sales assistant, echoing the sentiments of the female, 55 year old, pharmacist: who talked about the distractions of visiting with people who aren't as interested as she is (Shipley4).

Adherence to guidelines/rules has been mentioned before as a feature of lower-level visiting behaviour, and the evidence from these participants was that, generally, they were not as restricted and they were able to act intuitively when it came to museum/gallery visiting. The female, 64 year old, former IT worker echoed the male, 70 year old, former museum director (Shipley1) in terms of an ability to visit without planning or forethought:

Well sometimes I just wander in, I've got a spare half hour, so I wander in and see (Laing2).

The same participant went on to discuss the church-like atmosphere of galleries (showing an awareness of rules/guidelines in the process) and how she likes to challenge this:

Galleries can get very much like churches, where people are frightened to go into them, because it is a don't-touch policy, which is fair enough, and people are intimidated. And if you don't speak the language of art it can be quite difficult. If I'm busy-bodying round as I quite often am, and people are looking a bit scared, if you just mention, 'oh, did you notice such and such,' and they sort of light on it and it makes a whole new dimension (Laing2).

Not only did she show that she did not have to rely on guidelines/maxims when visiting, but she actually acted in order to help others (presumably those who would be considered belonging to a lower-level/having less experience) gain confidence, feel more at ease and, subsequently, potentially advance up the scale in terms of the dual model.

Both the female, 63 year old, former sales assistant, from the Laing, and male, 70 year old, former museum director from the Shipley displayed a preference for visiting at their own pace, without being constrained by institutional interpretation:

I'm not really keen on guided tours; I like to go round at my own pace (Laing4).

I like minimal interpretation; I like to be able to see a lot of stuff (Shipley1).

I don't like to have to read a lot of labels during the show ... I can understand people that need labels, that need audio-visual, need guidance, need apps, need all these sorts of things to help them. And I respect their purpose, it's good but it's not necessarily for me (Shipley1).

Again, in the last quotation, the participant showed awareness of others – noting how important interpretation (guidelines, maxims etc.) can be – but made the point, quite clearly, that this wasn't how he preferred to visit.

Perceiving things holistically represented a key aspect of the Dreyfus and Dreyfus model of skill acquisition (1986) and as such was also incorporated into the dual model. There was evidence that a number of the hypothetical 'experts' did perceive museums/galleries holistically as opposed to a series of disparate objects; the female, 68 year old, former banker raised the issue of funding in relation to the wider museum sector:

> The way funding is going, I mean we're not stupid, we know things are going to be tight for things like museums and galleries and you know, because it's such a shame because they've got such wealth of things to display to people,

particularly locally here, I mean they've got all sorts of stuff in the vaults and they just can't display them (Laing3).

As well as showing an awareness of how funding cuts might affect the sector, she also demonstrated a greater understanding of what that might actually mean for museums and galleries. Meanwhile the for male, 70 year old, former museum director (predictably) regularly talked about shows, exhibitions and galleries holistically (Shipley1), discussing local and national issues which museums/galleries had to deal with and adopting a broad overview of the area.

Creating bridges between experience and long-term memory was raised in the previous section in relation to 'competent' users, and similarly applies to the 'experts' – differentiating them from the lower levels of the model. There were a number of occasions which illustrated this bridging, the female, 68 year old, former banker stating that she often liked to make comparisons between artists:

> And if you're going somewhere and you know that they've got something by an artist that we have here you like to go make a comparison (Laing3).

Visiting for her was often motivated by this desire to make comparisons, which evidently revolves around the whole process of creating links between the present visit and the memory (of related artists). A different form of bridge was evidenced during the interview with the female, 64 year old, former IT worker, who talked about the memories that were 'cued' when visiting:

You know, you can see, my grandma had one of those (Laing2).

It's nice to see things from the past, and nice to see how things from the past look modern, look, I don't mean modern ... contemporary, no not contemporary ... you know: they wouldn't look out of place nowadays (Laing2).

Visiting involved drawing comparisons (as above), but in this case not between different artists, but between historical objects and the contemporary. I would suggest that, here, this form of knowledge-bridge-building helped the participant to take meaning from what she was seeing – placing objects within context (both their own (historically) and the present); the participant utilised codes embedded in her habitus to make sense of objects. The final characteristic of note – an inability to cope with crowdedness – was evidenced through one instance of an interviewee mentioning blockbuster shows and the difficulties created, for him, as a result of the greater number of people visiting such shows:

I hate blockbuster shows, I hate, you know, I go to them out of necessity but I just find it so difficult, to learn anything, and enjoy anything (Shipley1).

Ironically, one of the most 'advanced' users according to the dual model displayed behaviour which characterised 'novices' originally. I would suggest that this is an anomaly rather than being indicative of an inherent problem with the model, although there were few responses which related to this characteristic, so I cannot definitively or reliably argue either case.

In contrast to the previous section, with the majority of 'expert' users the evidence – based upon characteristics drawn from the dual model – was less mixed, giving some credence to the theory that the model might be usable as a tool for evaluating non-formal learning behaviour via an analysis of participant type. This will be explored in greater depth in the following section, which takes the evidence of these three sub-sections (9.2.1, 9.2.2 and 9.2.3) and critically assesses the model's strengths and weaknesses.

9.3 The Dual Model

Whilst the previous section put the dual model into practice and attempted to classify participants according to their 'level' or category, this section takes a more critical approach, assessing its value in terms of understanding non-formal learning and its strengths/weaknesses as an analytical tool. It will culminate by comparing it to the Housen developmental model (see Chapter 4) (DeSantis & Housen 2009) again as an evaluative tool (as opposed to a front-end methodological one, as previously discussed).

To begin with, it is useful to turn to the aims of the entire project once again and question how the model can help understand non-formal/informal learning, and, in order to do so, it is worth returning to Gola's definition of the phenomenon:

Informal learning is often experiential learning, which occurs in a particular context. It can be self-determined, planned, deliberate or conversely unconscious, emotional, random. It often produces change and positive development, which results from reflection and awareness (Gola 2009: 344).

As Gola points out, informal/non-formal learning is contextual, which is reflected in the dual model: inherently a tool which assesses individuals' skill acquisition/cultural capital within specific contexts. The dual model's usefulness centres on its perceived ability to evaluate behaviour across two factors whilst also accounting for the conscious/unconscious properties of nonformal learning.

The model focuses on a bottom-up approach: operating from the perspective of individuals in contrast to the majority of pre-existing models, as noted by Sun et al.:

Most existing models of skill learning are 'top-down' ... they generally assume that individuals learn generic, verbal, declarative knowledge first and then through practice, turn such knowledge into specific, usable procedural skill (Sun et al. 2001: 205).

The same authors went on to say that:

We believe that it is likely that some skills develop prior to the learning of declarative knowledge, with explicit declarative knowledge being constructed only after the skill is at least partially developed (Sun et al. 2001: 205).

The bottom-up approach is a beneficial one, not just because of these assumptions and because of the scarcity of bottom-up models when compared with top-down ones, but also because in the case of this project – interested in individuals and how they learn – it is more useful: directly targeting the relevant parties.

Based upon the previous sections, it is important to consider the strengths and weaknesses of the dual model and its lists of characteristics. Primarily, as has been already suggested, the characteristics relating to emotional response did not seem to resonate with the actual responses given by participants. The dual model originally connected strong emotional responses with higher levels of skill acquisition/cultural capital, whilst, in reality there was little (or no) such trend apparent. Indeed some of the strongest emotional reactions were actually expressed by those who otherwise fell into the 'novice' category.

Generally though, excepting the issue identified above, the majority of other characteristics present in the model did match basic profiles of the participants (whether they were 'novice,' 'competent' or 'expert'). Thus the model allowed for, on a relatively simple level, the division of individuals into relatively coherent levels. It should be noted, however, that not all of the characteristics were tested (owing to a lack of data, or an inability to ascertain people's behaviour through pure verbal reports).

The categorisation of participants into groups such as 'novice' and 'expert' is derived from the model of skill acquisition (Dreyfus & Dreyfus 1986) and such terms were adopted pragmatically; however, it is perhaps the case that in terms of cultural capital – and in terms of the context of museum/gallery visiting – they are not entirely appropriate. The terms used are extremely loaded; in particular, words such as 'expert' imply expertise, whilst the progression from 'novice' to 'expert' implies a kind of holistic 'betterness': a progressing up this scale was not an aim or desire and as such the language used in describing participants could be questioned. The Housen model (discussed later) utilises roman numerals to name stages, which avoids problems such as loaded terms (DeSantis & Housen 2009).

Bourdieu explored cultural capital as a way of characterising divisions along class lines – in contrast this model attempts to use cultural capital to differentiate behaviour according to different principles, formerly it could be suggested that an interpretation of Bourdieu would infer that "the idea that tastes are group-specific in nature implies that there is strong similarity between the cultural products and practices members of a specific social class prefer" (Verdaasdonk 2003: 358) which is a questionable stance. Bourdieu offers the explanation that habitus coordinates tastes at an unconscious level (1984):

He supposes that the sense of 'cultural legitimacy' it transmits ensures that the homology between the cultural status of a product and the social status of its potential consumer is observed by all members of a given social class (Verdaasdonk 2003: 360).

However, instead of becoming preoccupied with social class, the dual model instead focuses on individuals and analyses their behaviour as individuals. This study is too small to widely extrapolate out results, but many of the non-visitors, who were subsequently classed as 'novices' possessed university degrees, whilst some of those who fell into the higher categories had formerly held traditionally working class jobs.

Based upon the descriptors identified by Chan and Goldthorpe (2007), I incorporated cultural consumption into the dual model, suggesting that the further up the scale participants were, the greater their range of cultural consumption. Whilst not directly using the terms 'inactive,' 'paucivore,' or 'omnivore' (ibid.) these were nonetheless the foundation for this aspect of the model. In practice, however, amongst the individuals involved in this study, there was no evidence that this type of categorisation was effective. As Wuggenig points out, both the original *Taking Part* study on which the Chan and Goldthorpe work was based (DCMS 2007) and their interpretation of this study, was flawed:

Since any information of this kind is lacking, the category of omnivores does not refer to those who combine an interest e.g. for Young British Art with an interest for landscape painting of the Barbizon school; visits of Tate Modern with visits of Blockbuster Films; or a taste for the late Renoir, with a taste for Duchamp's ready mades. It rather depicts those who often go to Museums (of any kind), are visiting art exhibitions (of any kind), are attending cultural festivals (of any kind), are interested in 'events' with electronic art and/or video art, and – with a lower probability – are also going to craft exhibitions (Wuggenig 2007: 313).

Although focusing here on omnivores, the same can be said of paucivores, who – through a lack of information and a relatively simple base data set – can only be extremely loosely described. In reality, when it came to interviewing participants about their leisure habits there appeared no consistent patterns; many of the non-visitors, for instance, attended concerts,

went to the cinema or undertook art/craft activities. Partly this can be attributed to the relatively small-scale nature of this study (making it difficult to identify trends), although this type of result is also coherent with a number of larger studies which showed that the rather basic categorisation of the paucivore/omnivore model is a fallacy, and instead these broad terms encompass a range of "different guises" (Berghman & van Eijck 2009: 362). As Ollivier et al. summarise:

We argue that there is no such thing as a single and coherent cultural category which could be referred to as 'omnivore' (Ollivier et al. 2009: 470).

Introduced in Chapter 4, the Housen Developmental Model (DeSantis & Housen 2009) provided a counterpoint to the dual model created for this project and, although ruled out in the initial stages of the research, it is useful to draw further comparisons between the two at this stage.

In particular, there are a handful of direct comparisons that can be made based upon the descriptors used by DeSantis and Housen and excerpts from participant interviews in this project. One of the advanced stages of the Housen model was described as follows: "interpretive viewers seek a personal encounter with a work of art" (DeSantis & Housen 2009: 11) and "each new encounter with a work of art presents a chance for new comparisons, insights, and experiences" (ibid.) which can be compared with the response of the female, 68 year old, former banker, when she noted that "you like to go make a comparison" (Laing3).

Meanwhile, at the highest level of the model "a familiar painting is like an old friend who is known intimately, yet full of surprise, deserving attention on a daily level but also existing on an elevated plane" (DeSantis & Housen 2009: 11) which was directly echoed by the female, 63 year old, former sales assistant from the Laing, who said that visiting a particular National Trust property was "like visiting old friends ... you can always spot something different, some detail in the paintings in the hall" (Laing4).

Furthermore, the Housen model suggests that at this most advanced level "memory infuses the landscape of the painting, intricately combining the personal and the universal" (DeSantis & Housen 2009: 11). Similarly the female, 64 year old, former IT worker spoke about personal memory and the wider position objects took in the world: "it's nice to see things from the past and nice to see how things from the past ... wouldn't look out of place nowadays" (Laing2).

The similarities identified between the dual model and the Housen developmental model do suggest that the latter might be a beneficial tool in some respects, particularly if it were to be adapted so as to become applicable to museum/gallery visiting more widely (as opposed to its current status as a means of understanding/evaluating the viewing of artworks).

9.4 Friends vs. Non-Users

The penultimate section of this chapter revolves around the two distinct groups of individuals selected to be interviewed as part of the data collection aspect of the research: those belonging to Friends groups and those who described themselves as non-users. This section will compare the responses of participants according to their overarching group and question whether they can be polarised as distinctly different.

Generally, analysis of the research based upon the dual model (see above) did show that the majority of non-users could be described as 'novices' whilst those belonging to Friends groups fell into higher categories. There was, however, some overlap and some participants (from different groups) were not entirely separable in terms of their positioning on the dual model.

One of the drawbacks of the research was that it was not able to look at participants longitudinally – in order to evaluate how people's position/level might change over time. This would be one of the chief aspirations for future research into the area, in particular to test out the hypothesis that non-users are not inherently different, and through exposure to museum/gallery visiting would display characteristics akin to 'competent' or 'expert' users.

It is worth comparing the results of this project with other studies which have explored how different visitors behaved in museums/galleries. Firstly, the RCMG *Making Meaning* study broke visitors down according to their visit plans, which are described in the table below (Figure 33).

Visit Plan	Description
Open Plan	Wanted to "see it all", made their plans "as they went along."
Flexible Plan	Had plans but would revise them if they saw something "that attracted their interest."
Fixed Plan	Planned their visit well in advance and more meticulously, but nonetheless could change to see new exhibit/exhibition.

Figure 33: Visit Plans (RCMG 2001b: 11).

The RCMG study found that visitors fell into one of these categories largely according to their level of visiting experience, with first-time visitors generally adopting 'open plans;' visitors who had been before but were not regulars following 'flexible plans;' and regular visitors generally following 'fixed plans' (ibid.). The authors of the study clearly found links between levels of prior visiting and behaviour, which mirrored my own results (although in each case different behavioural outcomes were focused upon).

Meanwhile, Hekkert and van Wieringen found that "due to learning and experience, experts develop more art-specific cognitive models or categories that influence the perception and evaluation of art" (1996: 129), whilst:

> For inexperienced viewers, these models are an extension of everyday experience and, therefore, tell them that a work of art should be pleasurable and familiar. Experts' models, however, might be characterized by a critical attitude to traditional art styles like post-impressionism, in favour of more novel and challenging ways of painting (Hekkert & van Wieringen 1996: 129).

This approach to inexperienced/expert viewers, however, did not entirely match my own results; which found that most of those participants who fell into higher categories (according to the dual model) often drew on the connections between artworks and everyday experience when it came to interpreting art. This perhaps reflects an issue with my own use of the

descriptor 'expert' as opposed to suggesting that Hekkert and van Wieringen's approach is inherently flawed.

As was hypothesised at the outset, those belonging to Friends groups did generally fall into higher categories on the dual model. Association with the arts represents a way of acquiring the "knowledge and familiarity with styles and genres that are socially valued and that confer prestige upon those who have mastered them" (DiMaggio 1986: 43) and resultantly, members of Friends groups should be expected to possess certain types of habitus, as Glynn et al.'s research suggested:

> In general, this research suggests that the membership decision is predicated on the affiliation purchased with membership: sociological perspectives suggest that affiliation with an art museum may secure social credibility or cultural distinction, while psychological perspectives indicate that museum affiliation may enhance one's identity or self-esteem through the prestige membership confers (Glynn et al. 1996: 261-3).

The research carried out as part of this project largely showed that nonusers and more advanced users could be identified as adopting different behaviour according to the dual model, however it was harder to assess whether this difference was an inherent one or purely as a basis of a lack of exposure. Non-formal learning is clearly pursued in different ways by different groups, but future research would necessarily incorporate longitudinal elements in order to identify whether this difference was rooted in an individual's psyche or was changeable based upon their museum/gallery exposure.

9.5 Discussion

This final section briefly assesses the dual model in its entirety and suggests how it might be adapted for future use. It also focuses on the role played by cultural capital in the model, and highlights the potential for an approach which instead utilises habitus as one of the key guiding principles.

As a tool for understanding and evaluating non-formal learning, the dual model proved an effective methodological resource, helping to structure the research that was carried out (in particular identifying the need for groups at

either end of its scale, and helping develop aspects such as the interview guide) but was perhaps less successful as an analytical tool, in terms of the original project aims. Whilst helping to conceptualise where participants might sit relative to levels of skill acquisition and cultural capital it was somewhat onedimensional analytically and in reality, when considering how people learn nonformally, other frames of reference (such as field theory) have proved more useful (see Chapter 6).

As the embodiment of cultural capital, habitus – "the third of Bourdieu's major concepts, without which the concepts of field and capital (at least as he deployed them) make no sense" (Emirbayer & Johnson 2008: 2) – could be a more appropriate substitute for capital in the dual model. "By habitus, Bourdieu means the relatively durable principles of judgment and practice generated by an actor's early life experiences and modified (to a greater or a lesser degree) later in life" (Emirbayer & Johnson 2008: 4); habitus is perhaps a more useable and more concrete phenomenon, with a more direct application to the behaviour of museum/gallery visitors:

I envisage habitus as a deep, interior, epicentre containing many matrices. These matrices demarcate the extent of choices available to any one individual. Choices are bounded by the framework of opportunities and constraints the person finds himself/herself in, his/her external circumstances (Reay 2004: 435).

This definition of habitus encompasses the role played by cultural capital in terms of demarcating the framework within which choices can be made, but more directly relates to the actual choices people are making, behaviourally, in context. Although there is perhaps less research which directly focuses on habitus (which, in part, influenced the original decision to utilise cultural capital in the dual model), a future tool/model which aimed to investigate non-formal learning might build upon the dual model by incorporating habitus as the counterpoint to skill acquisition.

The next (and final) chapter of the thesis draws together a number of conclusions, as well as summarising the entirety of the project. It isolates

potential future research streams and pinpoints what the next steps are in terms of the overall research area.

Chapter 10 – Conclusions

10.1 Introduction

The culmination of the thesis, this chapter draws together conclusions from the project, based upon the four preceding discussions and focused on the original research aims.

In order to properly ground the conclusions in the original aspirations of this research it is important to refer back to the broad aims and objectives and the research question which were adopted from the outset of the project. Principally the intention of this work was to:

> Investigate how non-formal learning takes place in museums and galleries: specifically it aims to understand it better in context and to explore the differences and characteristics of non-formal learning between different groups of people.

This was to be structured by asking questions such as 'what is nonformal learning within the context of museums and galleries?'; 'how do visitors to these institutions learn non-formally?'; and 'how can such learning be evaluated and studied?'

More specifically a series of aims and objectives were outlined which, it was envisaged, would help achieve the project goals; it is useful to set out the four aims which were originally listed in Chapter 1:

1. To define non-formal learning, both generally and in context, by utilising current theory drawn from a range of disciplines.

2. To identify and, if necessary, develop, a suitable methodology in order to study non-formal learning in museums and galleries.

3. To explore the possibility that different people experience and undertake non-formal learning in different ways.

4. To investigate how non-formal learning and non-formal learning experiences affect the act of visiting museums and galleries.

These aims were utilised to organise the project and subsequently the thesis, primarily they contributed to the development of the literature review and methodological approach (as well as informing the general direction of the analysis/discussion). Because grounded theory methods were employed in order to make sense of the results of data collection the original aims/objectives did not directly cover the direction of the latter stages of the project. Instead, the broader questions asked above acted as framing devices, whilst data was analysed according to emergent themes (all of which will be summarised in the next section in terms of the ways in which they address these broader questions regarding non-formal learning in museum/gallery contexts).

At the outset of this research project I noted that at least part of the inspiration for pursuing the topic had been derived from the unsuitability of the Generic Learning Outcomes as a tool to understand and evaluate non-formal learning. Carrying out the project has not changed my views on this framework and has, if anything, further confirmed my belief that non-formal learning – and especially the implicit components of non-formal learning – cannot be sufficiently understood or 'evaluated' by simply asking people what they have learnt. Instead, as the broad group of recommendations later in this chapter attest to, I suggest that museum and gallery researchers should explore other methods, potentially derived from those utilised here, in order to investigate this complex phenomenon.

To address each individual aspect of this thesis, beginning with the literature review, it was decided to focus attention across two key areas, firstly non-formal/informal learning itself (which was the focus of Chapter 2) and secondly the memory and a psychological approach to learning (which Chapter 3 was devoted to). The former of these aimed to synthesise existing literature around the topic and find a consensus in terms of how non-formal learning might best be defined. Eraut's typology of the phenomenon (2000) provided an influential starting point, which was supplemented by a host of other sources in order to both describe the current field of study, and present a coherent approach, which could then be adopted for the remainder of the thesis. The latter of the two review chapters, meanwhile, drew from a hugely diverse range of disciplines in order to characterise how non-formal learning might take place, socially, psychologically, and physiologically. The memory formed a

crucial part of the approach, which reviewed literature relating to a wide range of processes and suggested ways in which non-formal learning might be conceptualised.

Methodologically, a further two chapters were devoted to the development of a tool – which was subsequently used to help structure practical data collection – and the logistics of this study. The dual model was the product of a combination of the Dreyfus and Dreyfus model of skill acquisition (1986) and a broad spectrum of literature relating to cultural capital: much of which was composed of previous research studies which explored cultural capital amongst museum/gallery visitors. Rooting this model firmly in actual research data was crucial to its integrity, complementing/being complemented by a strong theoretical framework.

The four discussion chapters which formed the core of the thesis focused on issues which had been identified from the data itself, concentrating on field theory, memory, learning and, finally, a chapter which explored the role played by – and the usefulness of – the dual model, as a tool for understanding non-formal learning. It is the products of these chapters which will form the basis of the next section (10.2) dealing with the direct outcomes of the research. There then follows a section which addresses the limitations associated with the approach taken in the project (10.3), whilst section 10.4 outlines the contribution this project has made to the field; in both a practical and theoretical sense. The final section makes recommendations for future research which may be able to build upon and develop the findings made here (10.5).

10.2 Research Outcomes

This section will detail the outcomes of the research, drawn from the previous four discussion chapters, synthesised in order to coherently present a response to the original research questions.

Rather than simply re-iterate the chapter conclusions, this section is instead broken down into some of the critical aspects of non-formal learning, providing an opportunity to discuss the individuals who undertake the process

(10.2.1); how non-formal learning takes place (10.2.2); and why people learn non-formally within such contexts (10.2.3). All of the sub-section headings are prefaced with the concept of 'understanding non-formal learning', which was the primary goal of the research.

10.2.1 Understanding Non-Formal Learning: Who?

The title of this sub-section is perhaps somewhat misleading as, it is suggested, everyone learns non-formally in some contexts/situations: it is an inevitable and ubiquitous feature of life. Instead, I will focus here on the differences that can be identified between different types of users, questioning whether people who learn non-formally do so in ways which are inherently different (according to factors such as cultural capital).

This study focused on two distinct groups of people: a selection of individuals who identified themselves as non-users/visitors; and people who belonged to one of two gallery Friends groups. Compared using the dual model, across the functions of cultural capital and skill acquisition, there were clearly differences between these two groups in terms of their behaviour in relation to museum/gallery visiting. The majority of non-users could be classified as 'novices' according to the model, which is to say that they did not possess the cultural capital required to actively participate in museum visiting and had not acquired the relevant skills which would allow them to operate in such environments. Meanwhile, those belonging to Friends groups generally fell into higher categories, showing a greater range of the skills one might associate with visiting and displaying evidence of varying forms of relevant cultural capital which enabled them to interact with the field (something that will be covered in greater depth in 10.2.3).

It was not possible to classify the differences between non-users and more regular users as inherent or otherwise: individuals may have been predisposed to behave in certain ways, or it may be that it simply reflected their current state. Whether non-visitors would start to exhibit characteristics from more advanced positions on the dual model could only be properly tested via a longitudinal study, which will be further discussed in section 10.5.

10.2.2 Understanding Non-Formal Learning: How?

How people learn non-formally is one of the major problems within the research area, with potentially wide-reaching applications for the sector. Although this project aspired to answer this question, it is unfeasible to suggest that this could have been achieved with any certainty given the small-scale nature of the study. However, by taking an approach derived from psychology and focusing on factors such as participants' use of nostalgia/reminiscence, as well as their memories (in particular their memory failings), it has been possible to present potential factors which might affect how people learn non-formally.

To take the example of reminiscence/nostalgia firstly, previous research has shown that individuals often make use of reflection on the past in order to draw meaning from their visit (e.g. RCMG 2001a/b) and the results of my work backed this position up – amongst those participants who belonged to Friends groups. I posited that non-visitors were less likely to display reminiscence behaviour because they had less instances of actual museum/gallery visiting to discuss in the first place. Those individuals who did reminisce and evidence nostalgic reactions to a particular museum/gallery display/exhibition often talked about how they had either understood, or helped others to understand, such things by relating them to their past. The example which I have often referred to as best illustrating this is of the female, 64 year old, former IT worker from the Laing Friends group (Laing2) whose memories of owning certain objects seen on a museum visit helped her to interact with her granddaughter, with whom she was visiting.

There were a host of examples of participants forgetting things when discussing their museum/gallery visiting experiences, which I have suggested could help such institutions better understand what people both remember and forget and why they do so. In particular it was found that in this study, the non-visitors were more likely to forget as a result of poor encoding, whilst the regular visitors (belonging to Friends groups) were more likely to suffer from 'interference' ("new information encoded into memory that uses the same neural parts ... interferes with memories for the older information" (Ashcraft & Radvansky 2010: 210)). This was perhaps to be expected, since for many of the

non-visitors, the few visits they had been on were initiated by others – they had not chosen to go of their own accord – and resultantly they were less likely to be making an effort/paying attention on these visits than someone who truly wanted to go. Whilst, in contrast, the more advanced users were in many cases retired, and devoted a great deal of time to visiting museums and galleries, all over the world. For many their leisure time was characterised by museum/gallery visiting and as such a sense of confusion regarding the vast range of visits undertaken by many should not be a surprise.

Michael Eraut's influential typology of non-formal learning (2000) broke the phenomenon down into three distinct parts: deliberative learning, reactive learning and implicit learning. Amongst other things this project attempted to highlight instances of these three learning types in order to test out Eraut's conceptualisation.

Regarding the first two types of learning identified by Eraut – deliberative and reactive – this project found it impossible to draw a definitive line between them, instead preferring to classify them both under the heading 'explicit' learning. That is not to say that they do not exist as separate phenomena, but instead that they are perhaps markers on a continuum, along which examples of explicit learning fall. Implicit learning, meanwhile, although difficult to identify at times, was pinpointed in a number of cases, and was clearly distinct from other (more copious) examples of explicit learning. This backed up neuroscientific research which has shown that explicit learning and implicit learning take place in distinct, different, parts of the brain (Sternberg 1999: 176).

There remains the question of whether implicit learning is characterised by an unconscious learning process, or simply results in knowledge which is tacit. Although there has been considerable debate in the literature, I would suggest that both instances could be classified as implicit without compromising the validity of the term. Indeed, given the difficulties associated with identifying unconscious learning/knowledge at all, it is perhaps not

conceivable at this stage that the two could be properly and confidently differentiated.

10.2.3 Understanding Non-Formal Learning: Why?

The final part of this series of sub-sections is concerned with one of the more difficult aspects of non-formal learning, why do people undertake it? Partly this can be explained through the sometimes automatic nature of implicit learning (Andrade 2005); however this is not wholly sufficient, given that many forms of non-formal learning (and in many situations) are conscious (at least in part). Resultantly, field theory was adopted in Chapter 6 in order to help explain why people behaved in the way they did and to relate habitus and cultural capital to practice.

Various levels of engagement were proposed which ranged from 'antipathy' and 'opposition,' through 'questioning' and 'negotiation,' to 'dominance.' Each of these positions represented a different type of engagement with the field of art, which went some way to explain (or at least to suggest explanations for) why people behaved in the way that they did.

The non-visitors in the study largely fell into one of two categories: either they were antipathetic towards art and gallery/museum visiting, or they had relatively strong oppositional (and at times almost antagonistic) views). The former often used words such as 'uninterested' and 'bored' to describe their views towards art and their experiences of visiting, and could be characterised as being dispossessed of an awareness of the field itself (Bourdieu 1993). The latter group, in contrast, had subversive opinions which suggested that they did interact with the field, but did so in order to challenge dominant positions.

Meanwhile the regular visitors largely occupied the positions described above as either 'questioning' or 'negotiating.' The majority of these individuals found contemporary art confusing/difficult to comprehend and yet continued to frequent galleries displaying such work. These participants either questioned the field or attempted to negotiate a position within it. They were unable to understand or access dominant positions within it, but still attempted to

engage on some level, which Swartz described as a form of 'succession' behaviour (1997).

The final position hypothesised, that of 'dominance' may have applied to one of the individuals in the study (although this could be debated), but was largely included to show that such positions do exist, and are incredibly important – given the power that dominant forces within the field are able to wield, and given that for many these positions of dominance explain their behaviour: whether it be motivated by a desire to achieve such a position, or to challenge it.

10.3 Research Limitations

This section will outline some of the limitations of the research; both in terms of what was achievable practically and methodologically, and also what can be established analytically. I will preface this discussion by suggesting some of the difficulties with the research area itself and some of the inherent limitations that any study of non-formal learning would undoubtedly encounter.

In Chapter 1 I made it clear that non-formal learning was a difficult phenomenon for researchers to grapple with and over the course of this project it has become clear that some aspects of the topic are underresearched because of these difficulties. Kisiel and Anderson noted that there were problems in simply establishing that learning had taken place when studying non-formal/informal learning:

The complexity of the informal learning environment, of learners' engagement within that environment, and of the process of meaning-making itself all make it difficult to see whether, or to what extent, learning happened (Kisiel & Anderson 2010: 183).

Going on to express the breadth of the task through the multitude of variables that shape said learning experience (including "prior experiences, later experiences, time spent, attention, presence of others, presence of staff, interest, and opportunity" (ibid.)).

Furthermore, one of the key aspects of non-formal learning – implicit learning – refers to learning which either takes place unconsciously, or results

in knowledge of which the participant is not aware of. Clearly, either of these scenarios presents huge challenges for a researcher and whilst Chapter 8 did attempt to investigate implicit learning and propose some conclusions regarding the process, this thesis in isolation was never likely to be able to present concrete outcomes regarding the implicit facets of non-formal learning.

Methodologically this study suffered from the pragmatic needs of both time and money and was necessarily relatively small-scale in terms of its reach. One of the major limitations in terms of the approach adopted related to the lack of participants involved in the research or rather, more specifically, the lack of variety amongst these participants. Whilst the study was comparable to many others in terms of the number of subjects involved, being only able to interview people from two groups (at polar ends of the dual model scale) did place some limit on what could be inferred from the research. Additionally, many of those belonging to the groups fell into a very specific type, particularly among the members of Friends groups; who were largely retired and over 60 years of age. Whilst a vast number of people would need to be involved for the study to be able to draw conclusions relating to wider populations, more validity would have been achieved through the inclusion of a broader range of subjects, drawn from a variety of backgrounds.

A further restriction placed upon the project concerns the lack of a longitudinal aspect to the methodology employed, in terms of the contact with participants. The dual model, it was hypothesised, would show how people's behaviour changed depending on their level of skill acquisition/cultural capital in terms of museum/gallery contexts. However, it was not possible to test this theory out based upon, essentially, snapshot interactions with individuals (who were each interviewed only once). An unavoidable limitation of the project (given the costs (financially and temporally) involved when carrying out one-off interviews, coupled with the difficulties associated with retaining participants for multiple sessions), this did mean that the true potential of the dual model could not be fully tested and instead was utilised more beneficially as a methodological tool (forming the basis of the interview guide) than an analytical one.

Semi-structured interviews were originally selected as the most straightforward means of obtaining relevant information for the project, and indeed so they proved to be. However, although the best approach here, they were not perfect and there were some boundaries to what could be achieved purely through such interviews. As mentioned above, non-formal learning and, in particular, implicit learning is a concept that can be difficult to verbalise, hence relying solely on participant's verbal reports inevitably comes with some drawbacks. Robbed of an opportunity to compare such reports with direct observation of visitors to museums/galleries did mean that at times the study was somewhat one-dimensional, which will be further discussed in terms of recommendations for future research (10.5).

10.4 Contribution

The penultimate section of this chapter will detail the contributions made by this research: firstly in terms of the theoretical understanding of nonformal learning, and also in terms of what can be taken from the project practically, by institutions with a direct interest in this branch of learning.

At the outset of this thesis I made it clear that one of the primary aims would be to define non-formal learning, utilising existing literature to form a coherent interpretation of the term which could be adopted not merely for the duration of this project, but potentially more widely in the area. Existing theoretical undertakings were conflicting in their approach and as such it has been important to clarify what is meant by non-formal learning and also to separate out the term from its occasional synonym 'informal' learning. It was decided to adopt an expansive definition of the term, rather than attempt to limit it, encompassing a number of scenarios and processes and mainly defining it through its opposition to formal learning. Essentially, therefore, following Eraut's lead and viewing it as a phenomenon *not* featuring the following characteristics: "a prescribed learning framework"; "an organised event or package"; "the presence of a designated teacher"; "the award of a qualification"; and "the external specification of outcomes" (Eraut 2000: 12) but otherwise broadly covering all other learning experiences.

Furthermore, a direct outcome of the research was to verify the typology of non-formal learning proposed by Eraut in his seminal paper on the topic (2000). Eraut broke non-formal learning into three composite parts: deliberative, reactive and implicit forms and it was clear that these definitions broadly encompassed the processes taking place. Through my own research it was difficult to split the first two (deliberative and reactive) types of learning and as such I classified them, together, as explicit learning, which could then be contrasted with implicit learning. Owing to the small number of participants in this study it may indeed be the case that across a wider population it would be easier to differentiate between examples of people learning deliberately/reactively and as such I do not recommend that Eraut's typology be altered drastically; instead I would suggest that it be modified slightly to take into account the fact that those processes defined under the heading of 'explicit learning' are related and are wholly distinct from the implicit (but not necessarily from each other).

As well as the theoretical contribution, methodologically there were few clear routes forward before embarking on the project, and as such it has been a key aim to produce a valid and reliable method concerning the investigation of the phenomenon. The creation of the dual model of skill acquisition and cultural capital has attempted to do this, and through its use in the methodology of this research it has been shown to be a useful tool which (with further development, to be outlined in the next section 10.5) might be adapted and adopted by others wishing to carry out research into non-formal learning in context.

One of the major achievements of this research has been the combination of psychological approaches to learning and memory with an otherwise traditional social/cultural studies approach. By drawing on the field of psychology and, in particular, cognitive psychology, it has been possible to introduce new perspectives to the field of museum studies, whilst also adapting traditional laboratory experiments in order to apply their theoretical contribution to a study firmly rooted in context. Understanding people's behaviour in terms of the vast breadth of work that exists in such domains has

allowed for the inclusion of explanations which would otherwise have remained neglected, particularly pertaining to memory studies and an understanding of why people remembered/forgot certain aspects of their museum/gallery visits. Although not a remit of this project, it is hoped that at least the potential of adopting a psychological understanding of the memory may be beneficial for museums and galleries, when it comes to designing displays and exhibitions, as well as targeting specific audiences. I utilised this approach in order to explicate differences between different groups of people the non-visitors/member of (focusing on why Friends groups remembered/forgot things and why there were differences between the two groups) but this body of theory could easily be used to assess exhibition content.

Finally the comparisons drawn between different groups of participants have hopefully begun to suggest ways that people's behaviour might differ and, more importantly, why these differences might occur. As has been said before, the nature of this study, with its limited number of subjects, means that results cannot be extrapolated out, however, as Peräkylä noted, it does offer the option of suggesting possibilities (2004) and providing pathways for further exploration (see 10.5).

10.5 Recommendations for Future Research

I will end the main body of the thesis by making some recommendations for future research, suggesting ways that my own work might be built upon and highlighting some of the most pertinent areas for exploration within the field. These recommendations will begin with methodological suggestions, relating to the further development of the dual model and the use of a wider range of methods when investigating non-formal learning. There will then be some suggestions which centre on theoretical areas for further study, including, inevitably, implicit learning in context, upon which a considerable amount of research could be carried out without exhausting the range of possibilities available. Additionally, the role played by psychology will be addressed and further suggestions for cross-disciplinary research will be identified.

In the methodological section of this thesis the Housen developmental model was considered as a tool but ruled out because of its inherent focus on the moment of interaction visitors had with an artwork. On reflection, and as a result of utilising my own dual model in this research, the qualities of the Housen model may actually transcend this specificity of context and may be adaptable as a methodological tool in future research.

In particular the characteristics associated with each stage in this model and the use of less loaded terminology (DeSantis & Housen 2009) (which moves away from the idea of a 'ladder' to be climbed (e.g. the dual model's inherent implication that the 'expert' level is something to aspire to)) are particularly appealing and I would recommend that future adaptations of the dual model might be influenced by the work of Housen.

The lack of a longitudinal aspect to the research, particularly pertaining to the dual model and a true test of its effectiveness, has been previously highlighted and as such this forms the first recommendation for future research in the area (specifically research which is interested in individuals and differences in behaviour between groups of people). It was hypothesised that the dual model would measure changes in individuals' skill acquisition/cultural capital and how this translated to their behaviour when visiting museums and galleries, however it has been unable to test this aspect of the model out. Subsequently it would be prudent for a study which utilised the model to explore its full potential by incorporating this facet into its research.

Still concerned with the dual model, I would recommend that more research be undertaken in terms of the range of participants involved, which, again, was a limitation that has been previously mentioned in relation to this work. A larger number of subjects, drawn from a wider cross-section of society and backgrounds might enable results to be extrapolated out and might result in some of the possibilities and suggestions proposed here to be either verified or disproved. A wider range of responses might also present further opportunities in terms of grounded theory and in terms of drawing conclusions from the data itself. This proved to be a fruitful source of investigation and was

especially useful given that the research area is relatively formative in nature; as such any study which was able to apply grounded theory methods to a wider data set might uncover a much deeper range of hypotheses and possibilities.

I would advocate the adoption of a more extensive set of methods in any future study of non-formal learning. Whether such studies employ a mixture of methods or whether they concentrate on a singular approach, it would be advisable that they investigate the use of more inventive/innovative approaches in their methodologies.

Understanding the complexities of the informal learning setting requires creative methods for documenting learning (Kisiel & Anderson 2010: 184).

Such 'creative' methods might include visitor observation or tracking; series of interviews; or accompanied visits, perhaps including "thinking aloud" elements similar to those utilised by the RCMG studies of 2001. As well as the integration of methods common within the humanities/social sciences it might also be possible to envisage research including methodological tools currently used widely within psychological studies (e.g. Functional Magnetic Resonance Imaging (fMRI) and Electroencephalogram (EEG) scans are often utilised in order to show which parts of a participant's brain is being used when undertaking activities/tasks). This kind of approach would enable future research to take a broader view of non-formal learning, exploring it in different ways in order to develop more rounded, valid and reliable conclusions (through a combination of data gained in different ways).

It should be remarked, at this stage, that at the outset of the research I suggested that museums and galleries could be treated as broadly related types of institution, which would not necessarily affect the experiences visitors undertook within them. Whilst I believe that the results of this study do not rule out the former approach, there is nonetheless a body of literature which does single out the art gallery as a unique institution (e.g. see Pringle's work on Contemporary Gallery Education (2006)). Although there can clearly be crossovers in terms of the behaviour undertaken within individual institutions, further research should be undertaken in order to establish the primacy of

(contemporary) art galleries (if such a primacy does exist). In particular, preconceived ideas about what a gallery might contain may well affect a visitor's mind-set and approach to visiting and as such impact upon their experience.

Finally, research into the implicit element of non-formal learning, particularly within context, needs to be expanded significantly. Although there exists a significant body of literature on the topic very little of this is from a museological perspective and this should be addressed by combining such existing research with future studies. More widely I would suggest that the field of museum/gallery studies could gain a great deal from psychology and other related disciplines and it is my view that in the future taking a cross-disciplinary approach to cultural/social studies will inevitably become the norm: drawing on existing and on-going research from experts rooted in a range of backgrounds in order to give studies a level of integrity that is at present sometimes lacking.

Appendix

Below is the basic consent form that was used throughout the project and which all participants were required to sign before commencing the interviews. This form had the approval of both my project supervisors and my institution.

PhD Project – Alex Elwick Newcastle University 'Non-Formal Learning in Museums and Galleries'

Thank you for agreeing to take part in this research.

Please read the below document before you agree to take part.

If you have any questions arising from this, ask the researcher before you decide whether to take part. You will be given a copy of this consent form to keep.

Consent Form Newcastle University International Centre for Cultural and Heritage Studies

Research Title: 'Non-Formal Learning in Museums and Galleries'

Researcher: Alex Elwick

Purpose: The purpose of this research is to explore 'non-formal learning' (which is any kind of learning that takes place outside of formal structures like school trips) in museums and galleries.

Method: Up to 40 different participants will be interviewed about their leisure habits and their spare time from August 2010 till August 2011. These interviews will be individual and if there are any questions you do not wish to answer please say so – you are under no obligation to answer everything asked and you may withdraw from the project at any time if you feel uncomfortable.

Outcomes: The purpose of this research is to understand better how people learn when they visit museums and galleries and to hopefully help museums/galleries improve the experience for their visitors.

Continued overleaf.

Confidentiality: Your answers will be recorded digitally and then writtenup. They will never be heard by anyone apart from the researcher and the full interview will never be available in full by anyone else. Excerpts from the interviews may be used in publications or the research thesis – but these will *always* be anonymised – your name will never be used.

Contact: Alex Elwick ICCHS, Newcastle University, NE1 7RU 07841586270, a.r.elwick@ncl.ac.uk

Project Supervisor: Andrew Newman ICCHS, Newcastle University, NE1 7RU 0191 222 7426, andrew.newman@ncl.ac.uk

Signatures:

I confirm that I have read the statement provided for the above research project and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw from the project at any time, without needing to give a reason.

I confirm that my answers can be audio-recorded and that transcribed excerpts can be used in publications so long as they are anonymised.

Name of Participant	Date	Signature
Researcher	Date	Signature
<one and="" copy="" one="" participant<="" researcher="" td="" the="" to=""></one>		

References

- ACE (2010) 'Funding.' *Developing, Promoting and Investing in the Arts in England* [online] available from<www.artscouncil.org.uk/funding> [5 August 2010]
- Adams, M., Falk, J. & Dierking, L. (2003) 'Things change; museums, learning, and research.' In Xanthoudaki, M., Tickle, L. & Sekules, V. (eds.)
 Researching Visual Arts Education in Museums and Galleries, London: Kluwer Academic Publishers, 15-32
- Adey, P., Csapo, B., Demetriou, A., Hautamaki, J. & Shayer, M. (2007) 'Can we be Intelligent about Intelligence? Why Education Needs the Concept of Plastic General Ability.' *Educational Research Review* 2, 75-97
- Allsup, R. (2008) 'Creating an Educational Framework for Popular Music in Public Schools: Anticipating the Second-Wave.' *Visions of Research in Music Education* 12, 1–12
- Anderson, D. & Gosselin, V. (2008) 'Private and Public Memories of Expo 67: A
 Case Study of Recollections of Montreal's World Fair, 40 Years after the
 Event.' *Museum and Society* 6 (1), 1-21
- Anderson, D. & Shimizu, H. (2007) 'Factors Shaping Vividness of Memory Episodes: Visitors' Long-term Memories of the 1970 Japan World Exposition.' *Memory* 15 (2), 177-191
- Anderson, D., Lucas, K. & Ginns, I. (2003) 'Theoretical Perspectives on Learning in an Informal Setting.' *Journal of Research in Science and Teaching* 40 (2), 177-199
- Anderson, D., Nashon, S. & Thomas G. (2009) 'Evolution of Research Methods for Probing and Understanding Metacognition.' *Research in Science Education* 39 (2), 181-195
- Anderson, M. & Bjork, R. (1994) 'Mechanisms of Inhibition in Long-Term
 Memory: A New Taxonomy.' In Dagenbach, D. & Carr, T. (eds.) Inhibitory
 Processes in Attention, Memory and Language New York: Academic Press, 265-325
- Andrade, J. (2005) 'Consciousness.' In Braisby, N. & Gellatly, A. (eds.) *Cognitive Psychology* Oxford: The Open University Press
- Ashcraft, M. & Radvansky, G. (2010) 5th edn. *Cognition* Upper Saddle River NJ: Pearson Education
- Atkinson, R. & Shiffrin, R. (1968) 'Human Memory: A Proposed System and its Control Processes.' In Spence, K. & Spence, J. (eds.) *The Psychology of Learning and Motivation: Advances in Research and Theory* New York: Academic Press, 2, 89-195

- Atkinson, R. (2001) 'The Life Story Interview.' In Gubrium, J. & Holstein J. (eds.) Handbook of Interview Research Thousand Oaks CA: Sage Publications
- Baddeley, A., Eysenck, M. & Anderson, M. (2009) *Memory* Hove: Psychology Press
- Ball, S., Davies, J., David, M. & Reay, D. (2002) "Classification' and 'Judgement': Social Class and the Cognitive Structures of Choice of Higher Education." British Journal of Sociology of Education 23, 51–72
- Banz, R. (2008) 'Self-Directed Learning: Implications for Museums.' Journal of Museum Education 33 (1), 43-54
- Banz, R. (2009) 'Exploring the Personal Responsibility Orientation Model: Self-Directed Learning within Museum Education.' Conference Proceedings of the Adult Education Research Conference 24-29 [online] available from <http://www.adulterc.org/applications/ClassifiedListingsManager/inc_cla ssifieclassifiedlistin.asp?date=1/1/2009> [4 April 2011]
- Bargh, J. & Chartrand, T. (1999) 'The Unbearable Automaticity of Being.' American Psychologist 54 (7), 462-479

Barker, R. (1968) Ecological Psychology Stanford CA: Stanford University Press

- Becker, G. (1964) Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education New York: National Bureau of Economic Research. Cited in Bourdieu, P. (1986) 'The Forms of Capital.' In Richardson, J. (ed.) The Handbook of Theory and Research for the Sociology of Education New York: Greenwood Press, 241-258
- Becker, H. (1982) Art Worlds Berkeley CA: University of California Press
- Bellamy, K., Burghes, L. & Oppenheim C. (2009) 'Learning to Live.' In Bellamy, K.
 & Oppenheim, C. (eds.) *Learning to Live: Museums, Young People and Education* London: Institute for Public Policy Research, 9-20
- Benner, P. (2004) 'Using the Dreyfus Model of Skill Acquisition to Describe and Interpret Skill Acquisition and Clinical Judgment in Nursing Practice and Education.' Bulletin of Science, Technology and Society 24 (3), 188-199
- Bennett, T., Savage, M., Silva, E., Warde, A., Gayo-Cal, M. & Wright, D. (2009) *Culture, Class, Distinction* Abingdon, Oxon: Routledge
- Benton, T. & Cecil, C. (2010) 'Heritage and Memory.' In Benton, T. (ed.)
 Understanding Heritage and Memory Manchester: Manchester University
 Press
- Berg, B. (2007) 6th edn. *Qualitative Research Methods for the Social Sciences* Boston MA: Pearson Education

- Berghman, M. & van Eijck, K. (2009) 'Visual Arts Appreciation Patterns: Crossing Horizontal and Vertical Boundaries within the Cultural Hierarchy.' *Poetics* 39, 348-365
- Berry, D. (1996) 'How Implicit is Implicit Learning?' In Underwood, G. (ed.) Implicit Cognition New York: Oxford University Press
- Besner, D., Stolz, J. & Boutilier, C. (1997) 'The Stroop Effect and the Myth of Automaticity.' *Psychonomic Bulletin & Review* 4 (2), 221–225
- Bigge, M. & Shermis, S. (2004) 6th edn. *Learning Theories for Teachers* Boston MA: Pearson Education
- Bjørnåvold, J. (1997) 'Assessment of Non-Formal Learning: The Quality and Limitations of Methodologies.' *European Journal of Vocational Training* 12 (3), 52-67
- Bjørnåvold, J. (2000) *Making Learning Visible* Thessaloniki, Greece: CEDEFOP -European Centre for the Development of Vocational Training
- Bloom, B. (1956) Taxonomy of Educational Objectives New York, Longman
- Boeiji, H. (2010) Analysis in Qualitative Research London: Sage Publications
- Bolger, N., Davis, A. & Rafaeli, E. (2003) 'Diary Methods: Capturing Life as it is Lived.' Annual Review of Psychology 54, 579–616
- Bonham, L. (1989) 'Self-Directed Orientation toward Learning: A Learning Style.' In Long, H. (ed.) Self-Directed Learning: Emerging Theory and Practice Norman OK: Oklahoma Research Centre for Continuing Professional and Higher Education, University of Oklahoma
- Bourdieu, P. & Darbel, A. (1997) *The Love of Art: European Art Museums and their Public* Oxford: Polity
- Bourdieu, P. & Wacquant, L. (1992) An Invitation to Reflexive Sociology Chicago: University of Chicago Press
- Bourdieu, P. (1984) *Distinction: A Social Critique of the Judgement of Taste* Cambridge MA: Harvard University Press
- Bourdieu, P. (1986) 'The Forms of Capital.' In Richardson, J. (ed.) *The Handbook* of Theory and Research for the Sociology of Education New York: Greenwood Press, 241-258
- Bourdieu, P. (1990) In Other Words: Essays towards a Reflexive Sociology Cambridge: Polity Press
- Bourdieu, P. (1993) 'Outline of a Sociological Theory of Art Perception.' In
 Bourdieu, P. *The Field of Cultural Production: Essays on Art and Literature* New York: Columbia University Press, 215-237

- Bourdieu, P. (1996) *The Rules of Art: Genesis and Structure of the Literary Field* Cambridge: Polity Press
- Bourdieu, P. (1998) *Practical Reason: On the Theory of Action* Stanford CA: Stanford University Press
- Bradburne, J. (2004) 'Museum Time Bomb: Overbuilt, Overtraded, Overdrawn.' The Informal Learning Review 65 (2)
- Braisby, N. & Gellatly, A. (eds.) (2005) *Cognitive Psychology* Oxford: The Open University Press
- Briseňo-Garzón, A., Anderson, D. & Anderson, A. (2007) 'Adult Learning
 Experiences from an Aquarium Visit: The Role of Social Interactions in
 Family Groups.' *Curator* 50 (3), 299-318
- Britt, D. (1999) *Modern Art: Impressionism to Post-Modernism* London: Thames & Hudson
- Brockett, R. & Hiemstra, R. (1991) *Self-Direction in Adult learning: Perspectives on Theory, Research, and Practice* New York: Routledge
- Brockmeier, J. (2002) 'Remembering and Forgetting: Narrative as Cultural Memory.' *Culture and Psychology* 8, 15-43
- Brody, M. (2005) 'Learning in Nature.' *Environmental Education Research* 11 (5), 603-621
- Bryman, A. (2008) 3rd edn. *Social Research Methods* Oxford: Oxford University Press
- Buchner, A. & Wippich, W. (1998) 'Differences and Commonalities Between
 Implicit Learning and Implicit Memory.' In Stadler, M. & Frensch, P. (eds.)
 Handbook of Implicit Learning Thousand Oaks CA: Sage, 3-46
- Bull, R. & Waddington, P. (2007) 'Cognitive Interviewing as a Research Technique.' *Social Research Update* 50
- Burgess, P. & Shallice, T. (1996) 'Confabulation and Control of Recollection.' Memory 4 (4), 359-412
- Burnham, R. & Kai-Kee, E. (2011) *Teaching in the Art Museum: Interpretation as Experience* Los Angeles CA: Getty Publications
- Butler, R. (1963) 'The Life Review: An Interpretation of Reminiscence in the Aged.' *Psychiatry* 26, 55-76
- Button, V. (2007) The Turner Prize London: Tate Publishing
- Carraccio, C., Benson, B., Nixon, L. & Derstine, P. (2008) 'From the Educational Bench to the Clinical Bedside: Translating the Dreyfus Developmental Model to the Learning of Clinical Skills.' *Academic Medicine* 83 (8), 761-767

- CEDEFOP (2008) Validation of Non-formal and Informal Learning in Europe Luxembourg: Office for Official Publications of The European Communities
- CERI (Centre for Educational Research and Innovation) (2007) Understanding the Brain: The Birth of a Learning Science Paris: OECD Publishing
- Chan, T. & Goldthorpe, J. (2007) 'Social Stratification and Cultural Consumption: The Visual Arts in England.' *Poetics* 3, 168-190
- Chandler, D. (1994) *Transmission Model of Communication* [online] available from <http://www.aber.ac.uk/media/Documents/short/trans.html> [16 July 2010]
- Charmaz, K. (2006) Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis London: Sage Publications
- Chisholm, L. (2008) 'Re-contextualising Learning in Second Modernity.' Research in Post-Compulsory Education 13 (2), 139-147
- Clark, J. (2011) 'Using Diamond Ranking Activities as a Visual Methods Research Tool.' *Making Experience Visible: Using Visual Research Methods in Educational and Social Science* Held 8 April 2011 at BALTIC Centre for Contemporary Art.
- Cleeremans, A. & Jiménez, L. (2002) 'Implicit Learning and Consciousness: A Graded, Dynamic Perspective.' In French, R. & Cleeremans, A. (eds.) Implicit Learning and Consciousness Hove: Psychology Press, 1-40
- Coffield, F., Moseley, D., Hall, E. & Ecclestone, K. (2004) *Learning Styles and Pedagogy in Post-16 Learning: A Systematic and Critical Review* London: Learning and Skills Research Centre
- Collings, M. (1999) 'You've Made Your Bed...' *The Observer* 24 October [online] available from <http://www.guardian.co.uk/turner1999/Story/0,,201735,00.html> [10 January 2012]
- Conlon, T. (2003) 'A Review of Informal Learning Literature, Theory and Implications for Practice in Developing Global Professional Competence.' *Journal of European Industrial Training* 28 (2/3/4), 283-295
- Conway, M. (2005) 'Memory and the Self.' *Journal of Memory and Language* 53, 594-628
- Corti, L. (1993) 'Using Diaries in Social Research.' Social Research Update 2
- Crane, S. (2000) Museums and Memory Stanford CA: Stanford University Press
- Crooke, E. (2007) Museums and Community London: Routledge

- Cseh, M., Watkins, K., & Marsick, V. (1999) 'Reconceptualizing Marsick and Watkins' Model of Informal and Incidental Learning in the Workplace.' In Kuchinke, K. (ed.) *Proceedings, Academy of Human Resource Development Conference* Baton Rouge LA: Academy of Human Resource Development 1, 349-356
- Culture and Learning Consortium (2009) *Get It: The Power of Cultural Learning* [online] available from <http://www.cultureandlearning.org.uk> [18 May 2009]
- Cupchik, G., Vartanian, O., Crawley, A. & Mikulis, D. (2009) 'Viewing Artworks: Contributions of Cognitive Control and Perceptual Facilitation to Aesthetic Experience.' *Brain and Cognition* 70, 84-91
- Daselaar, S., Prince, S., Dennis, N., Hayes, S., Kim, H. & Cabeza, R. (2009)
 'Posterior Midline and Ventral Parietal Activity is Associated with Retrieval Success and Encoding Failure.' *Frontiers in Human Neuroscience* 3 (13) [online] available from
 http://www.frontiersin.org/Human_Neuroscience/10.3389/neuro.09.01 3.2009/full> [25 March 2012]
- Dawson, E. & Jensen, E. (2011) 'Contextual Approaches to Visitor Studies Research: Evaluating Audience Segmentation and Identity-Related Motivations.' *Visitor Studies* 14 (2), 127-140
- DCMS (2007) Taking Part: England's Survey of Culture, Leisure and Sport: Annual data 2006/07 [online] available from <http://www.culture.gov.uk/reference_library/research_and_statistics/4 872.aspx> [24 November 2009]

Denvir, B. (1990) Encyclopaedia of Impressionism London: Thames and Hudson

- DeSantis, K. & Housen, A. (2009) A Brief Guide to Developmental Theory and Aesthetic Development [online] available from <http://www.vtshome.org/pages/vts-downloads> [16 February 2011]
- Diamond, J. (1999) *Practical Evaluation Guide: Tools for Museums and Other Informal Learning Settings* Walnut Creek CA: AltaMira Press
- Dianne, B. & Dienes, Z. (1993) *Implicit Learning: Theoretical and Empirical Issues* Hillsdale NJ: Lawrence Erlbaum Associates
- Dickens, C. (1869) Hard Times Cambridge: Riverside Press
- Dienes, Z. & Perner, J. (2002) 'A Theory of the Implicit Nature of Implicit Learning.' In French, R. & Cleeremans, A. (eds.) *Implicit Learning and Consciousness* Hove: Psychology Press, 68-92

- DiMaggio, P. (1986) 'Cultural Entrepreneurship in Nineteenth-Century Boston.' In DiMaggio, P. (ed.) Nonprofit Enterprise in the Arts New York: Oxford University Press, 41-61
- DIUS (2009) The Learning Revolution London: The Stationary Office
- Dreyfus, S. & Dreyfus, H. (1980) *A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition* California: California University Berkeley Operations Research Centre
- Dreyfus, S. & Dreyfus, H. (1986) *Mind Over Machine: The Power of Human Intuition and Expertise in the Era of the Computer* New York: The Free Press
- Dreyfus, S. (1981) 'Four Models v Human Situational Understanding: Inherent Limitations on the Modelling of Business Expertise.' In Dreyfus, S. & Dreyfus, H. (1984) 'Putting Computers in Their Proper Place: Analysis Versus Intuition in the Classroom.' In D. Sloan (ed.) *The Computer in Education: A Critical Perspective* Columbia NY; Teachers' College Press. Cited in Lester, S. (2005) *Novice to Expert: The Dreyfus Model of Skill Acquisition* [online] available from <http://www.sld.demon.co.uk/dreyfus.pdf> [22 July 2012]
- Drotner, K. (2008) 'Informal Learning and Digital Media: Perceptions, Practices and Perspectives.' In Drotner, K., Jensen, H. & Schroder, K. (eds.) *Informal Learning and Digital Media* Newcastle: Cambridge Scholars Publishing, 10-28
- Dudzinska-Przesmitzki, D. & Grenier, R. (2008) 'Nonformal and Informal Adult Learning in Museums: A Literature Review.' *Journal of Museum Education* 33 (1), 9-22
- Dunlosky, J. & Metcalfe, J. (2009) *Metacognition* Thousand Oaks CA: Sage Publications
- Dunn, R. & Burton, A. (1997) 'The Victoria and Albert Museum: An Illustrated Chronology.' In Baker, M. & Richardson, B. (eds.) A Grand Design: The Art of the Victoria and Albert Museum New York: Harry N Abrams, 49-78
- Economou, M. (2004) 'Evaluation Strategies in the Cultural Sector: The Case of the Kelvingrove Museum and Art Gallery in Glasgow.' *Museum and Society* 2 (1), 30-46
- Ekerdt, D. (1986) 'The Busy Ethic: Moral Continuity Between Work and Retirement.' *The Gerontologist* 26 (3), 239-244
- Elliott, H. (1997) 'The Use of Diaries in Sociological Research on Health Experience.' *Sociological Research Online* 2 (2) [online] <http://www.socresonline.org.uk/2/2/7.html> [8 November 2009]

- Emirbayer, M. & Johnson, V. (2008) 'Bourdieu and Organizational Analysis.' Theory and Society 37, 1-44
- Eneroth, B. (2008) 'Knowledge, Sentience and Receptivity: A Paradigm of Lifelong Learning.' *European Journal of Education* 43 (2), 229-240
- Eraut, M. (2000) 'Non-Formal Learning, Implicit Learning and Tacit Knowledge in Professional Work.' In Coffield, F. (ed.) *The Necessity of Informal Learning* Bristol: The Policy Press
- European Commission (2001) Making a European Area of Lifelong Learning a Reality [online] available from <www.bolognaberlin2003.de/pdf/MitteilungEng.pdf> [19 July 2010]
- Evans, K. & Rainbird, H. (2002) 'The Significance of Workplace Learning for a 'Learning Society'.' In Evans, K., Hodkinson, P. & Unwin, L. (eds.) Working to Learn London: Kogan Page, 7-28
- Evans, K. (2002) 'The Challenges of 'Making Learning Visible': Problems and Issues in Recognizing Tacit Skills and Key Competencies.' In Evans, K., Hodkinson, P. & Unwin, L. (eds.) Working to Learn London: Kogan Page, 79-94
- Eysenck, M. & Keane, M. (2005) 5th edn. *Cognitive Psychology: A Student's* Handbook New York: Psychology Press
- Fairchild, A. (1991) 'Describing Aesthetic Experience: Creating a Model.' Canadian Journal of Education 16 (3), 267-80
- Falk, J. & Dierking, L. (1992) *The Museum Experience* Washington DC: Whalesback Books
- Falk, J. & Dierking, L. (2000) *Learning from Museums* Walnut Creek CA: AltaMira Press
- Falk, J. & Dierking, L. (2002) *Lessons without Limits: How Free-Choice Learning is Transforming Education* Walnut Creek CA: AltaMira Press
- Falk, J. (2005) 'Free-Choice Environmental Learning: Framing the Discussion.' Environmental Education Research 11 (3), 265-280
- Falk, J. (2009) *Identity and the Museum Visitor Experience* Walnut Creek CA: Left Coast Press
- Falk, J., Heimlich, J. & Foutz, S. (eds.) (2009) *Free-Choice Learning and the Environment* Plymouth: AltaMira Press
- Falk, J., Moussouri, T. & Coulson, D. (1998) 'The Effect of Visitors' Agendas on Museum Learning.' *Curator* 41 (2), 107-120
- Faria, C., Pereira, G. & Chagas, I. (2010) 'D. Carlos de Bragança, a Pioneer ofExperimental Marine Oceanography: Filling the Gap between Formal and

Informal Science Education.' *Science and Education* [online] available from <http://dx.doi.org/10.1007/s11191-010-9239-x> [18 August 2010]

- Fenwick, T. (2000) 'Expanding Conceptions of Experiential Learning: A Review of the Five Contemporary Perspectives on Cognition.' Adult Education Quarterly 50
- Fienberg, J. & Leinhardt, G. (2002) 'Looking Through the Glass: Reflections of Identity in Conversations at a History Museum.' In Leinhardt, G., Crowley, K. & Knutson, K. (eds.) *Learning Conversations in Museums* Hillsdale NJ: Lawrence Erlbaum Associates
- Fisk, A., & Schneider, W. (1984) 'Memory as a Function of Attention, Level of Processing and Automatization.' *Journal of Experimental Psychology: Learning, Memory and Cognition* 10, 181-197
- Fitts, P. & Posner, M. (1967) *Human Performance* Belmont CA: Brooks/Cole Publishing
- Fitzgerald, J. & Lawrence, R. (1984) 'Autobiographical Memory Across the Life-Span.' *Journal of Gerontology* 39, 692-699
- Flavell, J. (1979) 'Metacognition and Cognitive Monitoring: A New Area of Cognitive-Developmental Inquiry.' *American Psychologist* 34, 906-911
- Fleming, N. (2011) VARK A Guide to Learning Styles [online] available from http://www.vark-learn.com> [6 March 2012]
- Folkestad, G. (2006) 'Formal and Informal learning situations or practices vs.
 formal and informal ways of learning.' *British Journal of Music Education* 23 (2), 135–145
- Fontes, T. & O'Mahony, M. (2008) 'In-Depth Interviewing by Instant Messenger.' *Social Research Update* 53
- Frensch, P. (1998) 'One Concept, Multiple Meanings.' In Stadler, M. & Frensch,P. (eds.) Handbook of Implicit Learning Thousand Oaks CA: Sage, 47-104
- Friends of the Shipley Art Gallery (2011) *Membership* [online] available from http://www.shipleyfriends.co.uk/membership.html [5 January 2012]
- Funke, J. (2001) 'Dynamic Systems as Tools for Analysing Human Judgement.' *Thinking and Reasoning* 7 (1), 69-89
- Galloway, S. & Stanley, J. (2004) 'Thinking Outside the Box: Galleries, Museums and Evaluation.' *Museum and Society* 2 (2), 125-146
- Gardner, H. (1983) *Frames of Mind: The Theory of Multiple Intelligences* New York: Basic Books
- Geake, J. (2009) *The Brain at School: Educational Neuroscience in the Classroom* Maidenhead: Open University Press

- Gershuny, J. (2002) 'A New Measure of Social Position: Social Mobility and Human Capital in Britain.' *Working Papers of the Institute for Social and Economic Research* Colchester: University of Essex
- Getty Center for Education in the Arts (1990) *Insights Museums, Visitors, Attitudes, Expectations: A Focus Group Experiment* Los Angeles CA: The J. Paul Getty Trust
- Gibbs, A. (1997) 'Focus Groups.' Social Research Update 19
- Gilleard, C. & Higgs, P. (2009) 'The Third Age: Field, Habitus, or Identity.' In Jones, I., Higgs, P. & Ekerdt, D. (eds.) *Consumption and Generational Change: The Rise of Consumer Lifestyles* London: Transaction Publishers, 23-36
- Glaser, B. & Strauss, A. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research* Chicago: Aldine
- Glassner, B. & Loughlin, J. (1987) *Days in Adolescent Worlds: Burnouts to Straights* New York: St Martin's Press
- Gluck, M., Mercado, E. & Myers, C. (2007) *The Psychology of Learning and Memory* New York: Worth Publishers
- Glynn, M., Bahattacharya, C. & Rao, H. (1996) 'Art Museum Membership and Cultural Distinction: Relating Members' Perceptions of Prestige to Benefit Usage.' *Poetics* 24, 259-274
- Gola, G. (2009) 'Informal Learning of Social Workers.' *Journal of Workplace Learning* 21 (4), 334-346
- Goldstein, E. (2005) *Cognitive Psychology: Connecting Mind, Research and Everyday Experience* Belmont CA: Thomson Wadsworth
- Goldstein, E. (2008) 2nd edn. *Cognitive Psychology: Connecting Mind, Research and Everyday Experience* Belmont CA: Thomson Wadsworth
- Gordon-Finlayson, A. (2010) 'QM2: Grounded Theory.' In Forrester, M. (ed.) Doing Qualitative Research in Psychology: A Practical Guide London: Sage Publications, 154-176
- Goulding, C. (1999) 'Contemporary Museum Culture and Consumer Behaviour.' Journal of Marketing Management 15, 647-671
- Grenfell, M. & Hardy, C. (2003) 'Field Manoeuvres: Bourdieu and the Young British Artists.' Space and Culture 6 (1), 19-34
- Grenfell, M. & Hardy, C. (2007) Art Rules Oxford: Berg
- Groome, D. (1999) An Introduction to Cognitive Psychology: Processes and Disorders Hove: Psychology Press Limited

- Halbwachs, M. (1980) *The Collective Memory* Palo Alto: Stanford University Press
- Hall, S. (1980) 'Encoding/Decoding.' In Hall, S., Hobson, D., Lowe, A. & Willis, P. (eds.) *Culture, Media, Language* Abingdon, Oxon: Routledge
- Halle, D. (1993) *Inside Culture: Art and Class in the American Home* London: The University of Chicago Press
- Haque, S. & Conway, M. (2001) 'Sampling the Process of Autobiographical Memory Construction.' *European Journal of Cognitive Psychology* 13 (4), 529-547
- Hargreaves, J. & Delya, L. (2001) 'Delya's Story: From Expert to Novice, a Critique of Benner's Concept of Context in the Development of Expert Nursing Practice.' International Journal of Nursing Studies 38, 389–394
- Hasher, L. & Zacks, R. (1979) 'Automatic and Effortful Processes in Memory.' Journal of Experimental Psychology: General 108 (3), 356-388
- Hassin, R., Bargh, J., Engell, D. & McCulloch, K. (2009) 'Implicit Working Memory.' *Consciousness and Cognition* 18, 665-678
- Hayes, N. & Broadbent, D. (1988) 'Two Modes of Learning for Interactive Tasks.' Cognition 28, 249-276
- Hekkert, P. & van Wieringen, P. (1996) 'The Impact of Level of Expertise on the Evaluation of Original and Altered Versions of Post-Impressionistic Paintings.' *Psychologica* 94, 117-131
- Hélie, S., Waldschmidt, J. & Ashby, G. (2010) 'Automaticity in Rule-Based and Information Integration Categorization.' *Attention, Perception, & Psychophysics* 72 (4), 1013-1031
- Henderson, T. (2010) '313m could give Laing Art Gallery future hope.' Journal Live [online] available from <http://www.journallive.co.uk/north-eastnews/todays-news/2010/09/28/13m-could-give-laing-art-gallery-futurehope-61634-27353856/> [29 March 2013]
- Henke, K., Treyer, V., Nagy, E., Kneifel, S., Dursteler, M., Nitsch, R. & Buck, A.
 (2003) 'Active Hippocampus during Nonconscious Memories.' *Consciousness and Cognition* 12, 31-48
- Hennion, A. (1995) 'The History of Art: Lessons in Mediation.' *Réseaux: The French Journal of Communication* 3(2), 233–62
- Hewison, R (1987) *The Heritage Industry: Britain in a Climate of Decline* London: Matheun
- Hewitt, D. (2010) Introduction to Qualitative Methods in Psychology Harlow: Pearson Education

- Higgins, T. (1987) 'Self-Discrepancy: A Theory Relating Self and Affect.' Psychological Review 94 (3), 319-340
- Holloway, I. (1997) *Basic Concepts for Qualitative Research* Oxford: Blackwell Science
- Holstein, J. & Gubrium, J. (1995) *The Active Interview* Thousand Oaks CA: Sage Publications
- Hood, M. (2004) 'Staying Away: Why People Choose Not to Visit Museums.' In Anderson, G. (ed.) *Reinventing the Museum* Walnut Creek CA: AltaMira Press
- Hooper-Greenhill, E. (2002) *Developing a Scheme for Finding Evidence of the Outcomes and Impact of Learning in Museums, Archives and Libraries: The Conceptual Framework* [online] available from <www.le.ac.uk/museumstudies/rcmg> [4 August 2010]
- Housen, A. (2007) Art Viewing and Aesthetic Development: Designing for the Viewer [online] available from http://www.vtshome.org/pages/vts-downloads [16 February 2011]
- Hovarth, J., Sternberg, R., Forsythe, E., Bullis, R., Williams, W., & Sweeney, P. (1996) *Implicit Theories of Leadership Practice* Paper presented at annual meeting of AERA, New York. Cited in Eraut, M. (2000) 'Non-Formal Learning, Implicit Learning and Tacit Knowledge in Professional Work.' In Coffield, F. (ed.) *The Necessity of Informal Learning* Bristol: The Policy Press, 14
- Iacoboni, M. (2009) 'Imitation, Empathy, and Mirror Neurons.' Annual Review of Psychology 60, 653–70
- Idler, E. (2006) 'Religion and Aging.' In Binstock, R., George, L., Cutler, S., Hendricks, J. & Schultz, J. (eds.) *Handbook of Aging and the Social Sciences* 6th edn. Amsterdam: Elsevier, 272-295
- Jackson, K. & Trochim, W. (2002) 'Concept Mapping as an Alternative Approach for the Analysis of Open-Ended Survey Responses.' Organizational Research Methods 5, 307-336
- Jansma, J., Ramsey, N., Slagter, H. & Kahn, R. (2001) 'Functional Anatomical Correlates of Controlled and Automatic Processing.' *Journal of Cognitive Neuroscience* 13, 730-743
- Jennings, G. (2011) 'Confessions of a Formal Education Enabler.' Museum Commons [online] available from <http://museumcommons.blogspot.com/2011/08/confessions-of-formaleducation-enabler.html> [22 August 2011]

- Jensen, E. (2010) Something Different: A Pilot Study Evaluating Family Outreach Activities at the Fitzwilliam Museum [online] available from <http://research.mla.gov.uk/evidence/viewpublication.php?dm=nrm&pubid=1135> [25 March 2012]
- Joiner, C. (1998) 'Concept Mapping in Marketing.' In Alba, J. & Hutchinson, J. (eds.) Advances in Consumer Research Volume 25 Provo UT: Association for Consumer Research, 311-322 [online] available from <http://www.acrwebsite.org/volumes/display.asp?id=7890> [15 March 2011]
- Jones, J. (2011) 'How Britain Got its Patriotism Back.' *The Guardian* 17 December [online] available at <http://www.guardian.co.uk/culture/2011/dec/17/jonathan-jonesbritain-new-patriotism> [6 January 2012]
- Kandel, E., Kupferman, I. & Iverson, S. (2000) 'Learning and Memory.' In Kandel,
 E., Schwartz, J., & Jessell, T. (eds.) *Principles of Neural Science* New York: McCraw-Hill, 1227-1246
- Kang, D. (2007) 'Rhizoactivity: Toward a Postmodern Theory of Lifelong Learning.' Adult Education Quarterly 57
- Kavanagh, G. (2000) Dream Spaces New York: Leicester University Press
- Keegan, S. (2009) *Qualitative Research: Good Decision Making Through Understanding People, Cultures and Markets* London: Kogan Page
- Kesner, L. (2006) "The Role of Cognitive Competence in the Art Museum Experience." *Museum Management and Curatorship* 21 (1), 4-19
- Kisiel, J. & Anderson, D. (2010) 'The Challenges of Understanding Science Learning in Informal Environments.' *Curator* 53 (2), 181-189
- Knowles, M. (1975) *Self-Directed Learning: A Guide for Learners and Teachers* New York: Association Press
- Knowles, M., Holton III, E. & Swanson, A. (2005) *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development* Burlington MA: Butterworth-Heinemann
- Knudsen, F. (2009) 'Paperwork at the Service of Safety? Workers' Reluctance against Written Procedures Exemplified by the Concept of 'Seamanship'.' Safety Science 47, 295-303
- Kolb, D. (1984) Experiential Learning Englewood Cliffs, NJ: Prentice Hall
- Koran, J., Koran, M., Foster J. & Dierking, L. (1988) 'Using Modeling to Direct Attention.' *Curator* 31 (1), 36-42

- Krätzig, G. & Arbuthnott, K. (2006) 'Perceptual Learning Style and Learning
 Proficiency: A Test of the Hypothesis.' *Journal of Educational Psychology* 98 (1), 238-246
- Krueger, R. & Casey, M. (2000) 3rd edn. *Focus Groups: A Practical Guide for Applied Research* Thousand Oaks CA: Sage Publications
- Kvale, S. (1996) InterViews: An Introduction to Qualitative Research Interviewing Thousand Oaks, CA: Sage
- Lachapelle, R., Murray, D., & Neim, S. (2003). 'Aesthetic understanding as informed experience.' *Journal of Aesthetic Education*, 37 (3), 78-98
- Lashlett, P. (1991) A Fresh Map of Life: The Emergence of the Third Age London: Harvard University Press
- Leinhardt, G. & Knutson, K. (2004) *Listening in on Museum Conversations* Oxford: AltaMira Press
- Leinhardt, G., Tittle, C. & Knutson, K. (2002) 'Talking to Oneself: Diaries of Museum Visits.' In Leinhardt, G., Crowley, K. & Knutson, K. (eds.) *Learning Conversations in Museums* Hillsdale NJ: Lawrence Erlbaum Associates, 103-134
- Linton, M. (1982) 'Transformations of Memory in Everyday Life.' In Neisser, U. (ed.) *Memory Observed* San Francisco CA: Freeman, 77-91
- Lisus, N. & Ericson, R. (1999) 'Authorizing Art: The Effect of Multimedia Formats on the Museum Experience.' *Canadian Review of Sociology and Anthropology* 36 (2), 199-216
- Livesey, C. (2006) AS Sociology: Revision, Sociology Methods [online] available from <www.sociology.org.uk> [30 March 2011]
- Logan, G. (1992) 'Attention and Preattention in Theories of Automaticity.' American Journal of Psychology 105, 317-339
- Logan, G., Taylor, S. & Etherton, J. (1999) 'Attention and Automaticity: Toward a Theoretical Integration.' *Psychological Research* 62, 165-181
- Lohman, M. (2000) 'Environmental Inhibitors to Informal Learning in the Workplace: A Case Study of Public School Teachers.' *Adult Education Quarterly* 50, 83-101
- Lopes, P. (2000) 'Pierre Bourdieu's Fields of Cultural Production: A Case Study of Modern Jazz.' In Brown, N. & Szeman, I. (eds.) *Pierre Bourdieu: Fieldwork in Culture* Lanham, MD: Rowman and Littlefield, 165-185
- Luke, J. & Knutson, K. (2010) 'Beyond Science: Implications of the LSIE Report for Art Museum Education.' *Curator* 53 (2), 229-228

- Macrae, C. & Cloutier, J. (2009) 'A Matter of Design: Priming Context and Person Perception.' *Journal of Experimental Social Psychology* 45, 1012– 1015
- Markus, H. & Nurius, P. (1986) 'Possible Selves.' *American Psychologist* 41(9), 954-969
- Marsick, V., Volpe, M. & Watkins, K. (1999) 'Theory and Practice of Informal Learning in the Knowledge Era.' *Advances in Developing Human Resources* 1 (3), 80-95
- Martin, G., Carlson, N. & Buskist, W. (2007) 3rd edn. *Psychology* Harlow: Pearson Education
- Martin, G., Carlson, N. & Buskist, W. (2010) 4th edn. *Psychology* Harlow: Pearson Education
- Mason, R. (2005) 'Museums, Galleries and Heritage: Sites of Meaning-Making and Communication.' In Corsane, G. (ed.) *Heritage, Museums and Galleries* Abingdon, Oxon: Routledge
- Maxwell, J. (1996) *Qualitative Research Design: An Interactive Approach* London: Sage
- Mayr, U. (2009) 'Sticky Plans: Inhibition and Binding During Serial-Task Control.' Cognitive Psychology 59 (2), 123-153
- McDermott-Lewis, M. (1990) 'Through Their Eyes: Novices and Advanced Amateurs.' In McDermott-Lewis, M. (ed.) by Grinstead, S. & Ritchie, M. *The Denver Art Museum Interpretive Project* Denver CO: Denver Art Museum
- McManus, P. (2009) *Museums and Education: Purpose, Pedagogy, Performance* by Hooper-Greenhill, E. reviewed in *Museum and Society* 7 (3), 207-208
- Medved, M., & Oatley, K. (2000) 'Memories and Scientific Literacy:
 Remembering Exhibits from a Science Centre.' *International Journal of Science Education* 22(10), 1117-1132
- Medved, M., Cupchik, G., & Oatley, K. (2004) 'Interpretive Memories of Artworks.' *Memory* 12 (1), 119-128
- Meier, B., Morger, V. & Grafa, P. (2003) 'Competition between Automatic and Controlled Processes.' *Consciousness and Cognition* 12, 309-319

Meier, P. (2007) 'Mind-Mapping.' Social Research Update 52

Melton, A. (1967) 'Relations between Short-Term Memory, Long-Term Memory and Learning.' In Kimble, D. (ed.) *The Organization of Recall: Proceedings of the Second International Interdisciplinary Conference on Learning, Remembering and Forgetting* New York: New York Academy of Sciences

- Meyers, R. (2005) 'A Pragmatic Epistemology for Free-Choice Learning.' Environmental Education Research 11 (3), 309-320
- Miller, G. (1956) 'The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information.' *The Psychological Review* 63, 81-97
- MLA (2008a) 'Generic Learning Outcomes.' Inspiring Learning for All [online] available from <http://www.inspiringlearningforall.gov.uk/toolstemplates/genericlearni ng/index.html> [16 July 2010]
- MLA (2008b) 'Inspiring Learning Case Studies.' Inspiring Learning for All [online] available from <http://www.inspiringlearningforall.gov.uk/successstories/> [19 July 2010]
- MLA (2008c) 'Tutorial: Quantitative data.' Inspiring Learning for All [online] available from <http://www.inspiringlearningforall.gov.uk/resources/theframework.htm l> [29 March 2013]
- Moon, J. (2004) A Handbook of Reflective and Experiential Learning: Theory and *Practice* Abingdon, Oxon: RoutledgeFalmer
- Moors, A. & De Houwer, J. (2006) 'Automaticity: A Theoretical and Conceptual Analysis.' *Psychological Bulletin* 132 (2), 297-326
- Moscardo, G., Ballantyne, R. & Hughes, K. (2007) *Designing Interpretive Signs* Golden, CO: Fulcrum Publishing
- Murphy, G. & Allopenna, P. (1994). 'The Locus of Knowledge Effects in Concept Learning.' Journal of Experimental Psychology: Learning, Memory and Cognition 20, 904–919
- Neisser, U., Boodoo, G., Bouchard, T., Boykin, W., Brody, N., Ceci, S., Halpern,
 D., Loehlin, J., Perloff, R., Sternberg, R. & Urbina, S. (1996) 'Intelligence:
 Knowns and Unknowns.' *American Psychologist* 51 (2), 77-101
- Neubauer, A. & Fink, A. (2010) 'Neuroscientific Approaches to the Study of Individual Differences in Cognition and Personality.' In Gruszka, A., Matthews, G. & Szymura, B. *Handbook of Individual Differences in Cognition* New York: Springer, 73-86
- Newman, A. & McLean, F. (2006) 'The Impact of Museums upon Identity.' International Journal of Heritage Studies 12 (1), 49-68
- Newman, A. & Whitehead, C. (2006) *Fivearts Cities: An Evaluative Report on the Impact on Over 50s People of Participation in Activities Related to British Art Show 6* Newcastle-upon-Tyne: Newcastle University

- Newman, A. (2005) 'Understanding the Social Impact of Museums, Galleries and Heritage through the Concept of Capital.' In Corsane, G. (ed.) *Heritage, Museums and Galleries* Abingdon, Oxon: Routledge
- Newman, A., Goulding, A. & Whitehead, C. (2012) 'The Consumption of Contemporary Visual Art: Identity Formation in Late Adulthood.' *Cultural Trends* 21 (1), 31-47
- Norman, D. & Shallice, T. (1986) 'Attention to Action: Willed and Automatic Control of Behaviour.' In Davidson, R., Schwartz, Z. & Shapiro, D. (eds.) *The Design of Everyday Things* New York: Doubleday
- Ollivier, M., Gauthier, G. & Truong, T. (2009) 'Cultural Classifications and Social Divisions: A Symmetrical Approach.' *Poetics* 37, 456–473
- ONS (Office for National Statistics) (2008) *The National Statistics Socio-Economic Classification* [online] available from <http://www.ons.gov.uk/about-statistics/classifications/current/nssec/index.html> [2 March 2010]
- Open University (2010) Becky Milne Explains the Cognitive Interview [online] available from http://www.open2.net/eyewitness/becky_milne.html [15 March 2011]
- Orrantia, J., Rodríguez, L. & Santiago, V. (2010) 'Automatic Activation of Addition Facts in Arithmetic Word Problems.' *The Quarterly Journal of Experimental Psychology* 63 (2), 310-319
- Oskala, A, Keaney, E., Chan, T. & Bunting, C. (2009) *Encourage Children Today to Build Audiences for Tomorrow* [online] available from <http://www.artscouncil.org.uk/publication_archive/encourage-childrentoday-to-build-audiences-for-tomorrow/> [16 July 2012]
- Oxford Dictionaries (2010) Oxford Dictionaries Online [online] available from <www.oxforddictionaries.com> [4 August 2010]
- Oxford English Dictionary (1989) 2nd edn. Oxford: Clarendon
- Palmeri, T., Wong, A., & Gauthier, I. (2004). 'Computational Approaches to the Development of Perceptual Expertise.' *Trends in Cognitive Sciences* 8, 378-386
- Panofsky, E. (1955) Meaning in the Visual Arts New York: Doubleday
- Paris, S. & Mercer, M. (2002) 'Finding Self in Objects: Identity Exploration in Museums.' In Leinhardt, G., Crowley, K. & Knutson, K. (eds.) *Learning Conversations in Museums* Hillsdale NJ: Lawrence Erlbaum Associates, 401-423
- Pashler, H., Johnston, J. & Ruthruff, E. (2001) 'Attention and Performance.' Annual Review of Psychology 52, 629-651

- Passer, M. & Smith, R. (2011) 5th edn. *Psychology: The Science of Mind and Behavior* New York: McGraw-Hill
- Patton, M. (2002) *Qualitative Research and Evaluation Methods* Thousand Oaks CA: Sage Publications
- Pavlov, I. (1955) *Selected Works* trans. by Belsky, S. Moscow: Foreign Languages Publishing House
- Peillon, M. (1998) 'Bourdieu's Field and the Sociology of Welfare.' *Journal of Social Policy* 27 (2), 213-229
- Peräkylä, A. (2004) 'Reliability and Validity in Research Based on Naturally Occurring Social Interaction.' In Silverman, D. (ed.) *Qualitative Research* London: Sage, 283-304
- Perlman, A., Pothos, E. & Edwards, D. (2010) 'Task Relevant Chunking in Sequence Learning.' *Experimental Psychology: Human Perception and Performance* 36 (3), 649-661
- Perruchet, P. & Vinter, A. (2002) 'The Self-Organising Consciousness: A
 Framework for Implicit Learning.' In French, R. & Cleeremans, A (eds.)
 Implicit Learning and Consciousness Hove: Psychology Press, 41-67
- Pessin, A. & Becker, H. (2008) 'Epilogue to the 25th Anniversary Edition: A
 Dialogue on the Ideas of 'World' and 'Field'.' In Becker, H. Art Worlds
 (25th Anniversary Edition) Berkley, CA: University of California Press, 372-386
- Peterson, R. (1992) 'Understanding Audience Segmentation: From Elite and Mass to Omnivore and Univore.' *Poetics* 21, 243-58
- Pope, P. (2007) "I Thought I Was Creative But ...' Explorations of Cultural Capital with Liverpool Young People.' *Journal of Social Work Practice* 21 (3), 391-400
- Posner, G., Strike, K., Hewson, P. & Gerzog, W. (1982) 'Accommodation of a Scientific Conception: Toward a Theory of Conceptual Change.' Science and Education 66 (2), 211-227
- Pozzali, A. (2008) 'Tacit Knowledge, Implicit Learning and Scientific Reasoning.' Mind Soc. 7, 227-237
- Pringle, E. (2006) Learning in the Gallery: Context, Process, Outcomes [online] Available from <http://www.engage.org/publications/seebook.aspx?id=1282> [5th March 2012]
- Prior, N. (2005) 'A Question of Perception: Bourdieu, Art and the Postmodern.' British Journal of Sociology 56 (1), 123-139

Rasmussen, S. (2002) 'The Uses of Memory.' Culture and Psychology 8, 113-129

- Rawson, K. & Middleton, E. (2009) 'Memory-Based Processing as a Mechanism of Automaticity in Text Comprehension.' *Journal of Experimental Psychology: Learning, Memory and Cognition* 35 (2), 353-370
- Rawson, K. (2004) 'Exploring Automaticity in Text Processing: Syntactic Ambiguity as a Test Case.' *Cognitive Psychology* 49, 333-369
- Rawson, K. (2010) 'Defining and Investigating Automaticity in Reading Comprehension.' *The Psychology of Learning and Motivation* 52, 185-230
- RCMG (Research Centre for Museums and Galleries) (2001a) *Meaning Making in Art Museums 1: Visitors' Interpretive Strategies at Wolverhampton Art Gallery* [online] available from <http://www.le.ac.uk/ms/research/pub1126.html> [18 January 2010]
- RCMG (2001b) Meaning Making in Art Museums 2: Visitors' Interpretive Strategies at Nottingham Castle Museum and Art Gallery [online] available from <http://www.le.ac.uk/ms/research/pub1109.html> [3 April 2009]
- Reay, D. (2004) "It's All Becoming a Habitus': Beyond the Habitual Use of Habitus in Educational Research." British Journal of Sociology of Education 25 (4), 431-444
- Reber, A. (1993) *Implicit Learning and Tacit Knowledge: An Essay on the Cognitive Unconscious* New York: Oxford University Press
- Reed, N., McLeod, P. & Dienes, Z. (2010) 'Implicit Knowledge and Motor Skill:
 What People Who Know How to Catch Don't Know.' *Consciousness and Cognition* 19, 63-76
- Reynolds, N. (2001) 'Turner Prize Won by Man who Turns Lights Off.' *The Telegraph* 10 December [online] available from <http://www.telegraph.co.uk/news/uknews/1364860/Turner-Prize-wonby-man-who-turns-lights-off.html>
- Richey, S. (2004) 'Promoting Social Inclusion through the Arts.' *British Journal of Learning Support* 19 (2), 50-51
- Rizzolatti, G. & Craighero, L. (2004) 'The Mirror-Neuron System.' *Annual Review* of Neuroscience 27, 169-92
- Rogers, A. (2004) Looking Again at Non-Formal and Informal Education Towards a New Paradigm [online] available from <www.infed.org/biblio/non_formal_paradigm.htm> [21 January 2009]
- Rowles, G. (1983) 'Place and Personal Identity in Old Age: Observations from Appalachia.' *Journal of Environmental Psychology* 3, 299-313

- Rubin, D., Rahhal, T. & Poon, L. (1998) 'Things Learned in Early Adulthood are Remembered Best.' *Memory and Cognition* 26 (1), 3-19
- Rubin, H. & Rubin, I. (2005) 2nd edn. *Qualitative Interviewing: The Art of Hearing Data* Thousand Oaks, CA: Sage Publications
- Rudy, J. (2008)*The Neurobiology of Learning and Memory* Sunderland MA: Sinauer Associates
- Ryan, G. & Bernard, R. (2003) 'Data Management and Analysis Methods.' In Denzin, N. & Lincoln, Y. (eds.) *Collecting and Interpreting Qualitative Materials* Thousand Oaks CA: Sage Publications, 259-309
- Saarilouma, P. (1995) Chess Players' Thinking: A Cognitive Psychological Approach London: Routledge
- Sacks, O. (1985) The Man Who Mistook his Wife for a Hat London: Picador
- Saling, L. & Phillips, J. (2007) 'Automatic Behaviour: Efficient Not Mindless.' Brain Research Bulletin 73, 1–20
- Schacter, D., Wagner, A. & Buckner, R. (2000) 'Memory Systems of 1999.' In Tulving, E. & Craik, F (eds.) *The Oxford Handbook of Memory* New York: Oxford University Press
- Scherger, S. (2009) 'Cultural Practices and the Life Course.' *Cultural Trends* 18 (1), 23-45
- Schneider, W. & Shiffrin, R. (1977) 'Controlled and Automatic Human
 Information Processing: 1, Detection, Search and Attention.'
 Psychological Review 84, 1-66
- Schugurensky, D. (2000) 'The Forms of Informal Learning: Towards a Conceptualization of the Field.' NALL Working Paper [online] available from <http://www.nall.ca/res/19formsofinformal.htm> [30 March 2012]
- Seger, C. (1997) 'Two Forms of Sequential Implicit Learning.' Consciousness and
 - *Cognition* 6, 108-131
- Semmel, M. (2010) 'The *LSIE* Report and IMLS: Supporting Learning in the Informal Environments of Museums and Libraries' *Curator* 53 (2), 155-162
- Serota, N. (2009) 'Museums and Young People.' In Bellamy, K. & Oppenheim, C. (eds.) *Learning to Live: Museums, Young People and Education* London: Institute for Public Policy Research, 21-29
- Serrell, B. (1996) Exhibit Labels Walnut Creek CA: AltaMira Press

- Sfard, A. (1998) 'On Two Metaphors for Learning and the Dangers of Choosing Just One.' In *Educational Researcher* 27 (2), 4-13
- Shanks, D. & St. John, M. (1994) 'Characteristics of Dissociable Learning Systems.' *Behavioural and Brain Sciences* 17, 367-447
- Shannon, C. & Weaver, W. (1949) A Mathematical Model of Communication. Urbana, IL: University of Illinois Press. Cited in Chandler, D. (1994) The Transmission Model of Communication [online] available from <http://www.aber.ac.uk/media/Documents/short/trans.html> [30 August 2011]
- Shapiro, J. (2003) Exploring Teachers' Informal Learning for Policy on Professional Development [online] available from <http://www.rand.org/publications/RGSD/RGSD174> [19 July 2010]
- Shaw, R. (2010) 'QM3: Interpretative Phenomenological Analysis.' In Forrester,
 M. (ed.) *Doing Qualitative Research in Psychology: A Practical Guide*London: Sage Publications, 177 201
- Sherman, J., Gawronski, B., Gonsalkorale, K., Hugenberg, K., Allen, J. & Groom,
 C. (2008) 'The Self-Regulation of Automatic Associations and Behavioral Impulses.' *Psychological Review* 115 (2), 314-335
- Shipley Friends (2011) *Friends of the Shipley Art Gallery Homepage* [online] available from http://www.shipleyfriends.co.uk/ [14 April 2011]
- Shiraev, E. & Levy, D. (2010) 4th edn. *Cross-Cultural Psychology* Boston MA: Pearson Education
- Silverman, D. (2003) 'Methods of Collecting and Analysing Empirical Matters.'
 In Denzin, N. & Lincoln, Y. (eds.) *Collecting and Interpreting Qualitative Materials* Thousand Oaks CA: Sage Publications, 340-362
- Silverman, D. (2005) 2nd edn. *Doing Qualitative Research* London: Sage Publications
- Silverman, D. (2010) 3rd edn. *Doing Qualitative Research: A Practical Handbook* London: Sage Publications
- Silverman, L. (1995) 'Visitor Meaning-Making in Museums for a New Age.' Curator 38 (3), 161-170
- Smith, E. & Kosslyn, S. (2007) *Cognitive Psychology: Mind and Brain* Upper Saddle River NJ: Pearson Education
- Smith, J. (2009) Interpretative Phenomenological Analysis: About IPA [online] available from http://www.ipa.bbk.ac.uk/about-ipa [15 March 2011]
- Smith, M. (1999) Informal Learning [online] available from <http://www.infed.org/biblio/inf-Irn.htm> [19 January 2009]

- Smith, M. (2001) 'David A. Kolb on Experiential Learning.' The Encyclopaedia of Informal Education [online] available from http://www.infed.org/bexplrn.htm> [20 July 2010]
- Smith, P. (2001) *Cultural Theory: An Introduction* Malden, MA: Blackwell Publishing
- Smith, T. (2009) What is Contemporary Art Chicago IL: University of Chicago Press
- Stadler, M. & Roediger, H. (1998) 'The Question of Awareness in Research on Implicit Learning.' In Stadler, M. & Frensch, P. (eds.) Handbook of Implicit Learning Thousand Oaks: Sage, 105-132
- Sternberg, R. (1999) 2nd edn. *Cognitive Psychology* Orlando FL: Harcourt Brace & Company
- Stevenson, J. (1991) 'The Long-Term Impact of Interactive Exhibits.' International Journal of Science Education 13 (5), 521 — 531
- Stratton, P. (1997) 'Attributional Coding of Interview Data: Meeting the Needs of Long-Haul Passengers.' In Hayes, N. (ed.) Doing Qualitative Analysis in Psychology Hove: Psychology Press, 115-142
- Strauss, A. & Corbin, J. (1990) *Basics of Qualitative Research* Newbury Park, CA: Sage Publications
- Street, J. (2005) 'Showbusiness of a Serious Kind: A Cultural Politics of the Arts Prize.' *Media, Culture, Society* 27 (6), 819-840
- Stroop, J. (1935) 'Studies of Interference in Serial Verbal Reactions.' *Journal of Experimental Psychology* 18, 643-662
- Stuart, H. (1985) 'Should Concept Maps be Scored Numerically?' *European* Journal of Science Education 7 (1), 73-81
- Suhler, C. & Churchland, P. (2009) 'Control: Conscious and Otherwise.' Trends in Cognitive Sciences 13 (8), 341-347
- Stylianides, I. (2003) 'Significant moments, autobiography and personal encounters with art.' In Xanthoudaki, M., Tickle, L. & Sekules, V. (eds.) *Researching Visual Arts Education in Museums and Galleries*, London: Kluwer Academic Publishers, 153-166
- Sun, R., Merrill, E. & Peterson T. (2001) 'From Implicit Skills to Explicit Knowledge: A Bottom-up Model of Skill Learning.' *Cognitive Science* 25, 203-244
- Swanwick, T. (2005) 'Informal Learning in Postgraduate Medical Education: from Cognitivism to 'Culturism'.' *Medical Education* 39, 859-865

- Swartz, D. (1997) *Culture and Power: the Sociology of Pierre Bourdieu* Chicago: The University of Chicago Press
- Tapp, A. & Warren, S. (2010) 'Field-Capital Theory and its Implications for Marketing.' *European Journal of Marketing* 44 (1/2), 200-222
- Taylor, B. (ed.) (2006) Inspiring Learning in the Gallery London: Engage
- Teijlingen, E. & Hundley, V. (2001) 'The Importance of Pilot Studies.' *Social Research Update* 3
- Terry, S. (2009) 4th edn. *Learning and* Memory Boston MA: Pearson Education
- The Concise Oxford English Dictionary (2008) 12th edn. Oxford: Oxford University Press
- The Guardian (2013) 'English gallery and museum visitors which place was most popular in 2012?' *Datablog* [online] Available from <http://www.guardian.co.uk/news/datablog/2012/oct/01/museumgallery-visitor-figures-england-data> [29 March 2013]
- Thompson, J. (2011) (jma_thompson@hotmail.com) *Friends of the Shipley* [email to Elwick, A.] (a.r.elwick@ncl.ac.uk) [21 February 2011]
- Thompson, J., Poliakoff, E., Sollom, A., Howard, E., Craufurd, D. & Snowden, J.
 (2010) 'Automaticity and Attention in Huntington's Disease: When Two Hands Are Not Better than One.' *Neuropsychologia* 48, 171–178
- Thompson, R. (2005) 'In Search of Memory Traces.' Annual Review of Psychology 56, 1-23
- Toth, J. & Reingold, E. (1996) 'Beyond Perception.' In Underwood, G. (ed.) Implicit Cognition New York: Oxford University Press
- Turner, C. (2006) 'Subject Leaders in Secondary Schools and Informal Learning: Towards a Conceptual Framework.' School Leadership and Management 26 (5), 419-435
- TWAM (Tyne and Wear Archives & Museums) (2008a) Community and Outreach [online] available from <http://www.twmuseums.org.uk/communityoutreach/> [2 March 2010]
- TWAM (2008b) *Be a Part of the Laing Art Gallery* [online] available from http://www.twmuseums.org.uk/laing/getinvolved/ [2 March 2010]
- TWAM (2008c) *Welcome to the Laing Art Gallery* [online] available from http://www.twmuseums.org.uk/laing/about/ [5 January 2012]
- TWAM (2008d) Welcome to the Shipley Art Gallery [online] available from http://www.twmuseums.org.uk/shipley/about/ [5 January 2012]

- TWAM (2013a) Collections summary [online] available from <http://www.twmuseums.org.uk/laing-art-gallery/collections/collectionssummary.html> [29 March 2013]
- TWAM (2013b) Collections summary [online] available from <http://www.twmuseums.org.uk/shipley-artgallery/collections/collections-summary.html> [29 March 2013]
- Underwood, G. & Bright, J. (1996) 'Cognition With and Without Awareness.' In Underwood, G. (ed.) *Implicit Cognition* New York: Oxford University Press
- Uttal, W. (2011) *Mind and Brain: A Critical Appraisal of Cognitive Neuroscience* Cambridge MA: MIT Press
- Valdés, B., Catena, A. & Mari-Beffa, P. (2005) 'Automatic and Controlled Semantic Processing: A Masked Prime-Task Effect.' Consciousness and Cognition 14, 278–295
- van Dijck, J. (2007) Mediated Memories Stanford CA: Stanford University Press
- Verdaasdonk, H. (2003) 'Valuation as Rational Decision-Making: A Critique of Bourdieu's Analysis of Cultural Value.' *Poetics* 31, 357–374
- Vergo, P. (ed.) (1989) The New Museology London: Reaktion Books
- Vygotsky, L. (1978) *Mind in Society: The Development of Higher Psychological Processes* Cambridge MA: Harvard University Press
- Wagenaar, W. (1986) 'My Memory: A Study of Autobiographical Memory over Six Years.' Cognitive Psychology 18, 225-252
- Weinert, S. (2009) 'Implicit and Explicit Modes of Learning: Similarities and
 Differences from a Developmental Perspective.' *Linguistics* 47 (2), 241-271
- Welzer, H. (2010) 'Re-Narrations: How Pasts Change in Conversational Remembering.' *Memory Studies* 3 (1), 5-17
- Wheatley, T. & Wegner, D. (2001) 'Automaticity of Action, Psychology of.' In Smelser, N. & Baltes, P. (eds.) *International Encyclopedia of the Social & Behavioral Sciences* Oxford: Elsevier Science
- Whitehead, C. (2012) *Interpreting Art in Museums and Galleries* Abingdon, Oxon: Routledge
- Whitman, D. (2011) Cognition Hoboken NJ: John Wiley & Sons
- Widdowson, H. (2007) Discourse Analysis Oxford: Oxford University Press
- Wiggins, S. & Riley, S. (2010) 'QM1: Discourse Analysis.' In Forrester, M. (ed.) Doing Qualitative Research in Psychology: A Practical Guide London: Sage Publications, 135-153

- Wuggenig, U. (2007) 'Comments on Chan and Goldthorpe: Pitfalls in Testing Bourdieu's Homology Assumptions Using Mainstream Social Science Methodology.' *Poetics* 35, 306-316
- Ziori, E. & Dienes, Z. (2007) 'How Does Prior Knowledge Affect Implicit and Explicit Concept Learning?' *The Quarterly Journal of Experimental Psychology* 61 (4), 601-624