Recoding Heritage Sites as Non-Formal Learning Institutions: enabling the self-directed adult learner

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The aim of this research is to examine the provision of education at heritage sites for the self-directed adult learner (SDAL) as perceived by heritage educators themselves. This doctoral research makes two original contributions. It proposes an alternative typology of learners in the heritage sector by redefining SDALs as heritage visitors to non-formal learning institutions. In exploring this recoding through the use of a unique learning model, explored in partnership with heritage educators in a modified World Café workshop format, the research offers a second original contribution.

The data reported demonstrate that, while individual heritage educators are enthusiastic to support the SDAL, the dominant professional narrative perceives such visitors as informal learners. Literature suggests that, despite the fact that the majority of institutions foreground their educational remit, their self-perception remains defined as guardians of heritage.

The research workshops exploring the perspectives of heritage educators illuminates the distinctions in missions between the institutional guardianship and preservation of cultural heritage and their educational role, which is focussed on schools and engaging with marginalised communities. The thesis addresses the questions as to the current institutional recognition of the needs of the SDAL amongst participant institutions and the extent to which such needs are supported and met through current practice.

This doctoral thesis challenges the prevailing assumption that heritage education for the SDAL is principally informal learning. Instead, it concludes that a redefinition of educational provision in the light of contemporary literature suitable for a digital age is required. In doing so, this thesis contributes to the recoding of heritage institutions as non-formal learning providers for self-directed adult learners. It also supports the notion that inter-professional dialogue between different educational practitioners has significant value.

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For Jeanette, for whom my heart will always beat.

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I began the doctoral research process aware of the maxim that 'PhD' might stand for 'possibly heralding divorce' and it is with humility and immense gratitude that my relationship with Dr Jeanette Atkinson has survived a second round of the process. She is my guide, companion, intellectual stimulus and best friend, the woman I love more than anyone in the world. Her patience and understanding have sustained me. Thank you darling. I am grateful to Professor Kevin Burden for his scholarship, intellectual support and friendship over the last 15 years which has been more inspirational then I suspect he realises. The enduring friendship of Louise Priestman, whose ability to overcome whatever life throws at her is truly inspiring, has helped immensely. Thank you, Mum, for all your prayers and support.

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Simon Paul Atkinson - Abingdon, September 2018

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Glossary

Terminology or Abbreviation	Definition
Andragogy	Originally defined as the method and practice of teaching adult learners, now more commonly taken as synonymous with degree of self-directed or autonomous learning (Knowles, 1984).
Constructivism	The belief that learning occurs when learners are active participants in the process of meaning and knowledge construction as opposed to passive recipients of information (Dewey, 1997). Its social constructivism formulation also suggests that learning is a social act (Vygotsky, 1980).
Heutagogy	This is the study of self-determined learning. An attempt to define the characteristics of andragogical learning without the age limits imposed by 'adulthood' (Blaschke, 2012).
Formal Learning	Education that is institutionalised, intentional and planned through public organisations and recognised private bodies and, in their totality, make up the formal education system of a country (UNESCO Institute for Statistics, 2012).
Gerontology	Educational gerontology refers to the needs of elderly learners (Purdie and Boulton-Lewis, 2003).
Incidental Learning	Various forms of learning that are not organised or that involve communication not designed to bring about learning (UNESCO Institute for Statistics, 2012).
Informal Learning	Forms of learning that are intentional or deliberate but are not institutionalised (UNESCO Institute for Statistics, 2012)

Pedagogy	Originally defined as the method and practice of teaching children, now more commonly taken as synonymous with teacher centred learning approaches (Genovese, 2003).
Non-formal Learning	Education that is institutionalised, intentional and planned by an education provider (UNESCO Institute for Statistics, 2012).
SDAL (Self-Directed Adult Learner)	Derived from Knowles' definition of a self-directed learner, assumed to be an adult (M. Knowles, 1975a). An intentional learner who is self-motivated, sets their own learning goals and has access to all the required resources for their learning.

Table 1 – Glossary

Chapter 1: Introduction

by the time a visitor arrives at the front door, the nature and quality

of the visitor experience have already been determined to a large

degree. (Falk and Dierking, 2000, p. 179)

If you get an adult in, who's come to visit, and they've just come in

on their own, they want to learn something, how do we find out

about it? That's the thing, we've got all the information about what

we do provide, to point them in the right direction, but then how do

we find out afterwards what they've learnt? (Participant Comment

B05)

Focus of Research

The quotations that open this introductory chapter define, both in the language of heritage educational scholarship and of practice, the challenge facing educators working in museums, art galleries, historic houses and sites. I am sympathetic to their difficulties and the obstacles they face despite not being counted amongst them. This research is the product of professional encounters with such heritage educators; practitioners who attended workshops designed to explore institutional recognition and preparedness for the needs of self-directed adult learners (SDAL) amongst the visitors to their diverse heritage venues. Their willingness, even enthusiasm, to engage with a higher education learning design model shared through workshops, despite their inability to clearly distinguish the needs of SDALs, led me to revisit the literature. There is a need to revise much of the language of education in the light of the digital age we now live in, to move beyond casual vernacular usage towards a more focussed scholarly use, in order to confront the particular challenges of SDALs in heritage contexts.

Personal Context

As a child taken to museums and art galleries on school and family outings, it was apparent that heritage venues were amazingly rich sites of potential learning. Like many, once the formal compulsion to visit disappeared, I stopped visiting as a

teenager. After 25 years in higher and professional education as an academic developer, educational technologist and senior manager, my experience of visiting heritage institutions as a Self-Directed Adult Learner (SDAL) has been one of feeling unsupported. In an effort to identify whether that feeling was a personal failing, a lack of institutional support or a combination of both, this research emerged.

Throughout this research I have been employed as an Associate Dean of Learning and Teaching at a British University and have never worked for any heritage institutions directly. I have contributed to a number of projects including designing a school orientated First World War exhibition in collaboration with the University of Oxford's Faculty of History and have also engaged with the Museum Computer Group's (MCG) innovation projects, assuming some responsibility for the i-object project (2010-2012), an exploration of the technologies required to 'give a voice to artefacts'. My most direct engagement with heritage has been with the work of archivists through my co-leadership of the Digital Artefacts for Learning Engagement (DiAL-e) project. This was a Joint Information Systems Committee (JISC) funded initiative to generate take-up materials for a defined newsfilm archive, which evolved into a broader framework for mobilising archive materials (www.dial-e.net).

In my professional role as an educational developer there is a requirement to balance the similarities and differences in the way in which formal learning, nearly always knowledge based, (school classroom and university seminar) and informal learning, often affective (values) or psychomotor (manual) based, is reflected upon. Academics, when asked to reflect on their own educational experiences, do so by differentiating between the knowledge acquisition in the context of no, or little, prior knowledge, typified in their formal learning experience, and the richer experiential, situated learning in an unfamiliar skill, ability or disciplines (Boud et al., 1985). Effective learning design in higher and professional education requires flexibility and structure to allow students to personalise and customise that experience. There is a need for foundational or contextual knowledge. Students also need to be able to build on what has been delivered from their own reservoir of experiences and to develop that reserve. They need to 'feel' that the knowledge means something, that they are fleshing-out a clearer image of a challenge or problem.

To 'feel' that the learning matters is what makes the majority of adult learning both effective and 'real' (Maehr and Braskamp, 1986). In the last three decades there has been a growing interest in situated and real-world learning (Lave and Wenger, 1991; Seely-Brown et al., 1989), which has more recently morphed into the concept of ubiquitous learning (Cárdenas-Robledo and Peña-Ayala, 2018) in response to increased digital connectivity. I acknowledge a pattern, from the humanistic ideals for the value of education in the 1960s (Freiberg and Rogers, 1994), to its liberational dimensions (hooks [sic], 1994; Freire, 1996) and into the progressive notions of sociocultural learning in the 1970s (Vygotsky, 1980) inferred from pedagogy to all forms of education. These trends, influenced by increasing globalisation, interconnectivity, and technology have radically transformed individual and collective epistemologies (Schroeder, 2018). Post-compulsory formal education in post-industrialised democracies has gradually moved away from being a school-factory for producing citizens as nascent adults towards being a socially and professionally relevant incubator unit (Hebert and Abdi, 2012).

Context of Research

The principal focus of this research has been on adult learners accessing heritage. Even a cursory exploration of UK official population data from 2016 (ons.gov.uk) shows that the number of under 19s (15,455,800) represents 23.5% of a population while adults (50,192,200) represent 76.5% of the total (65,648,000). The most recent official national UK data for adult learning date to 2010 and suggest that up to 70% of adults (aged 16-69) participate in some form of learning activity (BIS, 2012). Fifty-one per cent of these suggest that they are enrolled on some form of taught learning, 52% undertaking self-directed learning, 64% vocational learning and 14% non-vocational. The overlapping categories underlie the complexity of the data which also identify self-directed learners and taught learners to each represent 17% of adult learners with 35% combining the modes of study. More interesting than the headline numbers is the categorisation of adult learners. The resultant segmentation is intriguing and will hopefully be sustained in future studies (See Table 2). Although the report, now somewhat dated, contains a great deal of income and qualifications data associated with these segments, it warrants the highlighting of the 'motivational factors' of the

report's classifications of adult learners in order to illustrate the diversity in classifications of adult learners across the sector.

Department for Business, Innovation and Skills: Segmentation	Summary of motivation factors
Pro-learning Go-Getters (20%)	Learning is seen as an investment and holding a belief that the skills required for work can be learned in a classroom. Motivated by a desire to improve job performance and job satisfaction. Barriers to participation include lack of availability of the right courses, the costs associated with learning and being able to fit learning around caring responsibilities.
Pro-learning Planners (18%)	Also identifying that learning is an investment in the future but feeling particularly time-poor. Barriers in fitting learning around caring responsibilities.
Distracted Advocates (21%)	Belief in the need to keep improving their knowledge and skills and see learning as an investment. Motivations for learning are job-focused: to improve their job performance or to get a promotion. Barriers are an inability to fit learning around their work commitments and do not want to give up their free time for learning.
Fearful of Failure (11%)	Likely to learn if it would help build their confidence and enable them to help their children. Whilst generally agree that learning is fun, they lack the confidence to learn on their own and worry about keeping up with other learners.

Work a Priority before Learning (7%)	Negative about learning: do not view it as fun, nor necessary for work and nor an investment in the future.
Means-To-Enders (9%)	Lack the confidence to learn on their own and feel they are too old to learn. Belief that the skills required for work cannot be acquired in a classroom. More likely to perceive learning as being only worthwhile if there is a qualification at the end of it.
Too Old to Learn (8%)	Feel that learning is not for people like them and prefer to spend their free time doing other things. Barriers is age.
Learning Avoidant (7%)	Disagree that learning is fun or that they need to keep improving their knowledge and skills. Barriers are self-declared lack of interest in learning and their age.

Table 2 - BIS-UK Segmentation of Adult Learners (2012)

There is an idiosyncratic approach to classifying learners in the heritage context. Well-respected UK based 'cultural strategy and research agency' Morris Hargreaves McIntyre published a report based on focus group interviews across 50 UK based institutions to evaluate the profiles of heritage visitors (MHM Ltd, 2007a). Although the structure of the questions asked of visitors are not provided, the report concludes that there are "four key drivers: Social, Intellectual, Emotional and Spiritual" for visitors (2007a, p. 27). Although the report suggests that over a third of visits fall into the 'intellectual' category, this includes, academic interest, hobby interest, self-improvement and stimulate children. It is impossible from this report to deduce any significant data for SDAL. The same year the company produced a report entitled 'Culture Segments' (2007b) in which eight divisions of visitors described as enrichment, entertainment, expression, perspective, stimulation, affirmation, release, and essence are defined. Although once again there is no explicit isolation of the adult learner although three segments share learning as a predisposition, namely expression, perspective and affirmation. The report declares,

Culture Segments is designed to be more subtle, granular and
sophisticated than existing segmentation systems. This is because it is
based on people's cultural values and motivations. These cultural
values define the person and frame their attitudes, lifestyle choices
and behaviour. (2007b, p. 3)

These segmentations clearly have benefit for heritage strategies in identifying possible audiences, but it remains unfortunate that the distinct needs of the SDAL are neglected. Some visitor research makes use of commercial classifications such as ACORN (https://acorn.caci.co.uk/) and another makes use of in-house customisations posited by market research companies such as that cited above. ACORN affords institutions with a means to segment adult learners in more refined categories than traditional the National Readership Survey (NRS) ordinarily presents, namely A-B-C1-C2-D-E classifications, with A denoting 'upper middle class' through to E identifying 'non-working' (http://www.nrs.co.uk/). ACORN produces 62 segmentations based on postcodes, education, employment and a range of social factors. On this basis the share of adult visitors who visited a museum or gallery in England in 2016/17,

identified by the annual Taking Part Survey carried out by the UK Department of Culture, Media and Sport (DCMS, 2017), and classified by ACORN can be represented as;
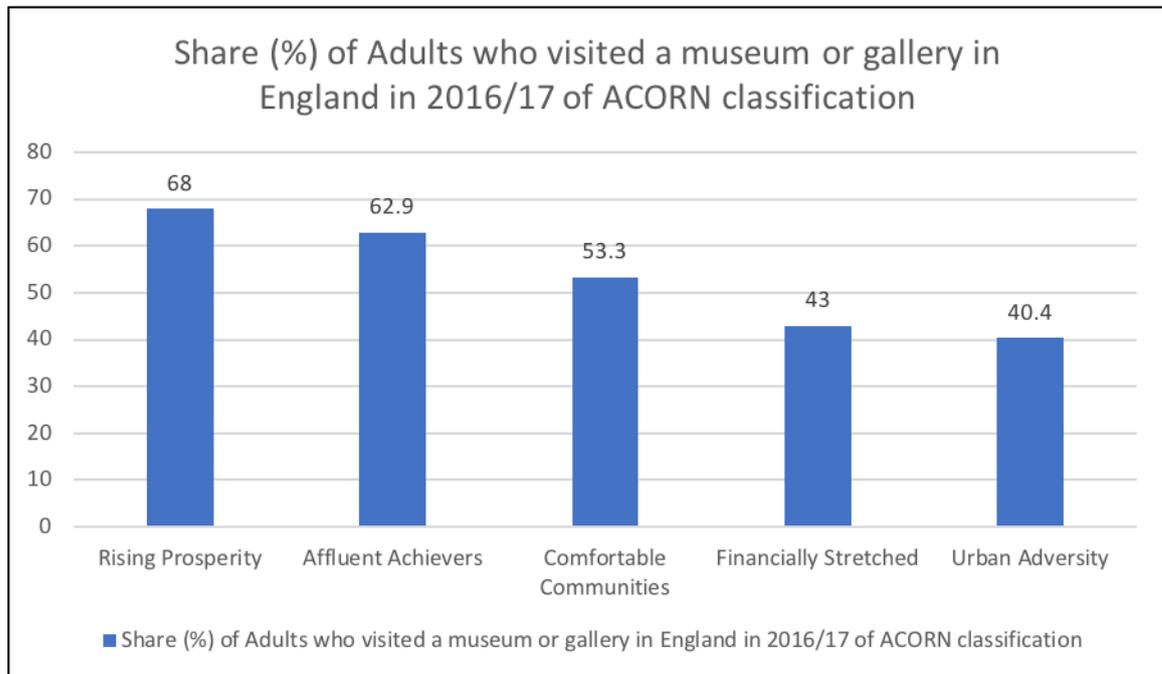
Figure 1 - Share of adults who visited a museum or gallery in England in 2016/17, by ACORN classification (Source: Taking Part Survey - DCMS 2017)

Alongside such data it is interesting to compare an example of classifications used by an individual institution. Take the Museum of London for example, which shared at a public workshop held during the Museums and Heritage Show 2018, that it segments its adult visitors as;

- Self-developers
- Experience seekers
- Cultural connoisseurs
- London Insiders
- Tourists
- Day Trippers

The commercial ACORN customer segmentation categories and an individual heritage institution's localised needs for visitor data appear incompatible. This represents a major challenge for researchers in terms of aggregating institutional, local, regional

and national data to any meaningful degree. The best, and most recent, national picture possible for adult motivation for visiting museums relies on the Taking Part Survey which is broad in its classifications;

Have been to a museum or gallery in last 12 months?	
In your own time	96.9
For paid work	3.2
For academic study	2.7
As a part of voluntary work	0.9
For some other reason	0.2

Table 3 – Adults' motivation for visiting a museum or gallery (taking Part Survey 2016/17)

What is striking is that with the exception of the bespoke institutional classifications, exemplified above by Museum of London, the focus on the Taking Part data is on 'where' people come from (geographically or socially), less on 'why' they are there. Reconsider the segmentation of adult learners produced by the National Adult Learner survey 2010 (BIS, 2012) and imagine how meaningful visitor data might be, if it were possible to establish at the time of an adult's visit to a heritage institution their motivational, as well as their social, classification.

Alongside the unknown motivations amongst adult learners there is relatively little attention paid to the patterns of their behaviour in museums, which although not the primary focus of this research, also provides a backdrop to my research questions. A typology of four different visiting styles using analogies from nature strikes me as helpful. This French study contrasts the 'ant' visitor who prefers a linear path and spends extensive periods studying almost all the exhibits, the 'fish' visitor who focusses on positioning themselves in the centre of the room, the 'butterfly' visitor who changes direction, flitting from display to display, and finally, the 'grasshopper' visitor who demonstrates a preference for some preselected artefacts or displays, spending time observing these while ignoring others (Veron and Levasseur, 1989). If we contrast any segmentations or classifications of adult visitors and examine adult human interactions with artefacts, we undoubtedly get a rich tapestry of motivations

and personal contexts through which evaluation of the learner-visitor experience can be seen. Clearly, to adopt a word form from contemporary health studies that suggests that 'a calorie is not a calorie', a visitor may not be a visitor, they may be a 'Pro-learning Planner', 'Affluent Achiever', 'Self-Developer' visiting in their' own time' to use just four potential classifications.

There is a need for a greater degree of evaluative data on the adult learner-visitor to heritage sites. Research consistently shows that museums succeed in changing perceptions and attitudes and stimulate the social dimension of museum visiting (Hooper-Greenhill, 1994). In a time of evidence-based policy formulation and funding decisions, heritage institutions need to legitimise themselves by attendance figures and economic return. As in higher education, the heritage sector remains cautious with the focus on performance measurement. There is a palpable fear that such a focus on the measurable takes away the possibility of taking risks and extending the creative boundaries to the detriment of the communities the institutions seek to serve (Kelly, 2004) .

Well-designed visitor studies, when properly interpreted, can encourage museums to adjust exhibit design to stimulate learning encounters. Museums have reported significant improvements in augmented attention and self-directed learning of children and adults (Screven, 2004) as a result of in-process adjustments made to exhibit display and interpretation. In exploring the literature to lay the foundation for answering my research questions the grey literature, the websites and trade journals from the Museums Association, ICOM and UNESCO, proved as insightful as the academic literature. Library searches on the University of Leicester's combined referencing search illustrate a clear bias over the last 20 years towards children's education in the heritage sector. As of June 2018, such a search filtered for articles in peer-reviewed journals in arts and humanities, and social sciences between 1998-2018 revealed;

Search terms	Results
Adult AND Museum AND [Learning/Education]?	39,887
Children AND Museum	87,508

Adult AND Heritage	40, 097
Children AND Heritage	99,570

Table 4 - Literature search results

Whilst clearly not a scientific or systemic representation of the literature, such results do support the notion that a great deal of attention is focussed on children's learning in heritage sites over that of adults, despite the demographic imbalance that this represents.

In 2012, UNESCO issued a glossary of educational terms (UNESCO Institute for Statistics, 2012). This document made it clear that they perceived there to be four categories of learners, three intentional and one incidental. Of the three intentional categories the distinction between them was the degree of structure imposed, or offered, to the learner. The well-established convention of formal learning as being defined as compulsory and higher education was unchallenged. The other two categories of intentional learning differ from previous definitions and contemporary usage in some sectors. UNESCO defined non-formal learning as intentional and minimally structured, ordinarily without formal assessment, and informal learning as intentional but without any structural support. Heritage institutions, particularly museums, galleries and historic properties, being intensely curated knowledge collections, do not lack the support required that would qualify them as sites of informal learning. As a consequence, we should conceive of heritage institutions as non-formal learning institutions for the intentional learner, and incidental learning sites for the casual visitor. This potential re-coding of heritage sites prompts three central research questions:

1. How do heritage institutions interpret the needs of self-directed adult learners?
2. What support do self-direct adult learners need and are these being met by heritage sites?
3. Is there a benefit from interdisciplinary dialogue between educators from the higher and heritage sectors?

Data Collection Context

These three questions were designed to confront what is perceived to be a lack of scholarship and practice in support of the SDAL from within museum studies and heritage sector more broadly.

Being principally a higher education professional, I approached the research collection as an 'outsider'. Inviting heritage educators to engage with the process of generating data that would answer the research questions, it was stated clearly upfront who I was, and who the research participants needed to be. It was made clear that what I had to share had its origins in a formal higher education context, based on the broad principles of adult education, and that participation would have potential benefits for both parties. Engagement through the workshops provided participants with networking and reflective opportunities to advance their own continuous professional development. Both workshops were promoted through targeted, professionally focussed, online mailing lists. In the case of one of the two workshops, a full-day held in Birmingham, participants were recompensed only with coffee and biscuits and a catered lunch. The second workshop, held as part of an international conference, required no recompense offered by me personally. No travel expenses or attendance fees were paid to participants. Research participants were made aware of my extensive experience in programme design and management, my scholarship and experience. In seeking to provoke, inform and inspire all at the same time as capturing data to answer the research questions, it was also essential to ensure that the process was of professional value to participants. One London participant emailed subsequently saying "your excellent workshop was an inspiration", so I believe I met the professional development expectations of participants.

Structural Notes

A note on the structure of research participants' quotations, drawn from annotations and conversations, is also necessary. The majority of these quotes occur in the analysis chapter but have also been selected to begin each chapter and therefore warrant clarification at this point. I undertook some training offered to postgraduates at the University of Leicester in Oral Histories early on in my studies and had already some experience of transcribing workshop conversations as part of the DiAL-e project (2006-

2008). No formally defined transcription model was adopted; however, the need for consistency is represented in the quotations used (Holstein and Gubrium, 2003). Pauses, and incorrect tenses such as saying 'learn' meaning 'learned', have been corrected and are indicated by the use of parenthesis within quotations. Insertions within square brackets are my own contextual clarifications. Braces, or curly brackets, denote the removal of an identifying name, place or institution. The use of three dots, denotes a pause or verbal punctuation, hesitation or repetition rather than a deletion. Punctuation of spoken conversations, when to use a comma or a full stop, is always a challenge and is a matter of judgement. Such punctuation has been added to the transcriptions only where it serves to improve the legibility of the quotation. The attribution of annotations uses the notation of letters and numbers as outlined in Chapter 4. The quotations taken from plenaries with participants are not attributed to individuals and instead are noted as individual contributions with either a B representing Birmingham participants or an R for Relevance conference participants, the numbers indicate the sequential coding of contributions. Readers should also note the all quoted annotations are taken as written and any spelling or grammatical errors are left untouched.

My established scholarship practice has been to avoid footnotes and endnotes whenever possible. This in the belief that anything worthy of incorporation should be integrated into the body of the text. Likewise, no extensive documentary evidence is appended other than my information for participants sheets and the consent forms they were asked to complete as this is standard practice. Redacted transcripts are available.

A further structural notation is required with reference to the use of data submitted in languages other than English. Despite the invitation to participants, noticeably at the international workshop held in London as part of the Relevance 2017 conference, to provide their annotations in English a number of participants made contributions in other languages. Two of these participants chose to share their data with me and I accepted them on the basis that I am familiar with both languages, having spent childhood years in the Netherlands and in Geneva, the French-speaking part of

Switzerland. The annotations submitted in Dutch and French, therefore, have been incorporated into the dataset with a high degree of confidence.

Research Ethics

This research was subject to oversight mandated by the University of Leicester Code of Practice for Research Ethics and University Research Code of Conduct (https://www2.le.ac.uk/institution/ethics/approval). Guidance suggests nine principles, expanding on the six criteria suggested in the Economic and Social Research Council's Framework for Research Ethics (www.esrc.ac.uk). The ESRC states that research should be carried out with the duties of researchers being that they;

- are ensuring quality and integrity of the research;
- will seek informed consent;
- will respect the confidentiality and anonymity of the research respondents;
- will ensure that participants will participate in the study voluntarily;
- will avoid harm to participants; and
- can show that the research is independent and impartial

The steps taken to take account of these foundational principles, and the more detailed nine points of compliance included in University of Leicester's Ethics Policies that guide this research, are outlined below.

1) Researchers must respect the rights, interests, and dignity of participants and related persons in research.	All research participants and correspondents were dealt with in a professional manner based on my 25 years' experience of working with academics, students and other professional persons.
2) Research must be undertaken in accordance with any relevant common law or legislation.	No legal implications were envisaged for the research and all venues were public facilities that complied fully to the law with respect to Health and Safety legislation.

3) Informed consent should normally be obtained from participants.	All data capture instruments included declarations as to the nature of the research purpose and guarantees for anonymity presented to respondents and participants up front.
4) Consent itself should be given freely, without force or coercion.	All invitations to participate were presented online fora and no direct approaches were made to encourage participation.
5) Researchers have an obligation to protect research participants wherever possible from significant harm.	By organising workshops in public spaces, one through a commercial venue (Birmingham) and one at an International Heritage Conference (London); and by guaranteeing anonymity, no participants were ever put at risk.
6) The confidentiality of information supplied by research participants and any agreement to grant anonymity to respondents should be respected.	All requirements to ensure anonymity and the security of data sources followed good practice. The coding of participants annotations and spoken contributions is detailed in Chapter Four.
7) All research involving human participants, whether undertaken by academic staff, other university staff, or students, is subject to ethical approval.	Full ethics approval was applied for and granted through university processes.

8) Both the design of research and its conduct should ensure integrity and quality.	I believe this was achieved. Relative strengths and weaknesses in the research methodology are explored but the integrity of the research cannot be questioned.
9) Research is to be undertaken subject to the principle of academic independence. Where any conflicts of interest or partiality arise, these must be clearly stated prior to ethical approval being obtained.	My established practice as an academic developer was declared to all participants and respondents at the outset of any engagement. My professional perspective was therefore fully disclosed.

Table 5 - Responses to University of Leicester's Ethics Processes

The data collection processes were complete prior to the introduction of European legislation under the banner of the General Data Protection Regulations (GDPR) coming into force on 25th May 2018.

Structure of Thesis

The thesis contains nine chapters each containing clearly identified sub-headings. This opening introductory chapter serves to contextualise the research, declaring my own personal context, establishing the real-world professional context, at the interface of higher education and heritage education practice. There has also been a brief contextualisation of the research in the light of existing literature. The chapter then outlines briefly the nature of the data collection and the context in which it was captured, before providing some structural notations to support the reader. An explanation of the research ethics processes followed then completes the chapter.

Chapter two explores the literature base relating to adult learning in higher and heritage educational practice. This requires an exploration of the distinctions made within education, regardless of sector, between different generations of learners. It then presents the proposition that heritage education should be seen as a form of

non-formal learning and clearly delineates a typology of educational practices to support this assertion. There follows an exploration of the nature of adult learning in order to establish a working definition for the Self-Directed Adult Learner (SDAL).

Chapter three builds on the working typology articulated in chapter two, examining the classifications of visitors and learners in a heritage context and discussing salient literature pertinent to those researchers who have attempted to model or illustrate heritage learning. This chapter ends with a brief overview of the alignment of heritage education with the current dominant educational perspective, that of constructivism.

Chapter four builds on this established literature base and details and justifies the use of my own scholarship, the Student-Owned Learning Engagement (SOLE) model (2011a, 2011b, 2013a), as a framework for data collection. In exploring the opportunities and constraints presented by disciplinary language, some of the complexities of terminology are further elaborated.

Chapter five explores the methodology and data collection. It identifies the research approach undertaken, the design of data collection workshops and the way in which the SOLE model was presented to workshop participants as a paper-based model that they were invited to annotate. The chapter then outlines the nature of the data collected and an explanation of the coding approach including an explanation of use of the computer assisted qualitative data analysis software (CAQDAS), in this instance NVivo10 for Mac.

Chapter six goes on to provide an analysis of the data collected through the annotations made during workshops. The four themes that emerge through initial data analysis; participants' impressions of the SOLE Model and its applicability to their context; their reactions to workshop format; conflicts over disciplinary language; and interpretations of knowledge and learning; then serve as lenses for further analysis.

Chapter seven makes use of these four themes to provide a validation process of the data by way of a recorded and transcribed plenary session at each workshop. This further analysis draws on the differences and similarities between the two workshop contexts, concluding that there are clear shared professional concerns across heritage professionals.

Chapter eight provides a discussion of the two distinct contributions that this research makes. Firstly, its advocacy for recoding of heritage education for the SDAL as a form of non-formal education that requires a suitable institutional response to be properly supported. Secondly, I assert that models of learning design for non-formal and formal learning contexts should be seen as supportive of this potential response. I conclude with a modification to the SOLE model as an instrument for evaluation purposes that has emerged as a direct result of the research undertaken.

The ninth, and final, chapter serves as a conclusion. After initially summarising the propositions set out in the research questions in the light of the literature and data collected there then follows a review of emergent practices and future changes within heritage education. I conclude with suggestions for future research and reflections.

My research is the product of an inter-professional conversation that higher education and heritage sites need to develop further. Given that the recent *Mendoza Report: an independent review of museums in England* reported that "a notable majority of respondents (85%) proposed that museums and galleries are *primarily places* for education and learning" (2017, p. 99) (my emphasis), a greater focus amongst educational researchers should be paid as to the truth of this proposition for all learners, notably the SDAL. This introduction has articulated some of the intentions and constraints under which the research has been carried out. I have positioned my research questions in the light of pre-existing literature and have also outlined my personal motivations and context for undertaking this research. The next chapter will establish the literature framework the underpins this endeavour by exploring adult learning in general and in the heritage context.

Chapter 2: Adult Learning in Higher and Heritage Education

a free soul ought not to pursue any study slavishly; for while bodily labours performed under constraint do not harm the body, nothing that is learned under compulsion stays with the mind. Plato The Republic [536e]

What's stood out for me, was that it was written in that language, which I'm not used to, the bit, the element that stood out for me was assessment, because I don't think we do that. Perhaps trying, with something like this diagram, and the GLOs and so on, to assess what the impact of learning has been. We tend to go straight to feedback. How was it for you? Did you enjoy it? Did you think you learned anything? It's straight into what we call evaluation or feedback and missing that assessment theme. (B25)

In the introduction, I outlined the research context and questions, and the challenges that they pose. The nascent demand for adult learning and the role that heritage sites are expected to play in fulfilling that need requires further elucidation. This chapter will review the key literature that underpins and supports this research. There is a great deal of educational terminology that is unhelpful. By exploring the differentiation cited in the literature between the child and the adult education, then the distinctions between different modes of learning, I aim to provide clarity. There then follows an examination of the UK heritage sectors' responses, from an Anglo-American perspective, first to theory and later through the development of distinct models of learning aimed at the heritage sector.

Pedagogy, andragogy, heutagogy and gerontagogy

By reviewing a number of the fundamental assumptions regarding adults and their learning, I will draw out some of the fallacies contained in academics' use of the terms pedagogy and andragogy, more recently of heutagogy and gerontagogy, and then identify some of the tenants advocated by key thinkers in adult education. However, to begin, it is important to establish the point of perspective, since it is this that

determines what is seen as significant. This review is situated within the context of the 'Western' or 'Anglo-American', 'developed' or 'post-industrial' world, and also include French language publications.

The majority of literature relating to education is in the field of compulsory education, predominantly in English with the largest proportion from an Anglo-American perspective. Adult education has become more popular as a focus of educational enquiry since the 1970s, reflected in the popularity of authors and evocative titles such as Malcolm Knowles's *Andragogy in Action: Applying Modern Principles of Adult Learning* (1984), Peter Jarvis's *Towards a comprehensive theory of human learning* (2008), Jack Mezirow's *Learning as transformation: critical perspectives on a theory in progress* (2000) and Robert Kegan's *The evolving self problem and process in human development* (1982), amongst many others.

Contemporary educational literature makes frequent use of catch-all terminology, seldom defined and contextualised. An example of this is the use of pedagogy, andragogy and, more recently, heutagogy (Hase and Kenyon, 2000). For the purposes of this discussion, it is necessary to define these terms. Just as academics seek to follow in the footsteps of the natural sciences, so Greek etymology is also popular amongst social scientists. Pedagogy, the anglicisation of the French pédagogie, itself derived from the Greek 'paidagōgos' and loosely translated as "to lead a child", has been contrasted with its adult terminological twin, that of andragogy. The earliest Western European usage of the term pédagogie dates to the 16th century although the term is most closely associated with the work of Swiss developmental psychologist Jean Piaget (1896-1980). Indeed, it is often to see pedagogy and Piaget as almost synonyms despite his minimal use of the term and preference for focussing on 'genetic epistemology', a now contentious notion (Genovese, 2003). The origination of the language for 'leading a man' (andragogos) is attributed to Alexander Kapp (1799–1869) and popularised by American adult educator Malcolm Knowles (1913-1997) at which point the distinction between the two terms appeared self-evident; pedagogy was the teaching of children, andragogy the education of adults.

Since Knowles's popularisation of the term (M. S. Knowles, 1975) , others have sought to distinguish further between the degree of instruction required for adults compared

to children, and the term 'heutagogy' (Hase and Kenyon, 2000) emerged to indicate that adults are best served when supported towards self-directed learning activities (Blaschke, 2012). There is a fourth term used in the context of classifications of learners, that of gerontagogy; which could be defined as the education of the older adult, the 'elderly', although this presents obvious difficulties (Lemieux, 1995). What constitutes 'the elderly', is a shifting target. While of distinct interest to social policy makers and to psychologists, the usefulness of the very concept in classifying experiences and approaches to learning is questionable (Kornbeck and Jensen, 2012). The distinctions between these terms are sometimes arbitrary and require contextualisation.

Pedagogy refers to the theory and practice of teaching, and its consequences, in the learning amongst its recipients. Various theories of learning all place different emphasis on facets of the teacher-learner interaction and the extent to which that interaction is structured. Whether the concern is for the societal purpose of instruction, the political nature of a hidden curriculum, or the degree of societal challenge that is enabled through a critical pedagogy, there is a common thread of the presence and direction of the teacher or instructor. Paralleling emerging fields of communication theory, Anglo-American pedagogy has taken account of the changing societal expectations of interpersonal communications with a growing interest in promoting egalitarian dialogue. This is most clearly reflected in the progressive education movement which sought to redefine the role of the teacher in the classroom from 'sage on the stage to guide on the side', positioning the learner at the centre of the learning experience (King, 1993). A formal curriculum for the most part remained however, despite early efforts by American Helen Pankhurst (1886–1973) and Italian Helen Montessori (1870–1952) (Parkerson and Parkerson, 2014)

Piaget's insights into the developmental process of young children on the basis of scientific logic established him as a leading constructivist. His critics, expressing reservations of a lack of social contextualisation in his work, preferred Lev Vygotsky (1896-1934) as a proponent of development through cultural mediation. Those concerned primarily with adult education found momentum at a time when social change in the western world was reflecting on a social-constructivist model of learning.

The lack of attention given to the linguistic conventions and intellectual origins of concepts and ideas, the looseness in terminological usage is no more clearly illustrated in the often referenced Vygotsky and his descriptions of learners' 'zones of proximal development' (ZPD) (Vygotsky, 1978). Described as "one of the most used and least understood constructs to appear in contemporary educational literature" (Palincsar, 1998, p. 370), Vygostky's ZPD is used without reference to his own brief writings and nearly always in translation. The concept has proved powerful largely because it provides descriptive clarity rather than having any explanatory function (Minick, 1987). The re-interpretation of Vygotsky as a social-constructivist allowed education, as a field of study, to weigh in on the larger social debates around the revolutionary changes emerging in the 1960s and 70s, modelling new social roles. Humanist theories sought to redefine education's function from cognitivists' concern of skills acquisition, and social-constructivists for modelling new social roles, towards self-actualisation and intellectual autonomy. It is within this intellectual backdrop that Malcolm Knowles picked up the mantel of Eugen Rosenstock-Huessy (1888-1973), the German historian and social philosopher, who had championed the continuous education of the working man and focussed on the adult learner.

'Childhood'	'Adulthood'	'Senior Years'
Pedagogy	Andragogy/Heutagogy	Gerontagogy
Minimal experience	Developing experience	Experienced
Limited Social Context	Open Social Contexts	Contracting Social Contexts

Table 6 - Descriptions of Age-Based Educational Concepts.

Here, then, is the fallacy of pedagogy and andragogy. Rather than insisting on the use of categorisations based on age, children and adults, or conflating the terms with formal and informal patterns of learning, we are better served in thinking conceptually about the role of the teacher relative to the learner. When a teacher allows a class of 11-year olds to work in small groups or pairs and to choose a topic from the Classical world and build a model of whatever represents that topic, for example, a chariot, a temple; is that not an andragogical approach? When a university lecturer defines set

readings on some facet of Civil Law Procedures and runs a seminar around three predefined questions; is that not a pedagogical approach? A further complexity in the terminology is the most recent addition of the Greek etymologies, that of heutagogy, derived from the reflexive pronoun 'ἑαυτόν' (heauton) loosely translated as 'to lead oneself', which shares an etymological root with 'heuristic', enabling a person to discover or learn something for themselves. Surely, our 11-year olds are embarking on a journey of self-discovery, learning something for themselves. The 'classical' definition of the terms pedagogy, andragogy and heutagogy are in fact used to define different formal contexts for learning in which schools practice pedagogy, adult education reflects andragogical principles and doctoral research is a heutagogical practice (Luckin et al., 2011).

Let me share a personal example. Advised by my Cardiologist that I would not benefit from taking a statin drug; my GP disagreed and prescribed a statin. I went online and found, on YouTube, a Canadian Television documentary on statins and cholesterol which I found extremely informative. I chose to watch it to learn something I wanted, and needed to know, in order to make important decisions in my life. I made notes in order to cross reference sources and to follow up on further information. It was epistemic in purpose, I wanted to judge the validity of medical arguments for myself, a principle of heutagogical approaches. Building on my existing health knowledge (with no formal education in the area) there was clear meta-cognition and competency development occurring, features of andragogy. However, I was spoken to, talked at, and listened to a series of talking heads for ninety minutes who shared their knowledge with me, clearly a pedagogical process. The experience also reminded me of impending 'old-age' but I'll defer a discussion of any gerontagogical implications for another time. It is clearly no longer useful to define learning experiences meaningfully using the terms pedagogy, andragogy, heutagogy and gerontagogy; or to identify them as distinct and mutually exclusive modes of education.

Seeking a Definition of Adult Learning

Popularising the notion of 'andragogy', Knowles's work redefined the field of adult education from 'educating people' to 'helping them learn' (Knowles, 1950, p. 6),

moving in his published work through an exploration of informal adult education, notions of andragogy and self-directed learning. Following in the footsteps of Humanist Carl Rogers (1902-1987) at the University of Chicago, Knowles wrote his master's thesis in 1949 which proved to be the basis for a monograph entitled *Informal Adult Education: a Guide to Administrators, Leaders and Teachers* (1950). Alongside his work in documenting the history of the American adult education tradition, he went on to produce influential texts including *The Modern Practice of Adult Education*, published in 1970 (Knowles, 1980), *The Adult Learner* published in 1973 (Knowles et al., 2005) and *Self Directed Learning* (Knowles, 1975). Through these publications, his courses and public speaking he advocated an alternative viewpoint from the mainstream, that of the 'andragogical perspective' (Knowles, 1989, p. 21). It would be naive to credit Knowles as the originator of the concept of adult informal learning. Even before his first monograph was published in 1950, the English educator Josephine Macalister Brew had already published the first full-length treatment of informal education in 1946 (Brew, 2012). When Knowles came to reflect back on his career he identified the notion of 'informal' as a reorganising theme in his pursuit for a 'coherent and comprehensive theory of adult learning' (Knowles, 1989, p. 76).

Knowles did not begin with an articulated definition of adult informal education, rather preferring to suggest that social engagements, associations, clubs and well as programmes run by social groups, churches, unions and other groups should all be included. This is not a definition of self-directed learning. Rather Knowles focusses on the outcomes of adult learning, in which adults should;

- acquire a mature understanding of themselves;

- develop an attitude of acceptance, love, and respect toward others;

- develop a dynamic attitude toward life;

- learn to react to the causes, not the symptoms, of behaviour;

- acquire the skills necessary to achieve the potentials of their personalities;

- understand the essential values in the capital of human experience;

- understand their society and should be skilful in directing social change.

(1950, pp. 9–10)

Through his engagement with adult informal learning Knowles developed, or rather re-developed, the notion of andragogy for an English-speaking audience. Originally his premise was that there were four characteristics exhibited by adult learners, a fifth was added later, these are;

- Self-concept: As a person matures his self-concept moves from one of being a dependent personality toward one of being a self-directed human being;

- Experience: As a person matures he accumulates a growing reservoir of experience that becomes an increasing resource for learning;

- Readiness to learn: As a person matures his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles;

- Orientation to learning: As a person matures his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem centeredness;

- Motivation to learn: As a person matures the motivation to learn is internal.

(1984, p. 12)

This articulation of the concept of andragogy has its critics, me amongst them. The 'comprehensive theory' or model of adult learning Knowles was aiming for is rooted in the visible or discernible characteristics of the adult learner. Critics suggest this is descriptive but does not generate theory (Merriam et al., 2006), with others suggesting that what Knowles is conflating is his definitions of how adult learners actually behave and how they should behave (Hartree, 1984). This lack of a conceptual framework (Tennant, 2005) and a lack of contextualisation (Jarvis, 2008) also undermine the claim to theory development. A second criticism that gives rise to the accusation of a lack of theoretical purity is Knowles has built his argument on ideas from two opposing traditions, the humanist and the behavioural traditions. He uses a model of relationships derived from humanistic clinical psychology, after Carl Rogers (1959), but supplements these with elements based on scientific curriculum making

and behaviour modification (Skinner, 1954), this includes learners identifying needs, setting personal objectives and so on.

Knowles' third thematic contribution to the adult learning debate, beyond differentiating the needs of the adults from those of children by articulating the characteristics of adult learners and attempting to define andragogy, was his work on notions of self-directed learning. This facet of his work will be examined later following the elaboration of a working typology of learning in the next section.

Visualising a Typology of Learning

Much of what has been written in the field of adult education assumes that there are distinct characteristics of the adult learner. These characteristics are glimpsed in children as they develop and are then fully manifested in the adult. The fallacy of that position has been established. Just as the socially constructed notions of childhood and adulthood are not culturally neutral and not without modification over time (Cunningham, 2006), current interpretations of pedagogies and andragogies are equally contextually and temporally situated. Given the diversity in the vocabulary used across different disciplines, a visual representation of the field of adult education which is designed to clarify the field of enquiry is required and a justification follows in Table 8.

Intentional and Unintentional Forms of Learning

Whereas others have drawn a distinction between informal-intentional and informal-unintentional learning (Vavoula et al., 2009), I choose to follow the distinctions as defined by UNESCO (UNESCO Institute for Statistics, 2012). It is acknowledged that the UNESCO definition differs from earlier versions from other notable institutions, including the European Centre for the Development of Vocational Training (CEDEFOP) (2014), who retain a 2008 definition of informal learning (2008). There is also no explicit definition of learning forms provided by the International Council of Museums (ICOM). Furthermore, it is evident that the terminology in use within a broad range of educational contexts, usually without definitions, also differs from my intended use. These quotidian uses seek merely to create a binary opposition between formal and informal contexts of learning, conflating informal and incidental learning. Given

UNESCO's global role in education and culture the use of their most recent definition is appropriate.

Intentional and unintentional form of learning are differentiated purely on the basis of intent. Any conscious or deliberate action on the part of the individual in order to learn a skill or body of knowledge represents a form of intentional learning. Any learning acquired without such intention is unintentional. UNESCO categorises intentional and unintentional learning in the following way. The three forms of intentional learning are formal, non-formal and informal learning, while unintentional learning is represented as incidental, random or accidental learning (2012). Intentionality is significant. Formal education is defined as being institutionalised and intentional, structured by an acknowledged educational provider. Non-formal education, like formal education (but unlike informal), is also "institutionalised, intentional and planned by an education provider. The defining characteristic of non-formal education is that it is an addition, alternative and/or complement to formal education within the process of lifelong learning of individuals." (2012, p. 11). In contrast, informal learning is defined by UNESCO as forms of learning that are still intentional or deliberate but are not institutionalised and hence not organised or structured as in either formal or non-formal education. Their definition also continues "Informal learning may include learning activities that occur in the family, workplace, local community and daily life, on a self-directed, family-directed or socially-directed basis" (2012, p. 12).

Formal Learning

The majority of higher education provision falls into the category of formal learning. It is arguable that some learning provision offered by heritage institutions could also be defined as formal learning both in cooperation with formal providers or as learning providers themselves. A frequent distinctive feature of formal learning is its credit accumulation towards a formally recognised award and a defined curriculum.

Non-Formal Learning

Non-formal learning can be used to define any activity in which the learner intends to acquire knowledge or develop abilities in a context in which a less formal curriculum or syllabus is present but one in which knowledge is institutionally facilitated. In non-

formal learning academic recognition is seldom envisaged although other recognition structures exist.

Participation in an adult learning programme without any formal accreditation may involve the participant in doing everything that a credited student does but they simply do not submit assessed work. In these cases, there is clearly a formal curriculum present and institutional management is in place. In an adult educational context, in higher and professional learning, non-formal activities would include attending a professional conference, a public seminar or seeking out structured educational content on YouTube.

Informal Learning

Informal learning is intentional. It can be defined by what it is not (Marsick and Watkins, 2001), it is not formal learning, structured and institutionalised, nor is it non-formal learning, structured but without any academic accreditation associated with its reward mechanisms. Informal learning lacks the explicit externally specified, or implied, learning outcomes envisaged in formal and non-formal models but it remains intentional from the learner's perspective. This intentionality presumes a degree of self-awareness on the part of the learner and therefore a degree of self-defined objectives is present, however loosely articulated. An explicit delineation between non-formal and informal learning can prove problematic in the vernacular usage of the terms but the UNESCO definition makes a clear distinction; non-formal is institutionalised, informal is not, both are intentional. What is moot is the extent to which learning opportunities sought intentionally are institutionalised.

Ambiguities of the Heritage Context

It is important to confront the apparent ambiguities in the use of the educational terminology in a heritage context most familiar with its vernacular forms. Vernacular language use makes much use of binary opposites, black/white, night/day, etc. It is natural enough that in our use of the word informal we come to mean anything that is not formal. In this use of the term, formal learning is readily identifiable, anything that does not fit that definition is informal learning. This makes it easier for those institutions who chose to define themselves as other than educational establishments

as being in the informal learning space. However, the overwhelming number of collections and sites are heavily curated, that knowledge about artefacts is structured and represented to visitors through the interpretive lens of the curatorial staff, sometimes in conjunction with others. There is ordinarily a structured storyline, regardless of how many various routes might be taken to navigate one's way through it. Knowledge is clearly institutionalised in heritage sites. It has staff dedicated to acquisitioning, conserving and displaying artefacts none of which happens by chance. This knowledge construction represents a curriculum, not even a hidden curriculum but a distinct one, simply defined differently.

The disguised curriculum

Language determines how we interpret the world (Athanasopoulos et al., 2015). The French use the more generic term *programme* as a substitute for the English use of the word curriculum, Spanish uses *curriculo* but also *plan de estudios or* a plan of studies, German describes a *Lehrplan* or learning plan. In all languages it is clear that what is denoted is that learning is both planned and guided. It should be emphasised that the vast majority of curriculum literature has its roots in school-based compulsory education. There is broad consensus that curriculum theory and practice can be interpreted in four ways (Lynch and Knight, 2011), as;

- a body of knowledge to be transmitted – content
- an attempt to achieve certain ends (or outcomes) for the learner – product
- the course the learners follow in order to achieve a defined end – process
- the way of doing enabling learning – praxis.

There is a danger in adopting just one perspective on curriculum. If one sees a curriculum as synonymous with a syllabus, a list of content elements to be transferred, it devalues the importance of both the process and the praxis (Curzon, 2003). If one focusses on the product, the measurable outcomes, learning may become a technical function driven by competencies and standards, obscuring the importance once again of the means by which these outcomes are enabled (Cornbleth, 1990). A process perspective focussing on the skills of educators (and curators) is to bring their own criticality, expectations and proposed actions to enable the knowledge content to be engaged with. Stenhouse argues that process involves developing conversations with

learners, prompt them to thought and action, evaluating processes and outcomes all the while (1975). He goes on to define the planning of a curriculum using four principles;

1. Principles for the selection of content – what is to be learned and taught

2. Principles for the development of a teaching strategy – how it is to be learned and taught

3. Principles for the making of decisions about sequence

4. Principles on which to diagnose the strengths and weaknesses of individual students and differentiate the general principles 1, 2 and 3 above, to meet individual cases. (Stenhouse, 1975, p. 5)

For Stenhouse, curriculum is not a collection of knowledge objects or contents, rather it is a description of teaching practices. It is also generalisable but requires adaptability to each individual learning context and one in which outcomes should not be fashioned in an immutable form, but rather be customised to the learner. He also argues that the curriculum should service as a means of interactions as a means of interpretation and meaning-making. Objections to this model of the curriculum are grounded in those who believe in uniformity or provision, a public policy priority in most countries. This objection is not the concern of heritage sites in which differentiation rather than uniformity is the objective.

The praxis interpretation of the curriculum is an extension of its role as process in which the focus is on 'who' is providing or enabling the process. In the context of education the concern is primarily on the reflective teacher, able to adapt the process in response to external conditions, who can manipulate the curriculum to make it fit the individual student (Grundy, 1987).

I argue that heritage institutions very clearly align to the development of curriculum as it relates to content, product and process, and tangentially to praxis. It certainly aligns with the first three principles from Stenhouse, the selection of content, development of a strategy to convey meaning, and decisions about sequencing. Many heritage

institutions also fulfil Stenhouse's fourth principle in diagnosing opportunities for differentiation between individuals. Heritage institutions most clearly provide a plan of learning, a programme for learners, a curriculum – not hidden, but disguised as catalogues and guides, interpretative panels and labelling.

A view of the museum curriculum advanced by Valorie Beer, suggest that their unique feature is that they represent "curriculums of direct experience, not of discourse. Such curriculums can encourage nonverbal learning and produce in visitors the ability to 'read' and interpret objects" (1987, p. 13). This somewhat dated conception underestimates the degree of interactivity, of the listening to alternative voices, that is prevalent in contemporary heritage which in fact represent a degree of discourse. It is not suggested that there is an easy fit between the common place conception of the curriculum, as schools based syllabus, and the heritage venue, only that a broader conception of curriculum makes the degree to which exhibitions are designed clearly represents a curriculum (Vallance, 2004).

Defenders of Informality

Objectors might claim that despite this explicit structuring of knowledge, this disguised curriculum, the visitors' learning experience can still be (and often is) unstructured. A visitor's experience can certainly be unstructured. A visit may have no express education purpose at all and as a consequence this defines this visitor as merely that, a visitor, not a learner. A visitor who learns something as a consequence of encountering a heritage site does so in an unintended form, entering an institution as a visitor and emerging as an unintended learner.

Definitions of unintentional learning follow briefly, but what is important is to distinguish between the learner with intent, who does have some degree of structure in mind during their visit whether mandated or personally derived, who will make use of all of the cues and structures available to them furnished by the institution, and the unintentional learner who cannot (in UNESCO's 2012 work) be defined as an informal learner by virtue of the lack of intent.

This conception of informal learning differs from early research;

When teachers or mentors take responsibility for instructing others without sustained reference to an intentionally-organized body of knowledge in more incidental and spontaneous learning situations, such as guiding them in acquiring job skills or in community development activities, the form of learning is informal education or informal training. Finally, all other forms of intentional or tacit learning in which we engage either individually or collectively without direct reliance on a teacher or an externally-organized curriculum can be termed self-directed or collective informal learning. (Livingston, 2001, p. 3)

Livingstone's conception of informal assumes a degree of instruction and removes the learning from any context where there is a sustained engagement with any 'intentionally-organized body of knowledge'. This precludes heritage contexts. He goes on to obfuscate 'all other forms of intentional and tacit learning' in any organised model of learning and defines this as either 'self-directed or collective informal learning'. This is an unsatisfactory, and contradictory, definition. He goes on to provide a more precise definition of informal learning as being "any activity involving the pursuit of understanding, knowledge or skill which occurs without the presence of externally imposed curricular criteria" (2001, p. 5). This definition agrees with UNESCO's and my use of language, providing one recognises the intent. However, whether the intentional learner visiting a heritage site is there as an informal learner or as a non-formal learner depends on how one defines 'externally imposed curricular criteria'.

Another earlier attempt to reconcile the ambiguities around the use of informal learning from 2003, again posited in opposition to non-formal and formal learning, makes an interesting distinction between formality and informality in all learning contexts (Colley et al., 2003). Drawing on earlier European Commission definitions, their key differentiation between informal learning and both non-formal and formal learning is intentionality. They argue that the former is "rarely intentional, typically 'incidental'" whereas the latter forms share "Learner's perspective is intentional" (2003, p. 32). This definition has been superseded by UNESCO's later articulation which

states "Informal learning is defined as forms of learning that are intentional or deliberate but are not institutionalised" and which differentiates this explicitly from "incidental or random learning, i.e. various forms of learning that are not organized or that involve communication not designed to bring about learning" (2012, p. 12).

The visitor who intends to learn during their heritage visit is clearly an intentional learner. The argument therefore is whether or not heritage venues represent institutions' intent on imparting knowledge in an organised form for those intentional learners. The answer must be surely in the affirmative given that 85% of institutions declare their primary purpose to be learning (Mendoza, 2017). Even ICOM's own contested, although widely recognised, 2007 definition (http://icom.museum/the-vision/museum-definition/) of;

A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.

makes a bold claim which appears to define customary expectations of those working in the field. By simply reversing the clauses, without edits, of this definition it is apparent that the purpose, the 'why' of museums, and by inference heritage more widely, is 'education, study and enjoyment'. The acquisition and custodial functions are 'how' that is enabled, it is no longer the primary function of the museum.

Why	for the purposes of education, study and enjoyment.
How	which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment
What	A museum is a non-profit, permanent institution in the service of society and its development, open to the public,

Table 7 - Restructuring existing ICOM's definition of the museum.

It is the degree to which knowledge is heavily curated within the heritage sites that leads me to define this as institutionally facilitated knowledge.

Unintentional Forms of Learning

I will attend only briefly to unintentional forms of learning since this is not the primary focus of any of my research questions. Where learning happens without intent it is by definition unintentional or incidental on the part of the learner and can occur indirectly or accidentally in any context. It can be clearly differentiated from informal learning, non-formal and formal learning which are all deliberate or intentional. Also defined as random learning by UNESCO "unintentional learning occurring at any time and in any place, in everyday life" (Connal and Sauvagot, 2005, pp. M1-4), is characterised as being unstructured and unorganised. Victoria Marsick and Karen Watkins (2001) provide a thorough description of incidental learning as being learning that occurs through observation, social interaction, routine problem-solving and repetition; it can be drawn from inferences in context and conversations, and informed by making mistakes and challenging one's assumptions. Where there is agreement is that incidental learning is inherently situated, contextual, and social (Rogers, 2014). In higher education, those who have opposed the intended learning outcomes movement are keen to illustrate the power of such incidental learning (questionably better classified as guided self-reflection) (Hussey and Smith, 2002).

A second classification of unintentional learning is the more nuanced socialisation or enculturation skills that are encountered in daily life. It is unnecessary to enter the argument between sociologists and anthropologists as to the proper use of these terms (Mead, 1963; Woodward, 1997; Smith, 2001); suffice it to state that the daily process of adapting to, or being accepted into, a defined culture or a society represents the practice of daily life-long 'learning' (Hosen et al., 2002).

A Working Typology

I argue that a 'disguised curriculum' lies at the heart of any planned and managed heritage collection and that the experience of the self-directed intentional learner should be identified as non-formal learning using UNESCO's definition. Those individuals who are not intentional learners, those visitors who have other motivations for their visits but can be said to have learnt something from their visit, should be defined as unintentional learners. Any learning acquisition is then to be classified as incidental or random learning or as a form of enculturation given that the individuals

had no intention to enter into any communication 'designed to bring about learning'. As already illustrated, the academic literature is rich with conflation and contradictions as to the precise interpretation of the terms informal, non-formal and formal learning. Much of this literature predates the ubiquitous digital access to knowledge content and experiences. The distinction made between the three intentional status of learning is the degree to which the institution has structured the knowledge that supports learning. The following typology illustrates that heritage institutions provide organised knowledge; it is concluded, therefore, that the intentional museum learner is engaging with non-formal learning.

Degree of Intent	Outcomes or Objectives	UNESCO Classification	Degree of Engagement with Structure
Intentional	Assessed Externally defined Outcomes	Formal	Institutionalised / Curated Knowledge
	Non-assessed Externally defined Objectives	Non-Formal	
	Loosely defined Objectives	Informal	Non-institutionalised / Un-curated Knowledge
Unintentional	Not defined	Incidental Random	

Table 8 - Typology of Four Learning Status drawing on UNESCO definitions (2012)

An objection might be made that it is possible to define a disguised curriculum so broadly as to encompass a range of learning opportunities, notably books and television documentaries. It is certainly true that there is a structure in any published book and produced media. The **degree of engagement with structure**, whether an overt curriculum or an incidental one, and the **degree of intent** on the part of the reader or watcher, is what classifies the status of the learning opportunity.

It is possible to identify the degree of intent to learn (Crichton and McDaid, 2016). Individuals can be asked to explain their pre-visit intentions and asked to go beyond declaring that they wanted 'to learn something' (Sheng and Chen, 2012; Smith and Wolf, 1996). Intent is not a binary proposition; rather than having strict intent or having no-intention to learn, it is recognised that such motivations exist on a spectrum, although for the purpose of the UNESCO definitions there is a distinction made between intentional and unintentional learning (2012). Establishing the degree of knowledge structure is more problematic. The access enabled by digital devices makes the boundaries of available knowledge fluid; it is possible to access layers of detail, tangential and contextual information on a hand-held device wherever one is and, in doing so, change the authoritative voice traditionally the preserve of the curator (Mida et al., 2017). The degree of structuring of knowledge may be evident to those who choose to engage with it and be invisible to those who do not. In establishing a classification for learning opportunities, both the degree of intent and the degree of engagement with structure are required.

Two illustrations of this typology applied to two different heritage contexts follows.

Degree of Intent	Outcomes or Objectives	UNESCO Classification	Degree of Engagement with Structure	Blue Plaques (English Heritage)	Egyptian Exhibits (Ashmolean)
Intentional	Assessed Externally defined Outcomes	Formal	Institutionalised / Curated Knowledge	University literature students, studying the artists of the Bloomsbury set, research academic sources, and visit previously identified blue plaque sites	University students studying archaeology visit exhibits to observe conservation practices
	Non-assessed Externally defined Objectives	Non-Formal		Adult with a passion for history (individually or part of a local historical society) downloads a 'blue plaque guide' and follows its prescribed routes. They also look up additional details on their smartphone	Adult with a passion (individually or part of a local historical society) researching mummies identifies the 'Djed-djehuty-iuef-ankh' exhibit of interest and plans a visit, reads all interpretive texts and buys gallery guides.

				Adult with a casual interest in London's Georgian architecture walks the streets and identifies some blue plaques.	Adult with a casual interest in art and history browses artefacts without engaging in any designed narrative or structure
	Loosely defined Objectives	Informal	Non-institutionalised / Un-curated Knowledge		
Unintentional	Not defined	Incidental Random		An individual waiting for a bus notices a blue plaque	Oxford tourist walks around galleries

Table 9 - Heritage illustrations of Typology of Four Learning Status

The Place of Self-Directed Adult Learning

Self-directed Adult Learning is an intentional activity that sits alongside a range of well-documented approaches to other deliberate learning status adopted by a wide range of individuals in varied contexts and for different purposes. There are four personal enhancement strategies that are central to adult education and each will be explored in turn before expanding on the self-directed adult learner. These four are;

a) Reflective Learning/Practice;

b) Integrative Learning;

c) Transformative Learning;

d) Self-directed Learning.

Reflective Learning/Practice (a)

Reflective learning, and reflective practice carried out in many professions, is an extension of the concept of experiential education outlined by John Dewey (1859-1952). In 1916 he argued that "if knowledge comes from the impressions made upon us by natural objects, it is impossible to procure knowledge without the use of objects which impress the mind" (John Dewey, 1961, pp. 218–19). This notion of knowledge procurement through impressions, prompted by encounters with experiences, is later expanded further in the context of organisational learning by Chris Argyris (1923-2013) and Donald Schön (1930-1997) (Argyris and Schön, 1978). Reflective learning falls across all three intentional modes of learning depending on the degree of structured support prompting such reflection. It is always deliberate or intentional, there is ordinarily an intended outcome in mind regardless of whether this is sourced individually, and largely unconscious, or externally mandated (Boud et al., 1985).

In both the medical and educational professions there are well-established forms of reflective learning and practice under other terms, including evidence-based practice. I have argued elsewhere that reflection is a prerequisite for professional action (Atkinson and Irving, 2013), drawing heavily on Schön's dual concepts published in 1983 of reflection-on-action and reflection-in-action as a means of illustrating the way in which professionals improvise behaviour in response to stimuli (Schön, 2009). In

heritage education, there has been a return to some of the foundational concepts of object-encounter stimulation for adult learning (Monk, 2013; Winstanley, 2018) based largely on perceiving Dewey through a constructivist lens. George Hein describes Dewey as providing "a crucial lesson for museum educators: engagement with museum content, that is, personal connection with museum experiences, is important for learning" (Hein, 2012, p. 34).

Integrative Learning (b)

Integrative learning has become a mainstream concept in higher education under which practices such as problem-based learning as a teaching strategy and capstone (or synoptic) modules have become commonplace (Peden et al., 2017). Integrative learning can be defined as being the conscious blending of learning across any given curriculum with evidence and experiences drawn from inside and outside any specified curriculum. The value is in principally positioning it as a concept in the process of socialisation both in a disciplinary context or a profession. The process of integrating disparate knowledge, attitudes and values is by definition a form of integrative learning (Blackshields et al., 2016). It differs from tacit learning in that it is intentional but not necessarily institutionalised.

A parallel theme appears across education in a post-analogue world where there is a particular interest in the role that emerging technologies play in the personal aggregation of learning sources (Bass and Eynon, 2016). Emergent 'theories' including Dave Cormier's loosely defined 'Rhizome' (2008) and George Siemens's more clearly articulated notion of 'Connectivist' forms of enquiry (2004), can be positioned as forms of socially-mediated integrative learning. In connectivism there is a clear distinction between learning behaviours in a pre-digital age and our current age of ubiquitous access, the notion that learning is a series of continuously renewing interconnections between sources, producers and consumers of experiences and facts. Cormier, inspired by French philosophers Deleuze & Guattari's work (1980) on rhizomatic thinking in which they explored the distinction between arborescent (tree) and rhizomatic (root) forms of thinking adapted this notion to an age of abundant digital sources and potential interactivities. Despite the highly contentious, and rambling, nature of Deleuze and Guattari's philosophical treatise, and Cormier's disinclination to

define rhizome learning, I would summarise the former as seeing trees are a metaphor for slow growing, static, dependable structures as opposed to roots which are seen as fast, moving, weaving this way and that to make progress. Trees represent finality, roots opportunity, trees are seen as singular defined entities, roots multiplicity.

It is an intriguing metaphor to explore in both higher and heritage contexts. Once again different social science and humanities deploy language differently. Second language acquisition defines "integrative motivation is a complex of attitudinal, goal-directed, and motivational variables" (Gardner, 1999, p. 1), whereas the field of digital humanities, has focused on its interdisciplinary appeal, advocating for the integrative nature of research and practice (Hirsch, 2012; Nyhan et al., 2016).

Transformative Learning (c)

Transformative learning is explored extensively in adult learning being cited over a decade ago as the most researched perspective in the field (Taylor, 2007). As a 'theory' it fuses the psychological dimensions (metacognition) of experiences, personal epistemologies, revision of values systems (affective dimensions) and behavioural changes. Originating principally from the work of American Sociologist Jack Mezirow (1923-2014), a theory of transformative learning emerged in to a complex matrix of the learner's self-construction, validation and reformulation of their own personal experience, ordinarily in response to an existential crisis (Mezirow, 1991). This crisis was termed a "disorienting dilemma" by Mezirow (1978a, p. 7) and was conceived as being the result of either a sudden and dramatic change in some external forces (redundancy or illness) or a more gradual shift in the social constructs which the individual inhabits (new cultures in the neighboured). For Mezirow, like Knowles and as we shall see shortly, Brookfield, there was a distinct need for metacognition and self-reflection to be at the centre of such transformative learning to occur. He argued that,

> *If the objective of adult education should be defined in terms of*
> *fostering movement toward a higher level of development on a*
> *maturity gradient, it is necessary to ascertain the dimensions of*
> *development. (Mezirow, 1978b, p. 55)*

The search for meaning as a defining characteristic of human nature and that a recognition and analysis of one's own personal epistemology is both a means to self-revelation and social engagement is widely accepted in occidental thought. Mezirow (1978a, p. 17) also identified transformative learning as being the foundation "increased autonomy, self-determination, and responsibility-important gains in personal identity".

Mezirow's original research context for his theory development throughout the 1970s, jointly with a colleague, Victoria Marsick, was largely with adults (mostly women) returning to work, either after redundancy or illness, or after raising a family. Their early conceptualisation of a ten-step process is represented diagrammatically here in Figure 2.
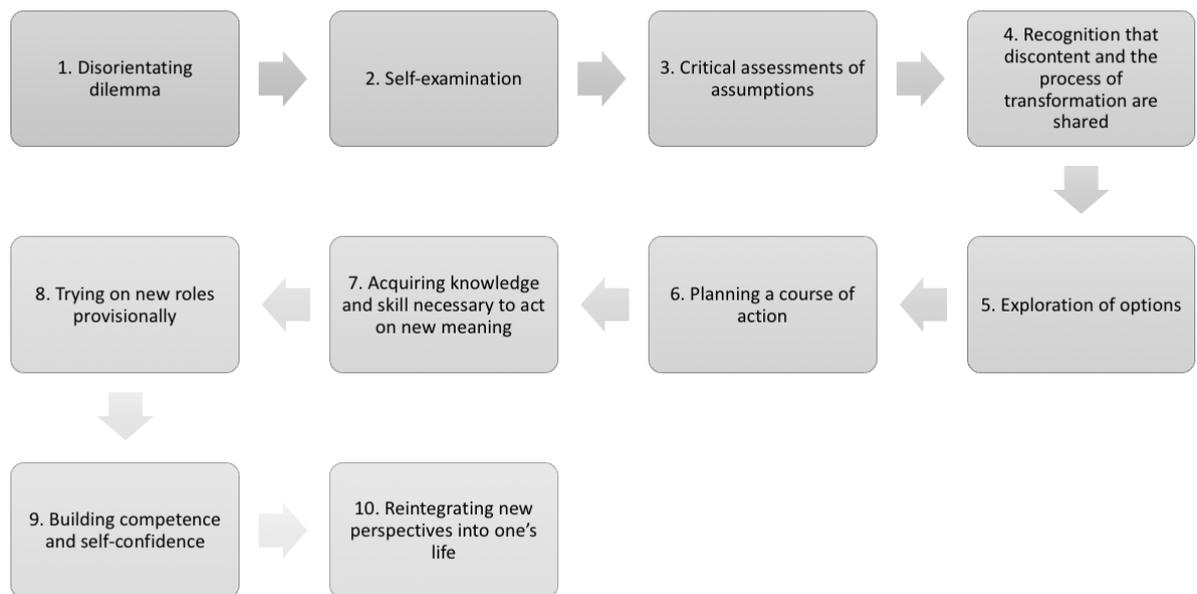
Figure 2 - Mezirow's 10-step transformational learning model (Mezirow, 1991)

This 'theory of transformational learning', originally 'perspective transformation', has been widely adopted by adult learning practitioners and incorporated into institutional policy (Cranton, 1994). Mezirow went on to define two underlying structures that sat below (or above) the ten stages, these being the concept of meaning schemas and

meaning perspectives. According to Mezirow (1991), a meaning schema is the 'how to…', how to make something work, how to understand something, even how to understand oneself. A meaning perspective is more visceral (my word), more foundational to an individual's belief system, their personal epistemology. In response to academic criticism of the theory, particularly that his conclusions were overly simplistic and specific, Mezirow evolved his position. He rearticulated the theory and integrated Habermas's concept of domains of learning (Habermas, 1986), describing different forms of transformation in terms of either the instrumental domain (deductive and experimental reasoning) or the communicative domain (inter-personal and social communication) (Mezirow, 1985), positioning them in a broader social context.

In response to criticisms that his theory was culturally narrow, far from universal, and ignored much of the social and cultural context in which individuals learnt Mezirow, through an open dialogue with John M Dirkx, further defined meaning perspective as being either epochal, often sudden and task-orientated, and incremental, gradual and self-reflective. He accepted that the initiator of the transformative learning could be other than a 'disorientating dilemma', such provocation could be the result of critical reflection or rational discourse (Dirkx and Mezirow, 2006). Mezirow unpacked critical reflection into three sub-headings, i) content-reflection in which the veracity of data is considered, ii) process-reflection in which the sources of this data are revaluated, and iii) the premise-reflection in which all underlying premises and assumptions are reconsidered (Lundgren and Poell, 2016).

Self-directed Learning (d)

I have previously illustrated that Malcom Knowles was a key figure in the 20th century's articulation of adult-learning as a distinct field of enquiry. He defined self-directed learning as a process:

> *… in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning,*

choosing and implementing appropriate learning strategies, and

evaluating learning outcomes. (M. Knowles, 1975a, p. 18)

Knowles argues the centrality of self-directed learning on the basis that:

- proactive learners, those who initiate the learning process, learn more effectively and efficiently, than reactive learners;

- self-directed learning is more in step with humans' natural maturing process, our psychological development, in taking increasing responsibility;

- societal demands on education places a responsibility on learners to take the initiative in their own learning;

- social change also requires individuals to adjust their expectations from learning what is known towards the skills of inquiry.

(M. Knowles, 1975a)

Knowles made his conceptualisation of the SDAL accessible to practitioners, designing and supporting them through the advocacy of a five-step model making it easily adopted and potential radical (Brookfield, 2014);

- diagnosing learning needs;

- formulating learning objectives;

- identifying human material resources for learning;

- choosing and implementing appropriate learning strategies;

- evaluating learning outcomes.

This rather linear process has its critics, not least because it appears contradictory. The process defined works well in the context of formal education but less transparently in an informal context (Merriam et al., 2006). Diagnosing and formulating learning needs is a complex metacognitive skill. If these skills are performed on behalf of the learner one is forced to ask to what extent they are self-directed.

If we regard adult learning as resulting from a transaction among

adults in which experiences are interpreted, skills and knowledge

acquired, and actions taken, then it is absurd to presume that this is

restricted to formally designated centres of adult higher. Rather, we

should conceive adults learning to be a phenomena and process that

can take place in any setting.(Brookfield, 1986, p. 4)

This quote suggests that rather than a technical, linear, approach to defining the self-directed learner, a more critical description would serve the debate better. The work of Brookfield would see self-directed learners as holding continuous control over all decisions made with respect to their learning and this learning being accessible without restrictions and constraints. His 2014 *infed* blog post defines self-directed learning as;

… acts of self-directed learning are those in which learners feel, and

exercise, authentic control over the content, form and purpose of

their own learning. They are also acts in which the ultimate

judgments regarding the significance and meaning of experience lie

with learners. For authentic control to be in place, learners must act

on the basis of knowledge of the alternative possibilities open to

them that is as fully informed as possible. They must also be able to

choose among possibilities that can be realised. I also believe that

self-directed learning is concerned as much with an internal change

of consciousness as with the kinds of technical activities described in

Knowles' definition. (Brookfield, 2014)

This suggests some movement towards social and political advocacy as well as educational theory, and is reflected in the work of Paulo Freire and others, arguing that educational leadership is warranted based on the skills required in any given moment, that there is value in directing the self-directed whilst maintaining the individual's right to choose (Horton and Freire, 1990).

There continues to be significant conflation of terminology between notions of self-directed and other definitions of learning. Earlier definitions of self-directed learning differentiates them by the degree of control over the means (how) and objectives

(what) (Mocker and Spear, 1982). In this conceptualisation it makes sense to position self-directed-learning on a par with informal, non-formal and formal learning, arguing that self-directed learning represents the only form in which the learner controls both the means and the objectives. This relies on a definition of the other three categories in this matrix.

		What (Objectives)	
		Institution	Learner
How (Means)	Institution	Formal Learning	Non-formal Learning
	Learner	Informal Learning	Self-Directed Learning

Table 10 - Mocker and Spear's 1982 'Lifelong learning model' p4

In my typology I choose to follow UNESCO's definition and argue that informal learning still has intent, and therefore objectives, and that it is non-institutionalised. I also believe it more effective to define self-directed learning as an 'approach' which can be implemented across statuses. Self-directed learners, by Knowles's definition, require varying degrees of support and direction and are as likely therefore to be engaged in non-formal learning as informal learning. Formal institutionalised learning is not, by definition, self-directed, despite however much internal choice is enabled and how much focus on independent study occurs. However, non-formal or Informal learning is necessarily self-directed in Knowles's definition. Self-directed learning is an approach, applicable to multiple status.

Mocker and Spears' work from 1982, positions their deliberations in the context of a search for a definition of lifelong learning, of which, they argue, self-directed learning is the ultimate manifestation. Such a conceptualisation requires revision. We should acknowledge that there are different definitions, manifested in public policy, of lifelong learning globally (UIL, 2016). The term 'lifelong learning' should be adopted in its vernacular form, as pertaining to any learning, through whichever approach and status, undertaken by an individual during their lifetime.

Summary of Modes and Fields of Adult Education

The challenges faced in choosing how to describe these approaches and status of learning are manifest. Much of educational theory is actually social theory, sociological concepts and approaches brought into learning spaces and educational practice. The predispositions for learning prescribed to adults by the aforementioned Malcolm Knowles, Stephen Brookfield and Jack Mezirow and are concerned largely with socially mediated responses. They are social theories applied to education, drawn from sociology, anthropology and to a lesser extent political science.

Other educational theories are psychological theories, more often drawn from cognitive and social psychology than neuropsychology. These theoretical perspectives are represented in the works already cited by Jean Piaget, Lev Vygotsky, Jerome Bruner and Benjamin Bloom. Educational psychology has historically had a broad spectrum of concerns from both cognitive and behavioural perspectives on learning processes, including intelligence, cognitive development, motivation, self-regulation, and self-concept (Goodman, 2010).

Neuropsychology's engagement with learning has focussed on aspects of children's intellectual development with reference to deficits, to those with perceived learning difficulties (Silver et al., 2008), and the elderly facing cognitive decline. Both of these sections of the population have also been well represented in research into heritage education practice in recent years from social care perspectives (Morse et al., 2015; Morse and Chatterjee, 2018; Shepherd, 2009).

Literature on women's adult learning, differentiating it from the presumed patriarchy, is also sometimes difficult to separate from the generic 'adult learner'. Women's missing voices from a more segmented study of adult learning were apparent since the 1990s when a review of the existing (largely US) literature suggested that the "literature we reviewed does not provide enough evidence to either confirm or disconfirm popular assumptions about women as learners" (Hayes and Flannery, 1995, p. 8). Some of these 'popular assumptions', namely that women's learning traits are

collaborative and empathetic, have been promoted as more effective

and appropriate ways of learning in the workplace and in formal

education than the competitive, individualistic modes of knowing

traditionally associated with men (Hayes, 2001, p. 35)

persist. Alongside a growing recognition of the importance of incidental learning as central to motherhood, household and family management, there is a growing interest in distinct motivations for learning amongst women (Hyde and Kling, 2001). Not least of these is the economic imperative to remain active and employable (Wolf, 2009). Research has also been undertaken into the engagement between heritage institutions and specified communities including the LGBTQI+ community (Adair, 2017; Frost, 2015), ethnic minorities within dominant cultures (Chung, 2015; Filippoupoliti and Sylaiou, 2015), and linguistic groups (Garibay and Yalowitz, 2015; Martin and Jennings, 2015). Indeed, there is barely a section of society that has not been researched through the prism of heritage studies, ordinarily by shining a disciplinary light through it to the subject in hand (Peers and Brown, 2003; Watson, 2007). The resultant linguistic cornucopia, or labyrinth depending on your perspective, is inevitable.

Conclusion

In this chapter, I have demonstrated that terminology within disciplines requires constant review and adaptation. By using UNESCO's definitions, I have identified that there are four status of learning, unintentional, informal, non-formal and formal. The degree of curriculum invested in heritage venues has been articulated and, as a consequence, an argument is made for the ways in which intent and curriculum determines the non-formal learning status of heritage venues. In order to contextualise the nature of the self-directed adult learner, I have differentiated between these four statuses of learning with a variety of approaches that learners might adopt. Through using the UNESCO definition, it is asserted that there is no informal learning possible for the SDAL in heritage contexts, given the form and structure inherent in the presentation of heritage, which is institutionally determined or mediated. The presence of a distinct curriculum determines institutional learning. All learning in heritage contexts is either intentional and therefore non-formal, or unintentional and hence incidental. It follows that the SDAL should be defined as a non-formal learner when engaging with externally curated knowledge in the heritage context. In this chapter I have begun to explore the first of my research questions,

namely 'how do heritage institutions interpret the needs of self-directed adult learners?', concluding that in the vast majority of cases they do not recognise the distinct classifications I have outlined. In the next chapter I will explore the evidence that supports current conceptualisations of the visitor as an 'informal learner' rather than my construction of the heritage visitor as either an intentional non-formal learner or unintentional visitor. The chapter concludes with an examination of a number of models of learning applied to the heritage context.

Chapter 3: Visitors and Learners

We understand that the term "visitor-centered" is sometimes highly charged. On the one hand, it can represent a banner and rallying cry for educators who interact dally with visitors and see missed opportunities for connection with the public. On the other hand, that banner can turn into a red flag for curators, who fear that it may mean they need to let visitors define the messages – and even the exhibitions – they present. (Samis and Michaelson, 2017, p. 2)

It's easier for us to do the easier things to do. That's partly because we've already got targets to meet, wherever you work, in a museum or gallery or council, and the targets tend to be for income and or for visitor figures. So, you want people to come through the door and you count them off (B06)

The previous chapter argued for a visualisation of a typology that identifies heritage learners either as visitors who either have an intention to learn, and are therefore undertaking a form of non-formal learning in a deliberately curated context, or as individuals who have no intention to learn, and acquire learning incidentally. Based on UNESCO's definition, where there is no intention to learn such visitors cannot be seen as informal learners but rather must be seen as incidental or random learners or those undertaking a non-learning socialisation activity. Intention matters. This argument centres on the definition of the nature and purpose of a heritage institution, be it a museum, art gallery, historic house or discovery centre, and it has also been demonstrated that the primary function of heritage venues, enshrined in ICOM's definition and evidenced by the Mendoza report (2017), as perceived by visitors, are sites of learning.

In this chapter, it is argued that there is little evidence in visitor studies to describe sector-wide perspectives on the motivations of visitors. Rather the evidence is for policy driven evaluation of the visitor experience. I identify the trends followed by

heritage education towards cognitive and constructive models of learning that resulted in the UK heritage sector's adoption of the Generic Learning Outcomes or GLOs. The chapter concludes by reviewing the argument for more precise use of language in describing approaches to learning.

Identifying Audiences

The late 18th and early 19th Century saw the bourgeoning of genuinely free, public access museums and art collections, led in Europe in part by Napoleon Bonaparte's fervour for cultural plunder, "government responded in 1801 by establishing fifteen other public museums [after the Louvre] among its departments to receive the surplus art" (Abt, 2007, pp. 128–129). It is no coincidence that the emergence of the public heritage institutions occurs in Europe and the United States at the same time of the emergence of the Nation State (Macdonald, 2003). It is noteworthy that one of the first public museums in the United States, founded by Charles Willson in Philadelphia in the 1780s, was designed as a site for 'rational' amusement distinguishing it from other forms of entertainment (Miller et al., 1983).

The shift from a central locus of power, in royalty and the church, and from privileged elites to new independent industrial classes (Seed and Wolff, 1984), produced a wealth of opportunities of self-discovery and for philanthropy (Bremner, 1996). These societal changes took significant time to evolve; while public education and public museums emerged at a time of political reform and revolution, neither developed into fully fledged institutions. This slow institutional maturation was due in part to economic necessity and traditional cultural attitudes which meant that children were working, at least part-time, and therefore did not have time to attend school. It was not until late in the century that the Education Act of 1870 gave United Kingdom localities the responsibility for the provision of basic education (Lee, 2012).Public cultural institutions remained an "important element of civic development" (Lee, 2012, p. 88) for central governments competing for resources to respond to societal pressures for public housing and health, as well as public education, to furnish a growing industrial machine.

George Hein has provided an overview of the development of visitor studies, with an evolution of perspectives from early behaviourist studies of adult visitors in the 1920s

and 1930s, through the development of exhibition evaluation in the 1960s, and to more contemporary naturalistic methods of qualitative, field-based studies (Hein, 1998). Hein's work illustrates a deepening of comprehension about the nature of the audiences visiting heritage institutions, from an undifferentiated 'general public' in early behaviourism through to variegated categorisations of different types of learners in contemporary naturalistic studies. As the 20th century developed, public museums were increasingly defined as educational institutions, largely on the basis that any exhibition "always [has] a message; a story they intend to tell for the education and entertainment of visitors" (Hein, 2008, p. 14).

The contemporary structured typologies of these visitors, sometimes synonymous with learners, other times not, combine both psychological and sociological interpretations of audiences (Hooper-Greenhill, 2006) to the point where 'general public' in early visitor studies is now acknowledged as producing 'audiences', 'potential audiences', 'designated audiences', 'participants' and 'learners'(MHM Ltd, 2007a). The barriers to museum and gallery access have also receive significant attention from both psychological and sociological perspective, exploring participation from motivational economic, cultural or educational perspectives (Bitgood, 2013a).

The sociological viewpoint was given new lease of life in the 1960s as a result of Pierre Bourdieu and Alain Darbel's seminal work *L'amour de l'art. Les musées d'art européens et leur public* (1966). Bourdieu begins to elaborate an argument for the cultural deficient experienced by heritage victors based on a diverse range of social factors, including notions of class, education, culture, ethnicity, lifestyle, gender, physical and mental disabilities amongst others (Fyfe, 2004). Bourdieu argues for a correlation between the visitors' experiences of museums and galleries and their pre-dispositions, their prior experience of encountering the artefacts being viewed, and their ability to place these experiences in the context of their own lives (Dicks, 2016).

In the last 30 years there has been significant interest paid to the motivations of heritage visitors. While institutions routinely capture demographic data as to their audience profile, studies have focussed on the institution's relationship to visitors, as strangers, guests or clients (Doering, 1999) or the sense of personal identity on the part of the visitor (Falk, 2012).Other studies have focussed on aspects of motivation

within specific segments of the population, notable families (Moussouri, 1997; Butler and Sussman, 1989; Black, 2005) and ethnic minorities in the UK context (Desai and Thomas, 1998). Visitors' motivation has been studied through a range of disciplinary perspectives using various theoretical frameworks and methods. As a consequence, each study has stressed different dimensions to the visitor experience although what the majority share is, in my opinion, an outdated definition of educational terminology, stressing the informal over the incidental or non-formal status of learning. There is widespread acceptance of the notion that developing 'effective' museums relies on enabling access, physically, culturally and educationally (Ambrose and Paine, 2018) . There is also recognition of a lingering resistance to this objective from those who seek to emphasise the scholarship and collections of institutions (Doering, 1999; Genova, 2018).

Intentionality and Heritage Institutions.

Motivational studies are far less common in heritage than audience segmentation research based on a range of demographic factors. As Alix Slater identified "The limitation of this work is that much of it has been descriptive, reporting on personal and social factors whilst psychological factors, including beliefs, values and motivations have received less attention" (2007, pp. 149–150). A seminal source often referred to in studies is work published in 1983 by Hood in which she identified, based on a review of "60 years of literature in museum studies" (1983, p. 51), six attributes for *leisure* participation (my emphasis) as;

Hood's attributes (in alphabetical order as per source)	Slater's classification of Hood's attributes
1. Being with people – social interaction	Social interaction
2. Doing something worthwhile	Emotional
3. Feeling comfortable and at ease in one's surroundings	Sensory
4. Having a challenge of new experiences	Sensory
5. Having an opportunity to learn	Rational

6. Participating actively	Rational

Table 11 - Segmentation of Leisure Visitors from Hood (1983) and Slater (2007)

Her conclusions, based on 502 telephone interviews in the Toledo, Ohio, area carried out in 1980, identified that frequent visitors who attended more than three times a year (14%) and who represented more than half of the actual visits in her sample, were more likely to cite learning and new experiences as the key attributes underpinning their visits. This is in contrast to both of the other two categories in her sample, occasional visitors who made one or two visits each year (40%) and those who had never visited (46%), who were more inclined to cite being with people, participating actively and feeling at ease in their surroundings, as the reasons for their engagement and non-engagement in heritage visits. Similar patterns of responses from surveys in different countries from Scotland (Prentice et al., 1997) to New Zealand (Thyne, 2001) suggest that there are broader socio-cultural conditions that influence visitor motivation as Bourdieu suggested 50 years ago (Bourdieu and Darbel, 1966). Thyne's attention to foundational values and their relationship to museum participation is certainly intriguing. Values represent "conceptions of the desirable that influence the way people select action and evaluate events" (Schwartz and Bilsky, 1987, p. 550) and a number of sociological and psychological formulations have sought to define 'universal vales'. Thyne's use of the LOV (List of Values) (Kahle, 1983) featuring nine elements and also Rokeach's Value Survey (RVS), containing thirty-six values, because the "LOV seems to be missing values linked to learning, wisdom, knowledge and education, therefore relevant values to these dimensions were taken from RVS" (2001, p. 123) is an important step in the right direction. What appears to be absent from the literature is any visitor research based on the personal epistemologies or dispositions for learning on the part of adult visitors. Only a truly comprehensive visitor survey that incorporates a fusion of the RVS, LOV and Kluckhohn and Strodtbeck's 'Values Orientation Theory', identifying five universal values (Hills, 2002), combined with detailed personal epistemological frameworks borrowed perhaps from education (S. P. Atkinson, 2014) has the potential to identify in any detail the learning motivations of visitors.

Despite there being relatively little obvious scholarship regarding the learning motivations of visitors, it is possible to suggest that heritage learning, given the heavily curated nature of the knowledge shared, should be regarded as either intentional and therefore non-formal, or unintentional and incidental. One might differentiate between intentional non-formal learning (choosing to attend a specific exhibition) and coming to understand that one reason why the fire of London developed so quickly was the result of the close proximity of wooden structures, and the incidental learning that occurs in working out how the audio guide device worked. The distinction is intentionality. A group of friends visiting the same exhibition without express intent to learn but rather to engage in a social activity and who acquire some knowledge do so as incidental learners not informal learners.

My contention is therefore that for SDAL the definition of informal learning, however intentional, precludes heritage venues given that these are most definitively heavily curated institutional spaces. An adult visiting any heritage institution, whether an art gallery, museum, historic house or site of historic interest either does so with some conscious learning intent in engaging with the curated collections, the knowledge represented in interpretation and physical artefacts, or without such intent. This institutionalised context defines heritage venues as non-formal learning. The alternative is that that the visitor has no expressed intent to learn and any resultant learning is incidental or random. The visitor who walks passed an institution as a casual tourist and decides to enter does so either to learn (and hence become at that moment a non-formal learner) or form some other reason and any resulting learning is incidental.

I acknowledge that heritage institutions may feel uncomfortable with the idea of being non-formal educational institutions or accepting that their visitors are potentially incidental or random learners. There is some comfort in the notion of informal learning; this despite the fact, previously stated, that 85% of heritage institutions identify themselves as "primarily places for education and learning" (Mendoza, 2017, p. 99). Language is important, and I am also critical of higher education's casual use of terminology (Atkinson, 2015). Heritage educators already acknowledge the manifest reasons for visiting an institution or venue; from active intent to discover something

new to visiting a decent coffee shop, through sheltering in the rain to showing around friends from out of town. It is a mistake for heritage educators to define the visitor who makes a deliberate choice to attend their institution but who has no apparent learning intent as an 'informal learner'. Rather the mission of heritage institutions would benefit from a focus on their non-formal role and accepting that other visitors have non-learning motivations for visiting.

Despite the extensive research on heritage visitors' motivations, the field of visitor studies has suffered from a lack of agreed classifications of intent making any longitudinal or cross-institutional comparisons problematic. Ceri Jones describes the challenge as,

> *There has been little coherence to how visitor studies has developed*
> *in the museum sector despite Visitor Studies organizations being*
> *established in Canada (1991), US (1992), Australia (1995) and UK*
> *(1998) - although there have been attempts such as the former*
> *Museum, Library and Archive Council's Inspiring Learning for All*
> *framework in the UK launched in 2004 (see RCMG 2015) – which has*
> *led to great diversity in approach but also fragmentation and, in*
> *some areas, a frustrating lack of rigour. (2015, p. 539)*

The heritage sector itself is concerned with the value of visitor studies, whether in fact anything is to be learnt from the visitors' perspectives over the professional views of heritage staff themselves (Lynch, 2013). As my data will show, there also remains persistent concern that the evaluative comments received from visitors may prove less helpful, managerially and politically, than would be hoped for, particularly in a culture in which immediate responses via social media are becoming the norm (Wong, 2012). Visitor studies have focussed on a specific policy priorities in a variety of contexts, from a concern to prioritise attention (Bitgood, 2013b) to diversifying audiences (Golding and Modest, 2013) to focussing on specific marginalised communities and advocating for new perspectives on 'museums in health' (Chatterjee and Noble, 2017). Despite the empirical nature of such studies there is little commonality in their approaches which would enable institutional comparisons of visitor motivations to be deduced. Generic visitor research, outside of a specific policy agenda or institutional context, appears to

be based on ill-defined notions of involvement, participation and hedonics. The distinctions between evaluation (programme specific with an intent to respond) and research (resulting in generic broad insights) are worthy of note (Hein, 1998), since there appears to be extensive evaluation of the visitor experience and relatively little research resulting in generalisable studies on visitor motivations. Attempts at developing frameworks for studies into visitor learning are evident in the literature although these appear to focus once again on the educational practitioner's need to reflect on their engagement with visitors rather than on the visitor learning motivations and make use of now obsolete binary definitions of informal and formal learning.

The construction of learning audiences in heritage education is dependent on an appreciation of the concepts of learning itself described above. Learning in a heritage context is acknowledged as not being a simple mechanical transaction, 'knowledge in, knowledge out', rather the process engages a range of attributes, values and cognitive functions (Illeris, 2006). The constructivist perspective, one in which individuals construct their knowledge independently according to personal learning approaches and predispositions as well as social and cultural factors has emerged as the dominant underpinning theory in heritage education (Falk, 2006; Hein, 1998; Hooper-Greenhill, 2007). This approach suggests that regardless of settings, any deliberate attempt to educate (non-formal or formal) requires the provision of multi-facetted, stimulating and accessible learning processes. Ideally, it offers learners different routes or pathways through their learning experience. Heritage institutions can be expected to provide more than passive exhibitions and written interpretation; learning requires engagement (Black, 2005).

Context of learning in heritage institutions.

> *To promote learning, museums and galleries have to realize the*
> *sometimes surprising fact that many actual and potential visitors*
> *prefer to learn in ways and about things that are profoundly different*
> *from the staff's own preferences. (Illeris, 2006, pp. 16–17)*

Efforts to support meaning-making by audiences have a long history (Brown and Ratzkin, 2011). Regardless of the apparent lack of theoretical underpinning of adult educational practice in heritage institutions and, despite a great deal of activity, there is little focussed audience research, from academic perspectives, as to identify visitors' needs with respect to learning (Monk, 2013). The primary concern of the majority of heritage management remained collections acquisitions and management, alongside scholarly research, aimed at the knowledgeable visitor (Screven, 2004), despite ICOM's definition of a museum stated earlier and the responses provided to the Mendoza enquiry, both of which implies that learning is the core of any institutional mission. In the early years of the twentieth century, it is suggested that visitors wandered aimlessly through museums, unaware of how to study artefacts, in this new and unfamiliar context. (Burnham and Kai-Kee, 2011). The interpretation available, notably in the form of labelling, guidance notes and public lectures, were largely based on dates, places and factual data, often very light on contextual interpretation (Roberts, 2004). As Bourdieu suggested, there was an assumption that visitors would automatically value, and benefit, from observing the exhibits (Anderson, 2004). The latter part of the century did begin to see active efforts towards teaching for visitors within the heritage institutions (Burnham and Kai-Kee, 2011), spurred in the United States by Benjamin Ives Gilman's pioneering audience research regarding museum fatigue (Gilman, 1916).

Throughout the twentieth century, in tandem with evolutionary practices in educational theory, audience research and teaching practices changed their focus (Anderson, 2004; Hein, 1998) from behavioural to constructive models. The primary approach that emerged in the latter half of the twentieth century, before the ubiquitous advent of the internet, was that of constructivist learning (Hein, 2002), one in which heritage learning is an active process in personal meaning-making (Hooper-Greenhill, 1999; Silverman, 1995) . There are differences in various fields of heritage practice, between art galleries, particularly contemporary art collections, and the museum or historical venue as to how meaning is made (Barthes and Heath, 1977; Eco and Robey, 1989), although it is the stated objective of the vast majority of venues (Mason, 2005).

There are two distinct, yet competing, challenges in supporting such meaning-making, the unlimited potential for personal interpretations and the heterogeneity of the current heritage audiences. Firstly, there is the danger that existing heritage visitors anticipate, and possibly over-estimate, their ability to understand everything on display without any prior knowledge (Bourdieu and Passeron, 1990), and face difficulties in interpreting multiple or conflicting interpretations (Henning, 2005). Heritage exhibitions are frequently represented, in context, content and appearance, differently from existing heritage visitors' expectations, displays can be seen as incomprehensible to many (Acuff and Evans, 2014; Durant, 1992; Lankford and Scheffer, 2004)

The second contradictory challenge faced by heritage educators is the perceived heterogeneity of the visitor. Despite efforts to change institutional perspectives from that of 'expert speaker to expert listener' (Deeth, 2012, p. 1), to make provision for an already informed, curious and motivated audience (Csikszentmihalyi and Hermanson, 1995). The continuing battle between the collection and scholarship perspective, and the more open educational experience for all visitors, has not yet been resolved, with those advocating that a 'multi-speed' approach might work best. This would mean providing minimal interventions between objects and the experience visitor but layers of contextualising experience for the less experienced; "A possible loss of mystery for some of the more connoisseurial visitors might be more than compensated for by a gain from contextualization for those less knowledgeable" (Wright, 1989, p. 141) .

There is an acknowledgment amongst heritage educators that learning processes are unique to the individual, that one size doesn't fit all. This has led some to suggest that the role of front-of-house staff, docents and guides, are the critical point at which such accommodations should be made because such individuals are accessible to the public and they are in a position to evaluate the individual's prior-knowledge, level of comprehension and levels of enquiry and learning intention (Simon, 2010). In practice, there appear to have been two observable trends in heritage educational practice, to engage with formal learning, particularly with primary schools and national curriculum guidelines (Kim and Sheppard, 2010), and the embracing of digital learning opportunities at heritage sites.

The advent of ubiquitous hand-held and web enabled devices, or smartphones, has progressively changed the way people work (Mullan and Wajcman, 2017), source information, experience entertainment and learn (Conole et al., 2015) since their introduction over 20 years ago. Individuals' engagement with the cultural sector has not been immune to these societal shifts in communicative norms. Heritage visitors increasingly expect (inter)active, interconnected, immediate and participatory experiences involved in their visit or interaction with heritage sites (Ambrose and Paine, 2018; Brown and Ratzkin, 2011). Such demands are compelling institutions to work together, and with those in the education sector, in order to keep pace with both technological advances in infrastructure and software applications (Freeman et al., 2016).

Models of Learning in Heritage

Such adoption and adaptation from other educational sectors have been the norm in heritage. Heritage educators have derived models and frameworks by drawing on broader educational disciplines. In their earlier 'Interactive Experience Model' (1992) John Falk and Lynn Dierking refined their conceptual model of learning processes in order to reflect their belief that "learning in museums is a whole-body, whole-experience, whole-brain activity" (Falk and Dierking, 2000, p. 10)

> *The questions that many museum directors, trustees, and professionals are currently asking are, do people actually learn as a result of museum experiences? And if so, what are they learning? We would assert that the answer to the first question is an unequivocal yes. Answering the second question is much more difficult since it requires knowing something about who is visiting, why they are visiting and with whom, what they are doing before and after the visit, what they see and do in the Museum, and how all of these factors interact and interrelate. (Falk and Dierking, 2000, p. 13)*

In developing their model into what eventually became the 'Contextual Model of Learning' (Falk and Dierking, 2000), in articulating the personal, physical and socio-cultural dimensions to learning, Falk and Dierking have consistently emphasised that

none of the three elements should be seen as fixed in time, being open to reinterpretation in the light of subsequent experiences.
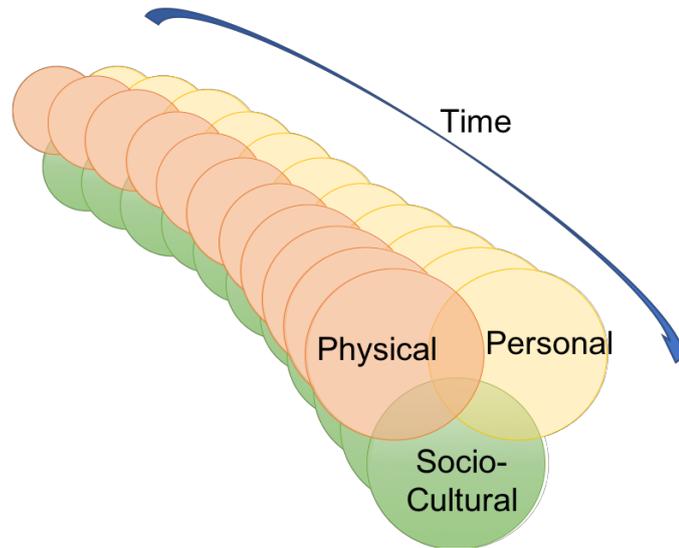
Figure 3 - The Contextual Model of Learning (after Falk and Dierking 2000)

They differentiate between informal and informal learning as 'free choice learning' in which learning, both noun and verb, are conceived of being at the junction, the interaction and integration, of three visitor contexts. These are the personal context, the sociocultural context, and the physical context (Falk and Dierking, 2000) (Falk and Dierking, 2000)The personal context is intimately linked in research literature with the notion of self-identity (Gupta and Ferguson, 1992; Wenger, 1999; Woodward, 1997) and intrinsic motivation (Crooke, 2010; Csikszentmihalyi and Hermanson, 1995; Dweck and Leggett, 1988; Wosnitza and Beltman, 2012). There is broad agreement that effective learning requires a range of motivational and emotional cues, and that learning that draws on, or is related directly to one's emotions, is more enduring and holds greater personal significance (Liew et al., 2017; Simon, 2010). This concept of self-identity construction itself has different dimensions, both psychological in the form of self-esteem, self-worth and the sense of personal autonomy – its sociological or familial forms (Woodward, 1997). This 'sense-of-self in context' is more prevalent in societies in which the bonds of communitarianism are stronger (Kluckhohn and Strodtbeck, 1961), but there remain traces in the 'West' of enduring notions of ethnic belonging ('my Welsh heritage') and familial history ('my grandfathers were both coal miners'). Literature also concedes that in addition to the need for personalisation of

the learning experience, the other personal contextual element that must be present is motivation (Hofer and Pintrich, 1997; Pintrich, 2003). Learning motivation is where there are distinct differences between children's education and that of adults, if we are to permit the generalisation that the child is ordinarily actively guided by another, and the adult is more often an autonomous decision maker, a free choice learner.

This personal-familial context, clearly defined in other cultures such as Aotearoa New Zealand Māori's notion of whanau (familial bounds extending out beyond immediate family to clan, and tribal allegiances) (Bishop and Berryman, 2006), differs from the socio-cultural context defined by Falk (Falk and Dierking, 2000) but the boundaries between the self and society (between unintended and intended socialisation) are arguably porous. The point at which the individual becomes identifiable as a member of a collective is moot. Nonetheless the second context, the socio-cultural context of learning, is valuable if only because it recognises the relationships from artefact or object to the learner, rather than from learner to artefact (Felton and Kuhn, 2007). It illustrates the reality that all communications are the product of a particular epistemological and ontological perspective. The extent to which there is a 'match' between one's own socio-cultural constructs, one's personal epistemology, and the artefact viewed either hinders or elicits meaning construction (Grüninger et al., 2014).

The third contextual relationship is between learning and the physical context. All learning is 'situated' in some physical space. This could be as personal as a favourite reading chair or a chemistry lab at university, a specific train journey or an historic house, the space in which learning takes places does not necessarily require any explicit design to afford such learning, it might be purely incidental. Heritage venues have, however, become increasingly sensitive to the effectiveness of well-designed learning spaces, of enabling the natural patterns of association and meaning-making to be encouraged and supported through forms of spatial learning (Macleod, 2005).

As John Falk and Lynn Dierking had outlined a simple model of constructivist learning in a North American heritage context, others followed. George Hein's own seminal works (Hein, 2002; Hein and Alexander, 1998) define a model of learning in museums less as a guide to practitioners than a taxonomy of institutional purpose (Figure 4).
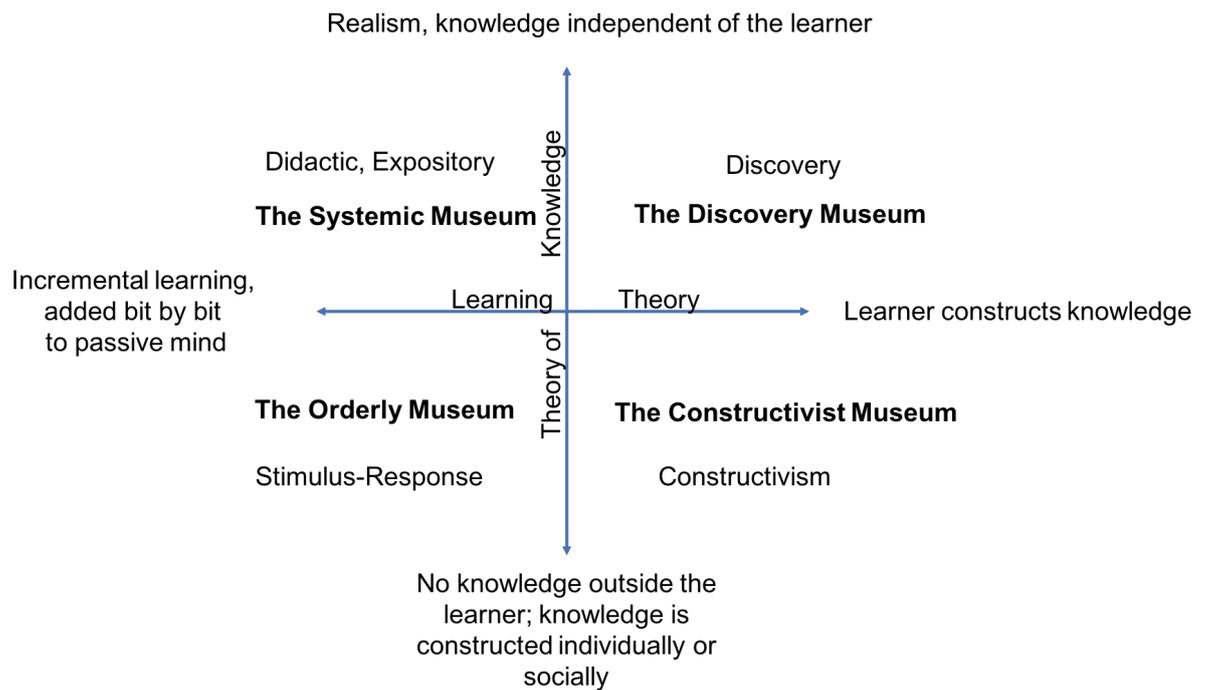
Figure 4 - Educational Theory based on representations by George Hein (Hein G.E.,2001 p11)

Indeed, what is most interesting in Hein's work is less his acknowledgment of the influence of constructivist theories in museums;

> *Constructivism is appealing to museum educators and exhibit*
> *developers for a variety of reasons. It encourages interactive exhibit*
> *development, it legitimizes play as a form of learning and it is*
> *compatible with the progressive tradition of object learning*
> *exemplified in museums for decades (Hein, 2001, p. 3) ;*

It is his identification of the obstacles facing heritage professionals in adopting it in practice. He identifies five foundational principles in any constructivist learning approach to be taken by heritage venues, that:

- constructivism confers validity of the learning process regardless of the outcome. Whatever you learn is recognised, either confirmed or corrected. As a consequence "applying constructivist pedagogy often means that exhibitions focus on processes more than on content" (Hein, 2001, p. 4)

- personal change requires more than mere facts and information. Truly transformational learning requires perspectives to be discarded and rebuilt

- language should be liberating rather than restrictive (particularly for the young). To grasp a concept but to use 'inappropriate' terminology and processes in defining it does not mean that the concept is misunderstood. Hein states "For exhibit development, this approach means creating components that allow and encourage multiple ways of interaction" (Hein, 2001, p. 5)

- learning will be defined by the visitor rather than by a predetermined set of conditions, suggesting that "the extent to which visitors or learners have mastered standard subject content may be irrelevant to understanding the interesting and rich ways in which visitors have made meaning from exhibitions" (Hein, 2001, p. 6)

- alternative ways of measuring learning achievement are required to overcome the 'content mastery' paradigm. Hein adds, "we need to acknowledge that we do not have adequate criteria for interpreting visitors' meaning making to guide us in exhibition and program development." (Hein, 2001, p. 6)

This final principle is responded to by the seminal work of the University of Leicester's Research Centre for Museums and Galleries (RCMG) in their development of the Generic Learning Outcomes (GLOs) developed out of a shared academic heritage, but with distinct policy contexts (Hooper-Greenhill, 2007). The context that underpins the development of the GLOs is pertinent and warrants some explanation.

UK Heritage Education's response to constructivist models.

In the United Kingdom, there has been sustained interest in social learning certainly dating well before back the foundation of the Open University in 1969 and gaining significant political momentum throughout 1990s (Weinbren, 2015). In its report entitled *A Common Wealth: Museums and Learning in the United Kingdom*, published by the then Department of National Heritage in January 1997, the importance of museums to the learning potential of the entire population was clearly stated as a policy objective (*A Common Wealth: Museums and Learning in the United Kingdom*,

1997). Its emphasis was both on coordinating formal educational engagement, and informal and 'self-directed' learning. Again, the term 'self-directed' is used loosely in this context and perhaps the report's purpose should be interpreted as covering informal, non-formal and informal learning through a variety of different modes, one of which is 'self-directed'. The report contains a brief overview of educational theory under the heading "Museums and how people learn" and identifies several popular contemporary theories.

First is the work of Lev Vygotsky (no citation or reference in the report) and Jerome Bruner (1996, 1986, 1962, 1960), both cited in support of a social constructivist model of education. The work of Howard Gardner and his development of multiple human intelligences is also included (Gardner, 2011). The report declares that it is Gardner's belief that

> the informal, enjoyable, contextualised environment of the museum
> and apprenticeship model of learning are more relevant to the needs
> of today's children than the decontextualized environment and
> formal methods of the school (A Common Wealth: Museums and
> Learning in the United Kingdom, 1997, p. 5).

The work of Stephen Brookfield also is mentioned in support of the notion that there is a vast 'parallel universe' of self-directed learners (1986, 1983), by implication adults, keen to learn without a fixed curriculum and very often in partnership with social groupings whether a club, society or other community organisation. The report identifies that,

> self-directed learners are of great significance to museums. They are
> probably disproportionately represented among existing visitors and
> may be the main source of active public support for many
> institutions. (A Common Wealth: Museums and Learning in the
> United Kingdom, 1997, p. 5)

The fourth popular contemporary approach to learning described in the report is that of experiential learning. Singling out David Kolb (1984) and Bernice (incorrectly attributed to 'Denise") McCarthy (1980) in particular, the report conflates the notion

of experiential learning with different approaches to learning commonly referred to as 'learning styles'. In identifying the potential preference for 'sensing /feeling', what in later work might be referred to as somatic learning (Chatterjee and Hannan, 2017, p. 5), the report argues there is defensible neuroscience behind such learning approaches arguing that

> *these differences can be related to the dominance of either the right*
> *brain (to which is attributed concrete, nonrational, intuitive and non-*
> *verbal thought) or the left brain (to which is attributed abstract,*
> *rational, analytical and verbal thought) (A Common Wealth:*
> *Museums and Learning in the United Kingdom, 1997, p. 5)*

Importantly, the report does suggest that experiential learning is of particular interest to the museum community because it represents a theory of divergent learning practices, adopting one of Hein's principles covered earlier, and advocates that the museum is a flexible learning environment able to support a hugely diverse range of learning approaches.

Despite the breadth of various educational theories that purportedly underpins this government report, it is largely aimed at children, families or 'special' communities. The profiling of current educational provision contains only two out of 23 questions that relate directly to adults. This contrasts with four questions relating to special communities, three relating to further and higher education, five relating to children, teenagers and families and four directly addressing formal school education (*A Common Wealth: Museums and Learning in the United Kingdom*, 1997, p. 12). The report goes on to identify 12 targets for the development of museum education providing case study examples for each. These 12 targets are;

1. the museum's educational mission

2. the museum has a learning resource

3. a skilled workforce

4. research and evaluation

5. lifelong learning

6. open museums

7. engaging other educators

8. partnerships

9. adequate provision throughout the United Kingdom

10. a national framework

11. investment

12. advocacy

Of particular interest here is target 10 'a national framework', subtitled to "Establish the infrastructure that is required at a national level to support development of museum education" (*A Common Wealth: Museums and Learning in the United Kingdom*, 1997, p. 75).

In its introduction to this target, it identifies two complementary national resources for public education as being the formal education sector and the cultural sector. It suggests that the cultural sector, "provides lifelong informal learning while also supporting the formal education sector" (ibid, p75). Building on earlier governmental reports, notably that of *Treasures in Trust: a review of museum policy* (DNH, 1996), it is suggested that the cultural sector in itself is required to build the rapprochement with a diverse range of educational communities. It identifies the Museums and Galleries Commission (MCG) as being the key mechanism for change in the field and suggests its major contribution will be through research. The MGC was merged with the Library and Information Commission in April 2000 and was rebranded as Re:source, later known as the Museums and Libraries Association (MLA). As part of its work contributing to *Inspiring Learning For All* (now a framework hosted by the Arts Council), the MLA commissioned staff at the University of Leicester to explore the potential for educational frameworks.

A key figure in the commissioned research was Professor Eilean Hooper-Greenhill, Head of Department of Museum Studies from 1996 to 2002 and Founding Director of the Research Centre for Museums and Galleries (RCMG) between 1999 and 2006. A significant contribution to museum education in United Kingdom under the

stewardship of Hooper-Greenhill was the development of the Learning Impact Research Project (LIRP) which ran in two phases between 2001-2004. In her review of the work of the RCMG, and LIRP in particular, published in *Museums and Education: Purpose, Pedagogy, Performance* (2007), Hooper-Greenhill builds on the distinction between formal education and the cultural sector. She characterises the first as highly regulated and the latter as free of 'curriculum' constraints and assessment.

Education	Entertainment
Hard work	Pleasure
Cognitive	Affective
Instructive mode	Discovery mode
Experts and novices	Friends and family
Schools days	Holidays

Table 12 - Reproduced Table 3.1 Education and Entertainment: binary opposites (Hooper-Greenhill, 2007 p34)

She paints a 'classic' view of compulsory education in order to identify apparent differences between education and entertainment before advocating for a re-visioning of both fields in partnership. Professor Hooper-Greenhill goes on to suggest that there is a distinct fusion of the cognitive and the affective in all learning processes and sets up the underlying premise of social constructivist meaning-making at the heart of the LIRP. She appears to conflate tacit and experiential learning quoting Peter Jarvis in stating:

> *Experiential learning is the process of creating and transforming experience into knowledge, skills, attitudes, values, emotions, beliefs and senses. It Is the process through which individuals become themselves. (quoting (Jarvis et al., 2003, p. 46) in (Hooper-Greenhill, 2007, p. 37)*

Hooper Greenhill goes on to discuss the work of Falk and Dierking, discussed earlier, and dismisses their anthropological approach, based on its apparent functionalism, as being contrary to the multicultural context in which museums largely operate. She also dismisses Falk and Dierking's ecological explanation of learning as being a form of

behaviourism. It is certainly true, as she suggests, that by the late 1980s the North American research environment that had been concerned primarily with functionalist approaches was in decline (Burrowes, 1996). At the same time, European sociological traditions has taken a different path, dominated in part by Bourdieu's notion of field, habitus and social capital (Dicks, 2016), and Foucault's historical and critical review of epistemologies (Hetherington, 2011). The LIRP project adopted a pre-existing definition of learning (used by the MLA in its *Inspiring Learning For All*) arguing that learning is

> *a set of complex interrelated processes that:*

- *Are idiosyncratic and unpredictable*

- *Are both individual and collective*

- *Relate and shape individual learning through interactions with other people, with social spaces and with specific tools for learning*

- *Involve personal and collective identity and the search for personal and group relevance*

- *Are 'situated' – linked to a physical or subject-related context*

- *Generally build upon what learners already know to make prior knowledge is deeper, more explicit, and more finally developed*

- *More rarely involves learning things that are completely new*

- *Result in explanations and knowledge which appear meaningful to learners but which are provisional (that is, last as long as they are useful or until they become superseded by new meanings).* (Hooper-Greenhill, 2007, pp. 41–42)

There is significant emphasis in the LIRP's definition of learning that it is essentially meaning-making based on some level of prior exposure, that learning makes use of pre-existing knowledge or social awareness in order to extend that experience and that learning is the result of thought after meaning. They also adopt a definition of learning in which individual meaning is conceptualised in being "mediated among and between communities of interpretation, and communities of practice" (2007, p. 42). It is suggested that the LIRP had as its purpose an attempt to develop a cultural theory of

learning. Given that part of its brief from the MLA was to develop some framework for measuring educational outcomes, the project went on to develop 'generic learning outcomes' or GLOs. It is undeniable that the development of the GLO has had some impact on educational practice in UK heritage (Dieck et al., 2016), not least evidenced by it being explicitly mentioned (unprompted by me), as we shall see, by my workshop participants. A report issued by Culture and Learning Consortium suggested that the GLO were "now used widely in the sector to plan and evaluate learning" (Rogers, 2009, p. 21), although no data was cited to support this claim. Impact has also been claimed amongst regional museums, funded through Renaissance in the Regions and subsequent funding sources, who reported

> *Three quarters of Heads of Learning from Renaissance-funded*
> *museums consider that the GLOs have helped the sector to take on*
> *board a wider definition of learning, with almost as many feeling that*
> *the GLOs have given the sector a shared language to talk about*
> *museum learning (Graham, 2013).*

Conclusions

In this chapter, I further delineated the linguistic difficulties in sharing a vocabulary even within 'mainstream' education and have declared heritage education, institutionally curated, as falling clearly within the UNESCO definition of non-formal learning when intentional and incidental when not intentional. This is important because a focus on 'informality' distracts heritage institutions from their avowed mission to be meaningful places of learning. I have argued that there is little evidence in visitor studies, as currently constructed, that supports sector wide conclusion as to intentions of visitors as learners. I outlined Interpretive models of learning in a heritage context that have followed the trend towards cognitive and constructive formulations and concluded by briefly reviewing the impactful study undertaken by the University of Leicester that generated the Generic Learning Outcomes or GLOs. Seeking an alternative perspective on existing heritage education practice in the next chapter, there follows an examination of the context, and literature base, that gave rise to a conceptual model of learning design, the SOLE model, that emerges from my higher education practice. This model was designed to support both non-formal and

formal learning contexts and I will explore its relationship to *constructive alignment* (Biggs and Tang, 2007) and educational taxonomies, both of which will be defined shortly, and whose functionality reaches beyond the confines of formal learning contexts. This will also serve to begin answering my third research question, 'is there a benefit from interdisciplinary dialogue between educators from higher and heritage sectors?'

Chapter 4: Student-Owned Learning Engagement (SOLE) Model

…design is complex and multi-faceted, different representations have

different affordances and purposes (Conole et al., 2008, p. 190)

I think I could do it, I quite happily see the value of [the SOLE model], I

don't think I could sell it to anybody higher up. That might allow

people to better engage with the object, get more out of it, but it

won't put more bums on seats and it won't put us on the map.

(Birmingham Participant B32)

In the previous chapter a range of approaches, models and frameworks that are used by heritage organisations to interpret part of their educational remit, particularly those that relate to adult learners have been identified. It is important to note that those outlined are grounded in a distinct 'western' epistemological history and are not limited to adult visitors. Whilst they represent current practice, their adoption is far from being universal. In this chapter, an outline of a unique educational model developed for higher education, the Student-Owned Learning-Engagement (SOLE) model is provided. This chapter serves as a foundation for further contextualisation of my research questions, the usefulness of such a framework as an evaluative framework for heritage organisations to reflect on adult learners' engagement with their collections. The contexts that gave rise to the development of the model, describing its nine constituent elements, relating these elements to the use of educational taxonomies in learning design in higher education, are all examined.

Conceptual origins

The SOLE model and its associated toolkit is an original conceptual model of higher and professional educational practice originated by me in 2006-07 (Atkinson, 2011b). It was designed to facilitate my work as an educational developer in the higher education context. Specifically, the need to interpret classroom-based teaching programmes into an online context. It was intended to be used as an explanatory model, rich in visualisations, to be used to support teachers to adopt educational theories into practice as part of my academic development function. It was born

partially out of personal experience that the majority of faculty (academic staff) possess very little, if any, educational design experience when entrusted to design modules and programmes (Vescio et al., 2008).

Foundations

My personal learning design practice was heavily influenced by the educational material design principles advocated by stalwarts of educational design at the Open University (UK) in the 1980s and 1990s, Professors Derek Rowntree and Fred Lockwood. Two significant texts, both published in 1994, examined the practical steps needed to develop meaningful and effective learning materials in the context of 'open, distance and flexible' learning contexts, both being pre-digital. Lockwood detailed the planning, production and presentation of learning materials but with no theoretical structure (Lockwood, 1994). It appears to be largely assumed that it is established educationalists who will derive practical examples from this academic volume. Rowntree is more illustrative and practical in nature, but also makes assumptions about the theoretical grounds on which its readers operate or assumes that such theoretical foundations are unnecessary (Rowntree, 1994) .

Lockwood and Rowntree had both left the Open University (OU) when I joined the Institute for Educational Technology at the OU in 2001. As a Project Officer charged with providing online support for the Postgraduate Certificate in Learning and Teaching in Higher Education I turned to the literature and encountered Lockwood and Rowntree's texts. Given an absence of theoretical underpinnings in either volume, I explored the literature and identified what was to be one of the central planks in my practice since, *'Constructive Alignment',* describing the interdependencies between assessment, learning activities and intended learning outcomes (ILOs) (Biggs and Tang, 2007). Central to the framework is an appreciation of the function of ILOs. Designed with an assessable active verb, statements such as *'the student will on completion of this module be able to: evaluate contrasting sources and provide a summation of key arguments'*, an ILO provides a 'scaffold' to learning design. Having specified ILOs, the learning designer then establishes how to assess the evidence produced by students that demonstrate their attainment of the ILO. Subsequently, the learning designer develops learning and teaching activities that enable students to effectively 'rehearse'

their preparedness to answer the assessments and evidence their attainment of the ILOs.
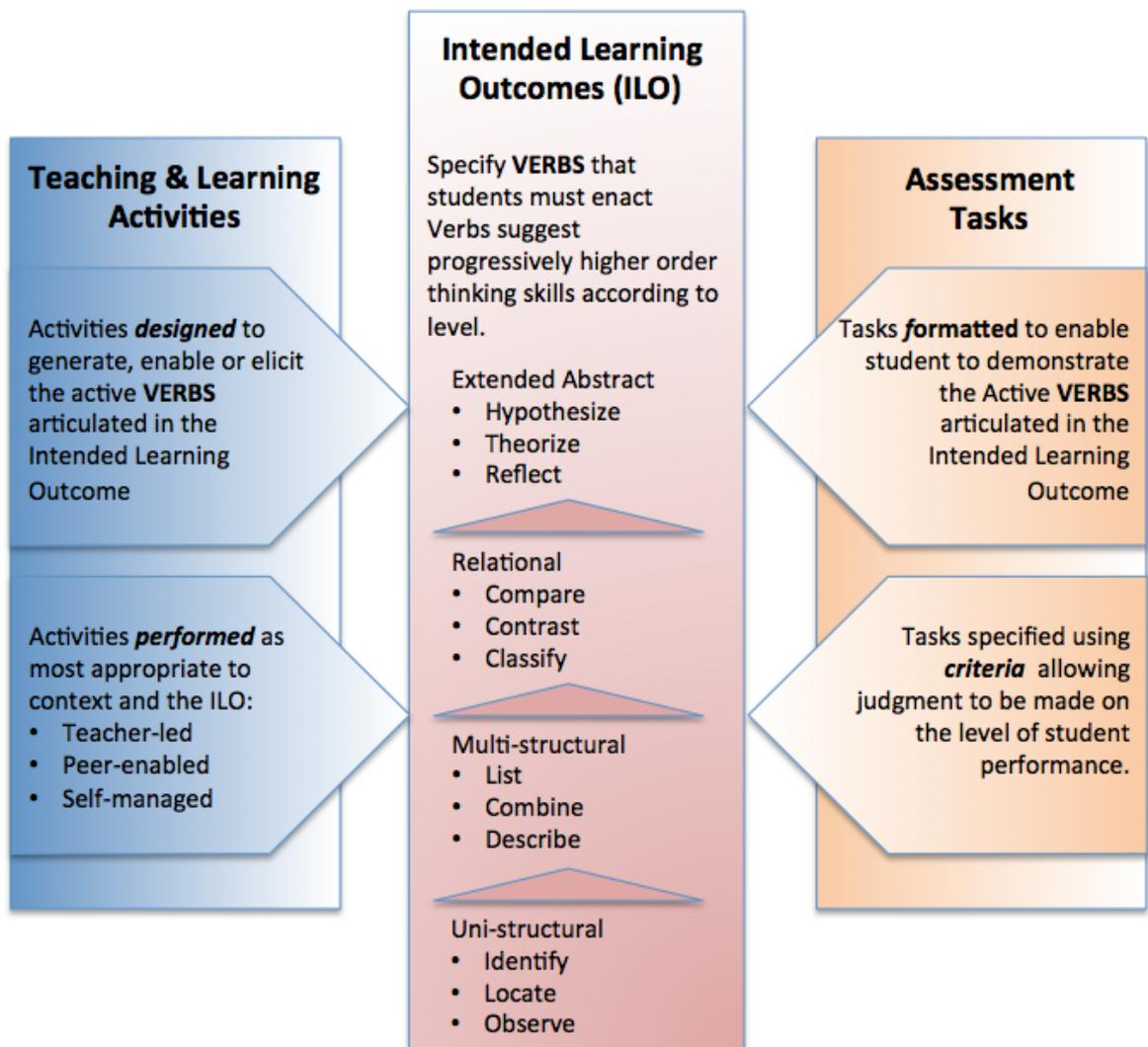
Figure 5 - Illustration of the Structure of Constructive Alignment. Adapted from Biggs & Tang (2007)

Early Model

I wanted to produce a visual representation of all the modes of engagement that a university student, an adult learner, should be guided, or supported, through to be successful. Late in 2006 I began putting Biggs's *Constructive Alignment* at the centre of my initial schematic: a central circle emerged with graduate attributes, then an outer circle of programme intended learning outcomes, then module outcomes (Figure 6). From this core of constructively aligned learning emerged nine spokes or petals (hereafter referred to as elements). Initially these were defined in passive terms,

'Learning Materials', 'Tutor Contact Time' and so on. Later these were replaced with active verbs developed alongside other personal scholarship about the taxonomies of educational objectives. The language used to describe each element has continued to evolve since the original hand-drawn illustration in 2006. The diagram does indeed represent a complete holistic representation of the learning experience.

Figure 6-Hand drawn first iteration of the emergent SOLE model (2006)

I sought therefore to produce a model that would, in an accessible and transparent way, be useable by both students and teachers to,

- embody educational guidance and learning theory (Conole et al., 2004)

- embody good practices regarding constructive alignment (Biggs and Tang, 2007)

- adopt an inclusive approach to existing models of learning, such as Laurillard's 'conversational framework' (1993)

- enable the development of a practical toolkit that would make patterns of learning design shareable (Conole and Fill, 2005)

In moving to work at Massey University, New Zealand, in 2008 the emergent model developed further. In the context in which I was beginning to work, where universities were beginning to increasingly teach online and adapt existing programmes for alternative modes of delivery, be that fully online, distance or blended, the model made sense. Through working closely with course developers, all the various elements appeared necessary in both virtual or real-world learning and teaching contexts. This demonstrated the robustness of the model as well as facilitating professional development conversations about balancing the curricula, resourcing and workload. These professional conversations, and subsequent conference presentations and workshops (Atkinson, 2010) and sharing ("2010 European LAMS & Learning Design Conference - Cloudworks," 2010) made it clear that the model had multiple functions, it would facilitate developmental, descriptive, diagnostic and evaluative dialogues.
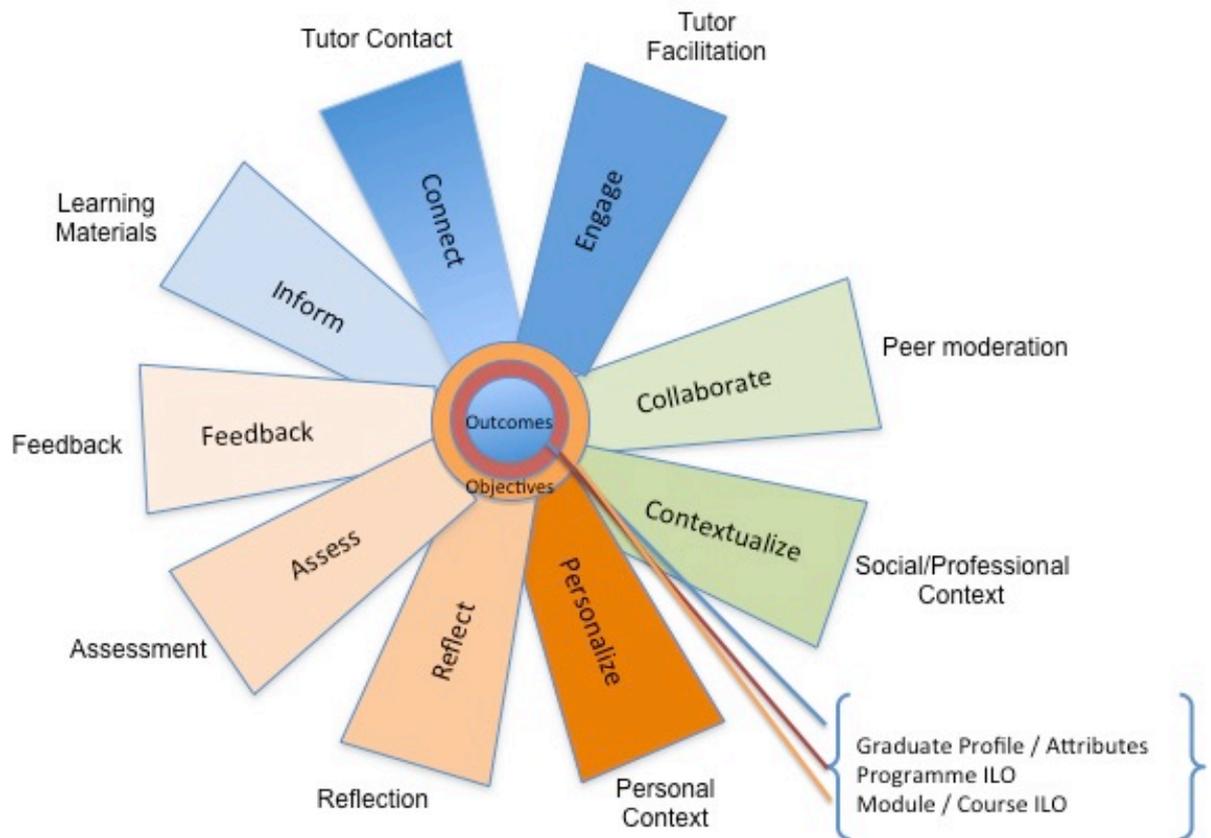
Figure 7 - Mature Illustration of the SOLE model (2015)

The aim remained to develop tools that would support faculty to embody educational theory into their practice without restricting their own creativity. The SOLE model is not intended to represent a 'grand unifying theory' but it illustrates the holistic nature of adult learning. Whilst the model allows for the interpretation of pre-existing theory in its design, it attempts not to enforce any specific learning theory of practice. Although neither advocating social-constructivism nor constructivism, rhizome learning (Cormier, 2008) or connectivism (Siemens and Conole, 2011), it does promote the interconnectedness of the learner experience given that the model puts the learner at the centre. This is not an advocacy for solipsism but instead the recognition that learning occurs inside the individual through their external engagements.

Although the associated toolkit is not being evaluated in this doctoral research it merits some brief explanation. During 2008-2010, prompted by demand from Massey University faculty, work began to develop a toolkit to enable the embodiment of the model and its representation of sound learning design practice.

As Conole suggests,

the development of toolkits provides a way for non-specialists to engage with such theories in a manner which supports careful design and prompts productive reflection and engagement (Conole et al., 2004, p. 18)

This toolkit has become a comprehensive planning tool. Using Excel, on the basis that any skills developed would be transferable, the open nature of the toolkit makes it extremely flexible. The Excel workbook contains a number of theme or topic sheets, ordinarily treated as a week's worth of learning engagements, guidance notes as to how designers might interpret the various elements and a series of dashboards which summarise visually, by means of pie charts, the relative stress being placed on particular activities. Based on the principles of constructive alignment, the toolkit allows activities to be mapped against ILOs but also to be categorised within different elements of the SOLE model. In doing so, it allows the learning designer to see visual representations of the learning engagements asked of the students both in terms of SOLE element and intended learning outcome. More recent iterations of the toolkit also allow for the visual representation of the environment or mode of study (Moodle, YouTube, Podcast, etc) to ensure a degree of digital plurality and support students' digital literacy.
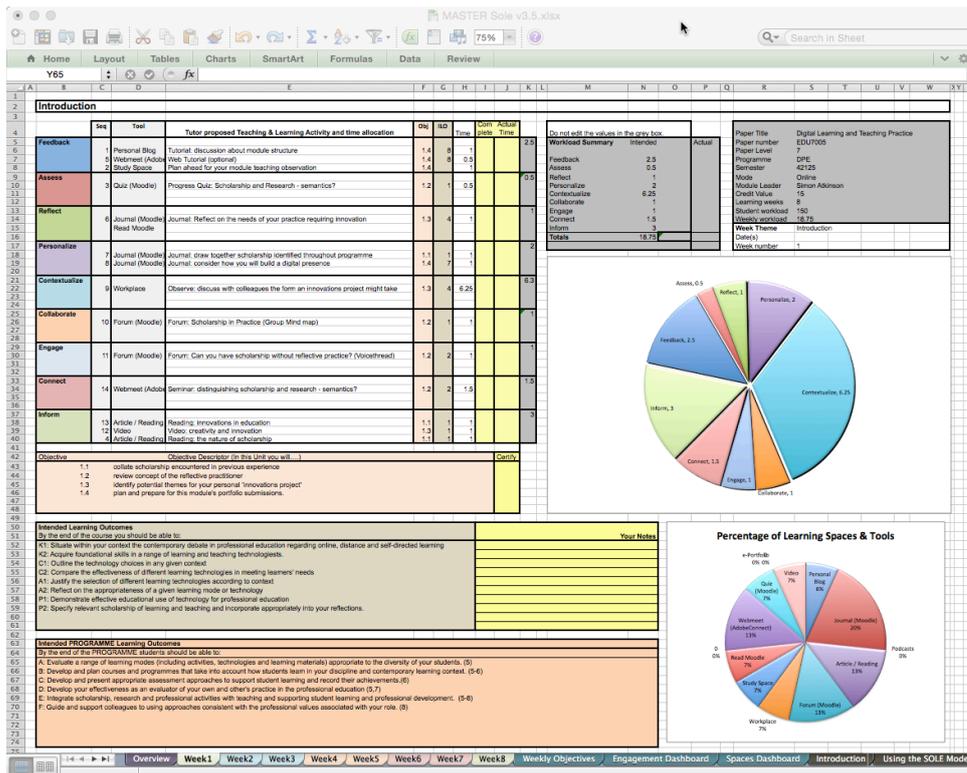
Figure 8 - Screenshot of the Excel Based Toolkit Learning Design Tool based on the SOLE model (2015)

Descriptive, Developmental, Evaluative and Diagnostic

The SOLE model when articulated through the Excel toolkit (see above) is intended to fulfil four functions. The individual spreadsheets in the toolkit function as an advanced organiser, a personal planner, for students. The student might be provided with this as a PDF printout, as a guide for how to engage with the resources, of where to be for contact time, or provide questions for reflection (Ausubel, 2000). It does not replace course materials or other guidance that might be more expansive in the context of the virtual learning environment, but it does provide a quick identifiable structure to the complexity of learning. Beyond its *descriptive* function, the ability to plan and develop a period of study whilst maintaining an overview of the balance of learner activity, signifies the toolkit's *developmental* function. Conceived of as an instrument for collaborative design, for course teams to debate, discuss and share, the toolkit allows for incremental development. A user can choose to begin and end the design process wherever they choose.

One individual may choose to articulate all of the assessment and feedback activities for a period of study across all the weeks or topics, and then to identify their

relationship with other elements. Another colleague may choose to focus all their attention on the personal contextual element and identify, where the individual student's pre-existing knowledge and experience provide a central thread to their design. Yet another colleague may choose to identify the structure of tutor contact time first and all other elements subsequently. Where an individual starts the design process says much about their approach to learning and teaching, their epistemological assumptions, and the relative value they place on learners' ownership of learning.

The open and unrestricted nature of the SOLE's Excel toolkit also provides the opportunity for students to annotate each spreadsheet with the actual time spent on suggested engagement activities. It also allows students themselves to add comments to individual sheets using the same cell comment facility used to provide pedagogical guidance for faculty. The flexibility of the spreadsheet means that faculty can collate, week by week or at the end of the period of study, a sample or entire cohorts' experiences, and in so doing, modify and develop their design. This signifies the toolkit's *evaluative* function.

The transparency of the learning design represented by the toolkit provides a powerful *diagnostics* tool. Student feedback on the quality and value, timing and pace, usefulness or redundancy, or different elements of learning can be easily compared to the intended learning design and assessed for their validity. Beyond simply collecting evaluation data, the data are collected within the context of the learning itself providing an immediate environment for evaluation. Encouraging students to insert cell comments in response to the guidance they have been given, reflecting on the choices they made, the difficulties encountered with particular activities and so on, is also incidentally developing the students' skills in manipulating spreadsheets.

In 2014, with the release of Version 3.0 of the Toolkit, there was an evolution of language to retitle elements using active verbs. So that 'Assessment' became 'Assess', 'Personal Context' became 'Personalise' and so on. This was to ensure a greater sense of ownership of the elements on the part of students. The Toolkit is 'open' and so the ability to rename individual elements remains. This also built on associated personal

scholarship around the development of visual representations of the five taxonomies of educational objectives (Figure 10).

Nine Elements of Engagement

It is appropriate at this juncture to articulate the individual elements of engagement within the SOLE model in their original higher education context. There have always been nine elements.

Feedback

Feedback is defined in the model as 'supportive guidance on quality and level of evidence being demonstrated in achievement of the learning outcomes' based on consensus within the academic literature (Nicol and Macfarlane-Dick, 2006; Race and Pickford, 2010). The guidance sheet contained within the toolkit suggests that feedback could be self-generated, peer generated or teacher focused. It asks: what opportunities exist for feedback within a given teaching context? Will students see the tutor each week, for how long, and are classes sizes such that feedback will necessarily be peer provision? Can learning sets or group strategies support more effective feedback? If teaching online, or supporting the learning online, is there an opportunity for personalised feedback?

Feedback is an enduring challenge in higher educational contexts internationally. UK Universities who have been subject to the National Student Survey (NSS) since 2005 have consistently received sustained criticism from their students as to the quality, volume and timeliness of feedback on their learning (Mendes et al., 2011). Even allowing for the solipticism of the student and their relative lack of assessment literacy, there is ample evidence that there is a serious deficit in the provision of effective feedback to students (Carless and Boud, 2018). Language matters enormously in this context. Feedback of (or on) learning and for learning are two complementary themes most often debated amongst educational developers.

In non-formal learning (intentional less heavily structured) the feedback element might rely on sought feedback, that which the individual actively seeks, and on self-feedback. Self-feedback marries closely with self-assessment (Boud, 1995), although it distinct given that it is feedback for learning, rather than assessment of learning. The growth in

gaming in education could be argued to be a response to the perception that the 'millennial generation' lack the ability for sustained concentration and require instant gratification (Oblinger and Oblinger, 2005). It is not unreasonable to assume that students who are used to making game-based decisions, and who receive near instant feedback as to the veracity of their decisions, are consequently impatient in having the wait two weeks for scribbled comments on an essay script.

Assess

Assessment, in its active verb form 'to assess', incorporates all types of assessment designed to measure student performance. In addition to formative and summative assessment, this element also incorporates, diagnostic, ipsative (sometimes called placement) and synoptic (sometimes called capstone) assessment and other sub-classifications (Hughes, 2017; Irons, 2007; Nicol and Macfarlane-Dick, 2006; Yorke, 2010). The model's associated notes ask questions such as: what is the assessment balance within each course? Are opportunities provided for engagement with the marking rubrics? Is optionality or negotiated assessment possible in the course? Are there opportunities for students to relate assessment tasks to prior learning or to other pre-requisite courses? Does assessment design give the students anything to 'take-away' of practical benefit to their future learning, career or life-work?

In the context of the SOLE model, with its central focus on a constructively aligned curriculum, assessment can be defined as the 'opportunity for learners to develop and evidence their attainment of intended learning outcomes'. Well written ILOs are flexible enough to avoid the highly regulated approach so prevalent in higher education assessment (Hussey and Smith, 2008). Objections to ILOs are routed in a norm-based referencing form of assessment, the notion that there is a 'normal' level of assessment and that all responses are measured against this. This leads inevitably to the enduring reliance on the 'bell-curve' in moderating marks in university exam boards, based on the belief that some students must inevitably be weaker or stronger than others. Contemporary practice is moving towards the use of marking based on criteria rubrics, incorporating more effectively all domains of learning (Gallavan and Kottler, 2009; Stevens et al., 2013). Much of formal education, from primary through to postgraduate, measures performance relative to an externally defined benchmark

and at the same time within an existing cohort, whether that is a single class or a national age group. The lack of recognition of the philosophical assumptions that lie behind this approach undermines the flexibility that contemporary assessment in higher education requires. We should not underestimate the powerful effect of an ontological perspective that equates 100% with perfection, whilst deeming perfection to be unattainable. As in the adage:

100% is rightly to God alone, 90% for the Angels, 80% for the Pope,

70% for the Cardinals and Bishops, 60% for the Priests and

Professors, you're lucky to get 50%. (Anon)

Criteria-based assessment relies largely on ILOs, although in practice rarely clearly defined or well-structured (Atkinson, 2015). The lack of marking rubrics based on ILOs is a weakness in higher education assessment which persists in blurring the approaches to criterion and norm reference marking. However, there is currently a change in the context in which assessment conventions are being challenged. In professional programmes, in health and law notably, the professional bodies increasingly promote competency frameworks which educational providers must match (Leoni, 2014). The evolution of professional apprenticeships has deepened this trend, with 'standards' playing the role of the competency framework. In a competency model one tends to regard a learner to either be competent or not, to pass or fail a particular competency. This leads to a situation in which a cohort of 20 may have 18 students who pass, and two that do not, what is the philosophical basis for insisting that the 18 who pass are ranked?

The SOLE model is again agnostic about the actual forms, or underlying philosophy, of assessment used on any given programme. It does, however, give importance to the value of assessment as a primary motivator for learning, acknowledging that there is evidence that students' engagement is driven by the way in which they will be measured (Entwistle, 1983; Entwistle and Tait, 1990; Hounsell et al., 1997).

Reflect

The ability to reflect is identified in the SOLE model as a reflection-on-action as well as a reflection-in action process through the course life-cycle (Argyris and Schön, 1978). It

prompts learning designers to ask: what opportunities exist for students to capture the reflection on feedback and assessment? What artefacts might be stored for later consideration? What occasions exist to engage in the individual's social context and with peers to evaluate the learning in progress?

Reflection is a much-lauded although problematic skill in university teaching contexts. The need for reflective criticality has been the focus of research both from a philosophical perspective (hooks [sic], 2010) and orientated to employment needs (Helyer, 2015), although there remains a need to support faculty to actually teach reflective or critical skills to undergraduate or postgraduate within their programmes of study (Ryan, 2013). Some attention has been paid to personal development planning instruments (Barnard, 2011) and associated e-portfolio applications that have emerged in the last 15 years. There are increasing attempts to provide short formative assessment cycles, the one-minute papers, and session by session feedback loops all of which do promote reflective practices (Brookfield, 2015). However, it is rare to find university programmes built around reflective processes themselves, a feature of many non-formal self-improvement forms of learning.

In the context of the SOLE model the definition of reflection is broad, covering essentially the metacognitive processes that one expects students to engage in and around the learning that they undertake. Metacognition can be conceptualised as;

> *Students learn to monitor and direct their own progress, asking questions such as "What am I doing now?" "Is it getting me anywhere?" "What else could I be doing instead?" This general metacognitive level helps students avoid persevering in unproductive approaches…(Perkins and Salomon, 1989, p. 20)*

The SOLE model implies that support for reflection, with a view to metacognitive development, should be designed in to the learning processes themselves but may be also draw from the life development experience of the student.

Personalise

The advantages of being able to personalise any learning experience is well supported in situated learning theory (Lave and Wenger, 1991). The individual life context, which

the learner occupies, is a source of real-world activities learning designers can build. They might want to reflect on the answers to questions such as; is the learner face-to-face or online? Are they working part-time or full-time, studying for a professional degree, trade or craft or some life-work as yet ill-defined? Is this something that can be developed as a theme for personal reflection? What prior-learning, pre-requisites or co-requisites might be drawn on in the learning design?

In a broader context, the need for personalised learning is made evident through inclusive teaching practices. In a higher education world, inclusive teaching responds to increasing diversity in the student population. Using Taylor and May's four diversity dimensions (Thomas and May, 2010) as identified in Table 13, we map the personalisation element of the SOLE model onto two of these, the educational and dispositional dimensions.

Diversity dimensions	Examples
Educational	Level/type of entry qualifications; skills; ability; knowledge; educational experience; life and work experience; learning approaches.
Dispositional	Identity; self-esteem; confidence; motivation; aspirations; expectations; preferences; attitudes; assumptions; beliefs; emotional intelligence; maturity; learning styles; perspectives; interests; self-awareness; gender; sexuality.
Circumstantial	Age; disability; paid/voluntary employment; caring responsibilities; geographical location; access to IT and transport services; flexibility; time available; entitlements; financial background and means; marital status.
Cultural	Language; values; cultural capital; religion and belief; country of origin/residence; ethnicity/race; social background.

Table 13 - Student Diversity (Taylor & May 2010, p7)

A range of experiential factors play into this SOLE element. An individual's prior educational experience has a profound impact on their ability to engage in further learning (Walberg and Tsai, 1983). Both the level of educational qualifications and the nature of the learning experience, whether it was primarily practical and applied or more academic and intellectual, is a pre-determinant for future learning along with a range of social factors. A student's existing skills, ability, knowledge, and capabilities require attention in the learning design context. Psychological factors related to 'dispositional' considerations which include their sense of personal identity, self-esteem, confidence, motivations and aspirations also should be considered. Whilst it may at first appear nigh on impossible to design with all of these factors addressing a distinct individual's needs, it is certainly possible to design learning that draws on these facets and response to them in principle (Perkins and Salomon, 2012). Individuals' preferences, attitudes, functions, beliefs and perspectives, all of which constitute an individual's personal epistemology are also then filtered through an experiential filter including emotional intelligence, maturity, gender differentiation and sexuality. Clearly there is no universal learning design solution that adapts to all of these facets of the individual but in sociological terms one might deem these to be an individual's 'personal profile', part of their personal epistemology (Hofer, 2008).

Contextualise

The next element of the model is derived from the need to explore the social and/or professional context in which the individual operates. Building on situated learning into the broader notion of social-constructivism (Berger and Luckmann, 1991) here we need to address the 'indirect non-course' context in which the learner lives. This is a source of real-world activity we can build into our course design. We might want to ask whether the cohort is a homogenous or heterogeneous group, defined by cultural, language, ethnicity or some other dimension? What 'external' social contexts can we reference in our learning design? Are students working and could their work contexts be cited? Are there diversities in life contexts which afford opportunities to encourage contextual learning, can learners be asked to share social differences? What learning might occur with other non-peers, elders, siblings, social or leisure contexts?

We may again wish to use Thomas & May's definitions of diversity dimensions to interpret this element (see Table 13), highlighting the identification of the circumstantial and cultural dimensions as being significant in inclusive teaching (2010).These position individuals in a broader social context both in the sense of an individual's day-to-day physical reality, however ephemeral, and their broader cultural context. Circumstantial factors include age, disability, marital status, nature of employment, caring responsibilities, as well as considerations such as an individual's geographical location, their access to IT and transport services. To these we might add someone's financial background and the degree to which they have time available and their flexibility to engage in learning. In addition to these personal identifiers within a given social context there is a broader societal mandate for learning, cultural factors such as language, values, cultural capital, religion and belief, country of origin and of residents, ethnicity, and social background. All of these factors impact on an individual's participation in a collective epistemology (Weber, 2011).

In 2018, higher education UK government policy advocates a greater degree of work-based learning, degree apprenticeships and on-the-job training. It then becomes important for those responsible for designing education in a university context to think well beyond the classroom and to draw on the individual learner's context to reinforce their learning. This is proving a challenge for a great many higher education providers. This continues to be evident in the design of many programmes in which the focus remains on the intellectual content and associated skills rather than on a broader range of outcomes and competencies (Atkinson, 2015).

Collaborate

Another more explicit manifestation of socially constructed knowledge is through peer supported learning or learning in groups. In the SOLE model this is identified as direct engagement with fellow students on the same learning cycle, which can be reasonably directed by the learning designer but does not require any tutor-led action. It is based on the principle that the pursuit of knowledge requires the support of others in a social context (Berger and Luckmann, 1991). It asks designers to consider what opportunities exist for an in-class, or online, exchange of views, co-construction and co-resolution. What opportunities for negotiation, sharing, joint inquiry or critical-friends exist within

the course? Is collaboration, critique, or inquiry an identified learning outcome? Are there reasons why group work would contribute to an intended learning outcome? Are there specific skills to be learnt through particular forms of collaboration?

The notions of peer moderation, group working or collaborative learning have become widely adopted (Jaques, 1984) although somewhat diffused in higher education practice without much attention being paid to individual's learning dispositions or measurable learning gain (Lavy, 2016). It is certainly true that employers value students' ability to work collaboratively in order to achieve a defined goal. It is less evident how much of the group work assigned to students service that purpose. Group work very often appears to be used as a device to break up a learning session on the less than well-informed belief that learning together is in and of itself a powerful pedagogical device (Riebe et al., 2016). Where there are examples of assigning students to working groups over a sustained period, say throughout an entire module, year or even programme, there is evidence that such an arrangement develops beneficial competencies although not explicitly because of the learning context, rather through interpersonal dependencies and socialisation (Gagnon and Roberge, 2012; Knight, 2017). In the context in which the majority of productive employment requires individuals to work with each other there is clearly a rationale for designing learning around the collective development of group attitudes, orientations and solutions. As we shall see, the development of students' competencies with reference to the interpersonal domain is rarely defined in a higher education context and yet this particular dimension of that domain – collaboration, working with groups, or 'teamwork' – has significant value in disciplines as diverse as law (Ryan, 2017) and dance (Schupp, 2015).

Learning with others may also have an indirect life-skill benefit in the ability to 'read the crowd', to follow another person's line of sight and to pay attention to what they perceived to be important. In its more formal interpretation, it is directly aligned to social constructivism as a sociological theory of knowledge. Drawing on Alfred Schutz's work in the 1930s towards a sociology of knowledge (1972), Berger and Luckmann (1991), in work originally published in 1966, suggest that individuals and groups interacting in a social system over time create representations of each other's actions

to the extent that this becomes socially agreed knowledge. Clearly group work has a role in higher education when articulated meaningfully.

Engage

Beyond direct synchronous 'contact-time', regardless of whether real-world or virtual, the facilitation of learning takes a range of forms. In the SOLE model, this facilitation is defined as the time and associated activity allocated to asynchronous engagement involving the teacher. Designers are invited to consider what level of direct engagement with learner activity is required of the tutor to support and progress student learning. What degree of online intervention (email or fora engagement) is commensurate with the learning design; are students online and require tutor guidance? To what extent is the tutor' presence required and motivational? What periodic interventions might a tutor make to contemporise the learning context, drawing on current literature or social contexts to make the learning real-world relevant?

Given the enormous growth in online learning over the last 30 years there has been a distinct growth in interest in the skills of learning facilitation rather than directive teaching (Collis and Moonen, 2001; MacDonald, 2006; Salmon, 2000). Self-directed learning has become a mantra in higher education and the need to develop students' skills for taking responsibility for their own metacognitive development is now aspired to, although rarely clearly articulated, into most programme design. The desire to empower learners to independence often runs counter to their expressed demand of more 'tutor-contact'. At the time that the SOLE model was developed, the primary concern of the institution in which it evolved, Massey University, was the development of a blended delivery model from an existing face-to-face programme. As a result, the need for asynchronous support for students through well-designed guided activities, timed appropriately to allow for feedback and reflection, was critical.

In practice of course, a great deal of learning is through asynchronous facilitation. When one reads a book, the author is not physically present and yet, if well written, provides a voice to the learning engaged in. There is a rich history in distance learning provision, correspondence schools, schools on the airwaves, and more recently

through computer-based materials, in supporting learning without a teacher being physically present or being 'present' at the same time (Rowntree, 1994). Arguably in any given learning context such absent teacher moments are critical to allow the learner to assume some degree of responsibility. When properly structured and integrated into a learning programme they become very powerful indeed.

If we adopt a broad definition of self-directed learning, as defined by Malcolm Knowles,

> In its broadest meaning, 'self-directed learning' describes a process
> by which individuals take the initiative, with or without the assistance
> of others, in diagnosing their learning needs, formulating learning
> goals, identify human and material resources for learning, choosing
> and implement appropriate learning strategies, and evaluating
> learning outcomes (M. S. Knowles, 1975, p. 18)

we see there is room for assistance to be provided to the learner even in the context of a self-directed learning experience. Educators, whether in formal or non-formal contexts, should not abdicate from the responsibility for designing learning experiences that facilitate the SDAL to engage appropriately.

Connect

The SOLE model defines tutor contact, or 'to connect', as time and activity allocated for real-time synchronous engagement either in real-world or virtual contexts. Designers are encouraged to consider what balance of face-to-face, or virtual contact time, is appropriate throughout the course? Does institutional timetabling allow variance throughout the course; might the student choose to engage to a greater extent at the outset of the learning process and again for summative purposes? If learning materials are supporting domain knowledge acquisition, what is the most effective use of the tutor's time?

There is often a role for real-time instruction, guidance, motivation and structuring of the learning experience. This element of the SOLE model is flexible enough to incorporate all forms of face-to-face teaching from a formal lecture to an individual tutorial and all forms of digital real-time interaction. It does, however, advocate an

analysis of the learning purpose and processes in order to optimise the time that the individual faculty member spends in a real-time context. In my experience of working in higher education, I have regularly witnessed faculty using classroom time to repeat content that has already been shared, or reading that has been assigned, simply in the belief (most likely well-founded) that the students will not have done the pre-session work required. This is not a failure on the part of the faculty necessarily, but it is clearly a structural flaw in the learning design. The challenge of allocating time appropriately for different learning tasks has emerged as a quality enhancement priority across education through the notion of the 'inverted classroom' (Lage et al., 2000), the use of contact time to review content knowledge acquired elsewhere. This has been popularised under the guise of 'flipping the classroom'. Faculty are a valuable asset in any institution and a necessary resource for students; it is beholden on learning designers to make the very best use of them.

Inform

The last of the nine elements is the 'learning material' being provided, usually in advance, primarily to support knowledge acquisition. In the SOLE model this uses the active verb form 'to inform'. Designers are encouraged to reflect on what pre-existing material exists. Whether existing Open Educational Resources (OER) could be adapted to suit their learners' needs. Would a single set-reading be a helpful reference point? What capacity for deep engagement with resources exists? Are seminal texts identified to students as such; if not, are they truly necessary? What opportunities exist for learners to assist in developing and refining the creation of learning materials, for example in the joint creation of an online glossary or a shared annotated bibliography?

In higher education the tendency is for faculty to want to generate their own learning resources when in reality there is already a wealth of resources to draw on (Littlejohn, 2003; Ryan, 2000). The SOLE model encourages faculty to search for and identify existing materials before spending valuable time developing alternatives. Indeed, it encourages faculty to adapt materials *with* students rather than *for* students as part of the learning strategy, challenging students' assumptions about the veracity of content at the same time (Smith, 2017). Learning sources in whatever form, written, audio or visual are the foundation of most formal learning processes. The use of any media in

any learning process introduces a degree of structure and formality. There is always an intent in the development of any media artefact which will then be subsequently interpreted, adopted or rejected by its receiver.

Having outlined the nine elements of the SOLE model we now move on to explore the relationship between this model and learning educational taxonomies. The reason for this is that we will explore the different interpretations of the notion of learning outcomes already raised in discussion of the GLOs in the heritage sector.

Relationship to Educational Taxonomies

Given that GLOs have had some impact on heritage education (Brown, 2007), it is appropriate to expand on the current thinking around the purpose and structure of learning outcomes in a non-formal and formal educational context. This is also necessary to provide a solid foundation for an appreciation of the way the SOLE model is intended to make use of constructive alignment in the design process. Of relevance is another semantic discrepancy that emerges between, and within, US and UK academia with respect to distinction between course aims, goals, learning objectives, learning outcomes and competencies. It is worth noting that there is no single universal lexicon for terminology in education even within a single language. Given the lack of space it is impractical to enter into a fulsome discussion about this terminology; however, it is important to illustrate that my practice, which underpins the SOLE model and toolkit, uses the following convention;

Graduate Attributes	Professional Standards	Institutional descriptor of capabilities on graduation
Programme Aims	Module Aims	Aims written for internal audiences that defines the role the programme or module interacts with others and the field of study. Mapped to Programme Aims
Programme Goals	Module Goals	Version of aims written for a student audience with the same intent, to position leaning in a disciplinary context. Mapped to Programme Goals
Programme Intended Learning Outcomes	Module Intended Learning Outcomes	Intended Learning Outcomes at Module and Programme Level, mapped against each other, define the skills, abilities and competencies across five domains of learning. All these ILOs will be assessed
	Session Objectives	Session Objectives use equivalent active verbs to define a range of learning activities which are not directly assessed

Figure 9 - Terminology as practiced through the SOLE model and toolkit

Bloom used the term educational objectives with reference to three educational domains, the cognitive, affective and psychomotor domains (Bloom, 1956; Krathwohl et al., 1956). When referring to Bloom's 'educational objectives', these are to be interpreted in my current practices as being outcomes that are assessed. This differentiates learning outcomes from learning objectives which use the same active verb forms to define activity but are not assessed.

All too often Higher Education stresses the cognitive, intellectual skills, over reliant perhaps on Bloom's taxonomy (Bloom, 1956), and neglects the affective, psychomotor, inter-personal and metacognitive domains. This has several consequences; it relegates anything that is not seen as 'intellectual', the linguistic and logical-mathematical intelligences , to a lower order of skills despite the fact that employers and students recognise and demand the need for broader skills (Mason et al., 2006). Some in academia distinguish broad competencies from learning outcomes rather than making use of alternative domains (Atkinson, 2015). In so doing, they force programme

leaders to 'bolt-on' skills modules that demand additional institutional and student. No learning design is truly student-centred if it is neglecting any domains of experience (Atkinson, 2011b).

The model of Intended Learning Outcomes (ILO) development below advocates the distinctiveness of all five educational domains focusing the module designer on the 'skills' that will be acquired independent of the 'subject knowledge' being developed. This focus across all five domains provides a framework for a module that is balanced in terms of what the student does, the context in which they do it, and, correctly assessed, ensures all these intended learning outcomes can be justifiably claimed in the student's transcript.

A taxonomy is a scheme of classification. Educational taxonomies across different domains of learning are an attempt to structure the increasingly complex process involved as the student's learning develops from a single aspect of knowledge or process through to an ability to extend knowledge or practice into a new domain.

Educational Domains	Description
Cognitive: Intellectual Skills (thinking)	The deployment of knowledge structures, from the 'knowing the facts' towards high order thinking skills in which these facts become operationalised and transferable (Bloom, 1956; Anderson and Krathwohl, 2001).
Metacognition: Knowledge Skills (epistemological) –	Personal epistemological development, my articulation of the knowledge dimension (Anderson and Krathwohl, 2001; Scott and Berman, 2013).
Affective: Professional Skills (value)	Development of an individual's values, and includes their abilities with respect to self-perception through to abstract empathetic reasoning (Krathwohl et al., 1956; Dearing, 1997; Hillage and Pollard, 1998).

Psychomotor: Practical Skills (manual)	Manipulation skills of tools or instruments (including software) (Simpson, 1966; Dave, 1967; Harrow, 1977).
Interpersonal: (communication)	Four dimensions of interpersonal communication, conflict-resolution, collaboration , cross-cultural awareness and communication itself (J. C. Atkinson, 2014; Bennett, 1986).

I have developed circular representations of these five domains to use in my practice (Figure 10), illustrated below for structure rather than legibility. These representations of the educational domains have adopted the same progressive complexity articulated in Biggs's SOLO taxonomy (Biggs and Collis, 1982), but by using circular forms they avoid the criticisms made of more linear approaches (Dall'Alba and Sandberg, 2006). The inner circle represents the proto-verbs for each of the domains, the central circle provides active verbs with a view to the authoring of intended learning outcomes, objectives and learning activities, and the outer circle representing the evidence forms, and potential assessment modes. The five taxonomies represent all personal adaptations. In all cases, language has been modified towards the active verb structures required for stating ILOs. This is significant in that the emphasis has moved away from describing what the focus of the teaching is supposed to be, to the demonstrable outcomes of the learning.
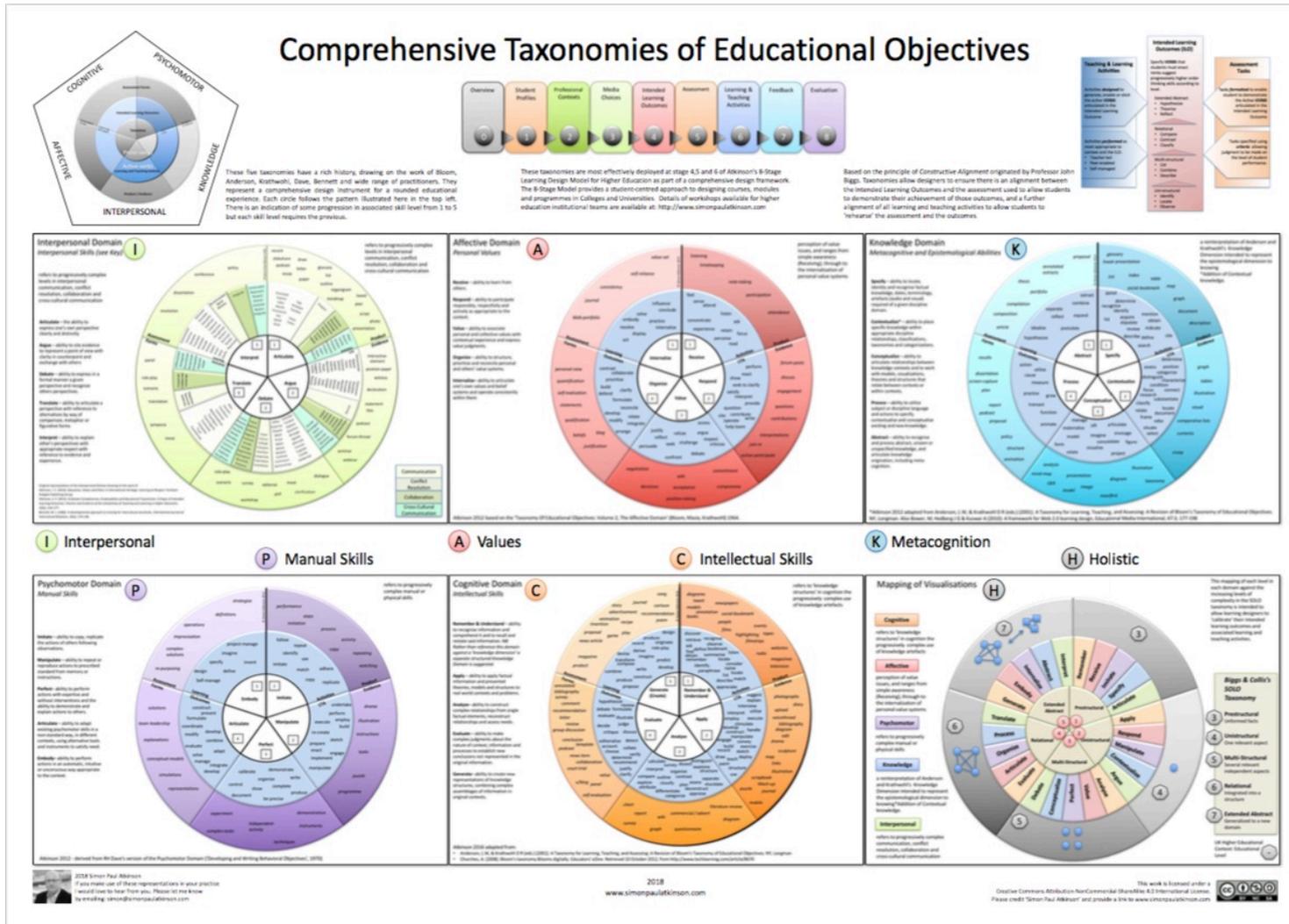
Figure 10 - Illustration of five domains as circular representations

Learning Design Frameworks

It is my contention that the emerging skills required of academics in higher education, and in adult education more broadly would also be of value to heritage educators servicing the SDAL. University academics should not only be supported to design new courses but also to integrate learning design principles, in order to re-evaluate, re-model, and redesign their teaching every year to account for new physical spaces, new student contexts, as well as new digital opportunities (Weller, 2011). Academics are higher education's greatest asset, they are an expensive resource, and one which must be adequate to the task. The professionalisation of faculty as teachers, researchers and administrators is, in many respects, a question of identity. Just as the nature of knowledge and meaning making has evolved radically in the last 50 years, so too has the role of the academic (Henkel, 2005).

There has been a change in the way that individuals communicate, in the way that they store information, share resources, exchange views. Individuals from all generations are making new information, in new forms, they are creating knowledge and new interpretations of that knowledge, they are creating new meanings, sharing insight, learning to be critical, learning to compare and evaluate (Jenkins, 2009). Individuals are changing the world around them, developing user-generated contexts in which they can be the individuals they aspire to be. Academic theories struggle to keep up given that "theories which were suited to mass media and interpersonal communication are no longer suited to digital media" (Schroeder, 2018, p. 1).

In an environment in which learning takes place through increasingly social networks, and in which content is often freely available, notably through the burgeoning of the Open Educational Resources movement (OER), the notion of the academic as the guardian of canonical knowledge is slowly evaporating (Hylén, 2007). Other valuable skills are replacing this guardianship role (Luehmann and Tinelli, 2008). The barriers to OER are rarely purely technical (De Liddo, 2010), there is a perception on the part of many academics that only knowledge which they have created or contextualised, and transmitted, is suitable for their students. To reuse learning resources will require their re-contextualisation (Pegler, 2012; Thorpe et al., 2003), but since one of the most

effective means of learning is to deconstruct and reconstruction knowledge, even the process of reusing, reforming and reconstructing content may serve to actively engage the student and form part of the learning process.

Existing frameworks suggest that learning content and process should be transparent to the learner (Boud and Prosser, 2002), and that learning is distributed between the individual and the tools at their disposal (Hung and Chen, 2001). Frameworks also stress the need for learner engagement regardless of whether or not the context includes technology. Indeed, the level of technology adoption is largely irrelevant to the underlying principles of these frameworks. The primary importance is assigned to learning context and learner expectations, to the socially and culturally embedded nature of learning.

Specific instances of learning design development tools have successfully embedded theoretical perspectives and support exists but nonetheless faces the challenge of achieving widespread adoption. The Open University's development of the downloadable java application CompendiumLD, a rich visualisation tool still faces the challenge of having faculty adapt to its drag-and-drop interface whilst coming to grips with the cultural challenge of use and reuse of learning artefacts (Conole and Weller, 2008). A similar challenge is faced by Learning Design Support Environment (LDSE), later defined as the Learning Designer, the output from an ESRC funded project between 2008-2010, in which a web-based application, requiring registration, enables users to build shareable learning designs in a supportive context (Laurillard, 2012). Likewise the LAMS system (Learning Activity Management System) appeared at least initially to have struggled to achieve levels of adoption beyond education as a discipline (Alexander et al., 2010), this despite the fact that it has been integrated into a variety of virtual learning environments such as Moodle, Blackboard, Sakai and others .

I have made use of each of these three learning design environments in the past (Atkinson, 2009) but concluded that the central challenge we face is the ability of staff, faculty and designers, to design, articulate and share appropriate models of learning. Whilst it is unrealistic to expect all academics to be specialists in learning theory, it is not unrealistic to expect that they be sufficiently versed in learning practices (theories

in wolves clothing) as to enable them to visualise and design appropriate learning opportunities. The danger of 'leading' change by adopting a technology solution to course design is that teacher focused practices are simply remodelled through technology without the necessary shift towards a learner centred epistemology.

Conclusions

This chapter has outlined the SOLE model from its origins in a formal tertiary learning context, through to its development and maturation, and its application in the context of higher education. It has proved itself a robust tool in supporting an educational development dialogue with module and programme designers in three different institutions. It has been downloaded in its various versions from the website (solemodel.org) over 1200 times. It has been anecdotally reported that it has been customised and translated, though this is difficult to verify, by a range of institutions in the UK and overseas.

The relationship between my practice, that resulted in the development of the SOLE model, and both constructive alignment and the use of taxonomies of educational 'objectives' across five distinct domains of learning has been explained. By positioning the SOLE model alongside a number of learning design initiatives I have contrasted the low-tech approach, but also indicated the enduring requirement for support and guidance in any implementation. The next chapter will identify the potential of the SOLE model to answer my research questions, principally the extent to which heritage and higher education have anything to learn from each other through dialogue. I will explain the structure of the research process, its theoretical approach, methods and instruments before articulating the data captured as a result.

Chapter 5: Methodology and Data

> *Meaning, especially as it is formed through the use of language, is*
> *what holds people together socially; it is the social glue that allows*
> *action to proceed in the form of conflict or cooperation (Layder, 2006,*
> *p. 75)*

> *…so we kept coming back to what we know, because it's kind of like*
> *… we want people to reflect, and assess and feedback, but it's almost*
> *like we didn't have the answers of how to do that. How does that*
> *work? How do we get that? We can talk to a few, but then we kind of*
> *went back to talk about schools' assessment (B23)*

In the two review chapters, I explored the literature base of adult education in a heritage context, articulating a revised typology of learners and positioning the SDAL within this. I then identified the SOLE model, developed in the context of learning design in higher education, as a suitable instrument for exploring the interpretations of the SDAL from a heritage perspective. This chapter explains how the data were gathered through two workshops utilising annotatable versions of the SOLE model with 21 participants. Although not a statistically significant sample, given the global reach of the heritage sector, the participants are informationally representative, with a diverse range of institutions represented (Boddy, 2016). The resulting data described are designed to answer the research questions, namely;

1. How do heritage institutions interpret the needs of self-directed adult learners?
2. What support do self-direct adult learners need and are these being met by heritage sites?
3. Is there a benefit from interdisciplinary dialogue between educators from the higher and heritage sectors?

The chapter is divided into two parts, the first dealing with the methodological process and the second with the data generated. The first part consists of eight inter-related sections. As illustrated in Figure 11, the chapter structure explores each subsequently

embedded stage of the methodological process to build a framework for data collection. All frameworks rely on the articulation of concepts and their inter-relationships. There is no one single agreed research structure, or indeed even in the agreed articulations of distinct terminology, within the social sciences or humanities, let alone at the intersection of both. Some researchers conflate conceptual and theoretical frameworks, some regard one as the sub-set of the other (Maxwell, 2013). As illustrated in the diagram below, the first section revisits briefly the real-world context already described in greater detail in Chapter 1 in order to contextualise what follows. The following section outlines the conceptual framework in greater detail positioning the research within precise temporal and spatial coordinates.
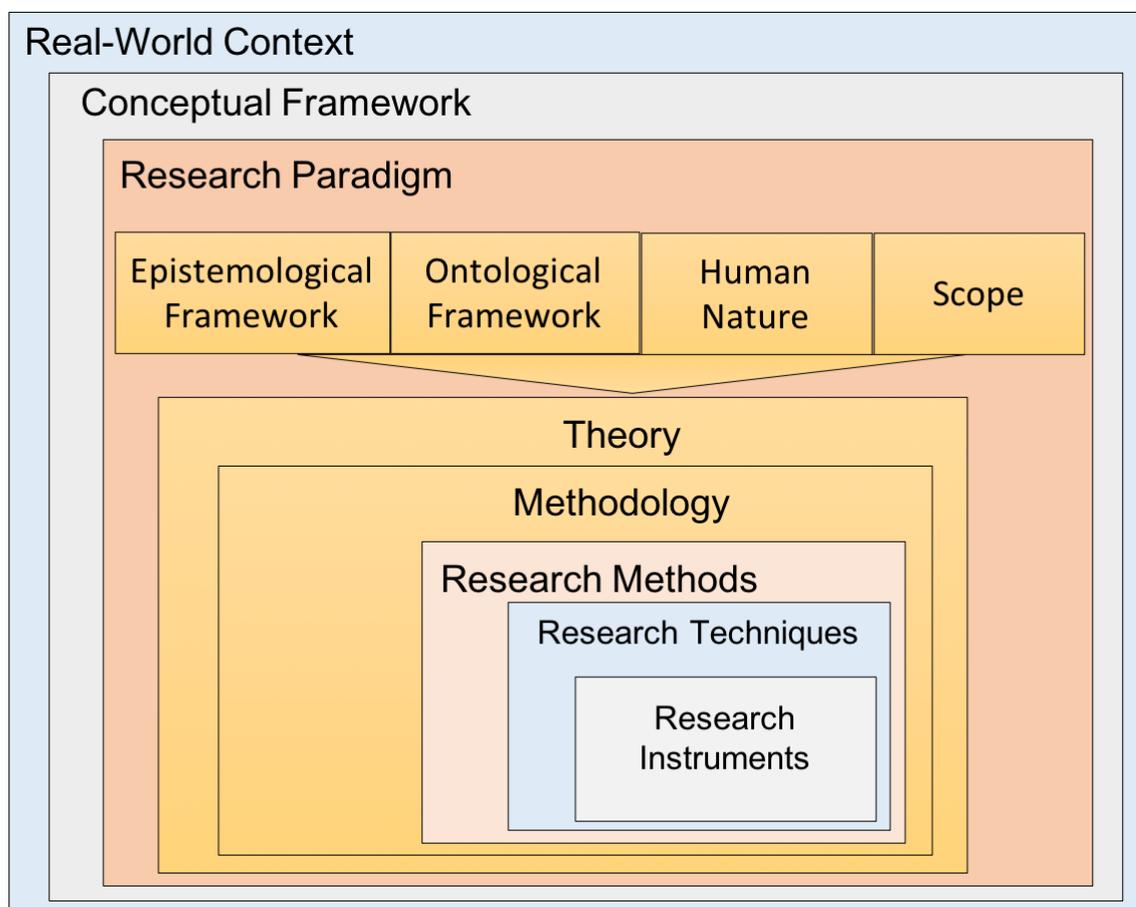
Figure 11 - Structure for Methodological Process Identification

A conceptual framework, establishes the *a priori* position of the researcher in the reality within which research questions are to be answered (Casullo, 2003). It is used to make conceptual distinctions (a heritage site rather than a leisure venue) (Marmol et al., 2014) and organise ideas (the potential value of a higher education learning

design model explored with heritage professionals). This conceptual model may include, or generate at the outset, theories, but it is primarily designed to identify the scope of research and provide a context for the later interpretation of findings.

The third section unpacks the research paradigm at play, articulating the epistemological and ontological positions adopted, the human nature (agency) foundations and scope of the research. It also identifies the underpinning theory and what follows, the methodology. The final sections describe the methods, techniques and instruments used in order to generate data in order that research question may be answered. The chapter ends with a brief conclusion.

Real-World Context

The real-world context for this research is the interface between the individual adult visitor as an eager 'learner' and the world of heritage. This has been fully articulated in my introduction.

Conceptual Framework

Within this real-world context it is necessary to define the conceptual framework (Berman and Smyth, 2015; Ravitch and Riggan, 2016) which serves as the explanatory infrastructure for the entire research project. The term 'conceptual framework' is applied to a range of contexts, disciplines and scales and therefore has no single agreed definition (Ravitch and Riggan, 2016). Such frameworks are most effectively conceived of as abstract representations; in my work this usually results in a visualisation (Figure 12). The use of a defined conceptual framework provides a set of defined boundaries within which I, as the researcher, will approach the exploration of the research questions.

A conceptual framework serves to clarify and articulate relationships amongst concepts in the research. It provides a context for the interpretation of research findings and to explain observations. More broadly it also serves to encourage theory developments where these prove applicable to practice.
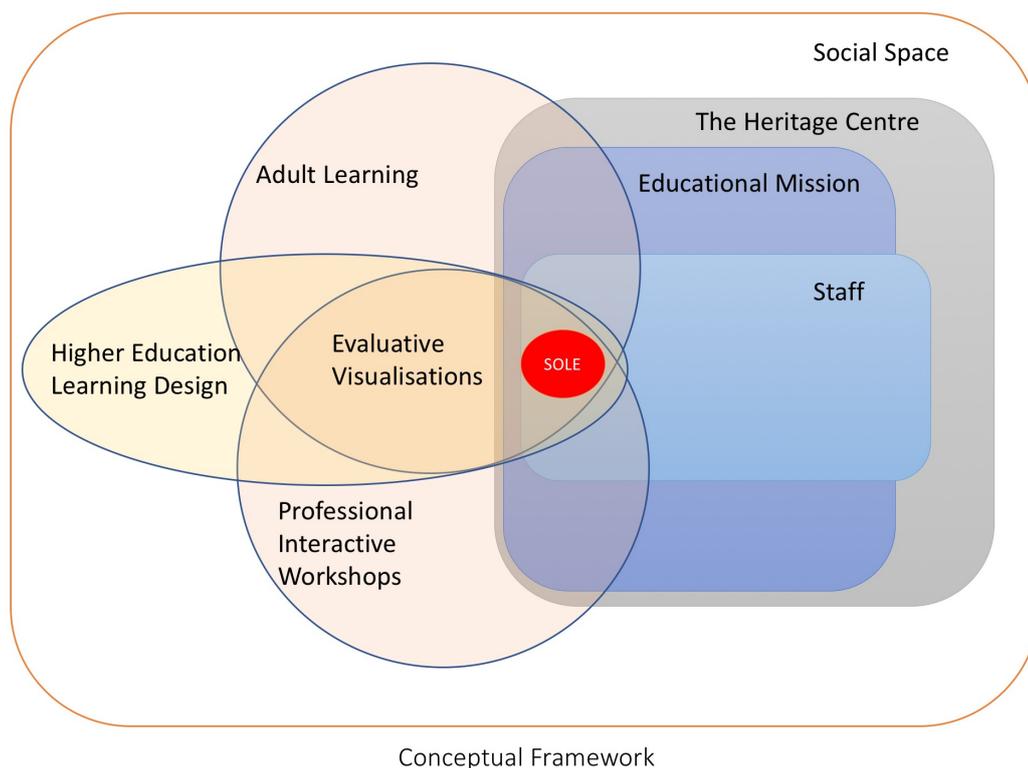
Figure 12 - Conceptual Framework for this Research Project

The concepts, illustrated above, that frame this research are:

Concept	Description
Social Space	The space of the SDAL, looking for supported learning opportunities. These individuals are most likely to be expanding on an existing *Social Capital* (Bourdieu et al., 1997) asset bank rather than seeking casual experiences. In this research, the SDAL is expressing a desire to learn through cultural engagement.
The Heritage Centre	Museums, art galleries and heritage venues such as castles, grand houses and battlefields. Any 'planned' or 'managed' heritage space that can be experienced in the context of non-formal study.
Educational Mission	The vast majority of managers of heritage fit within an organisational context, be they government agents, municipal authorities or institutions who have formalised policy and procedures covering their education, engagement or outreach programmes or practice.

Staff	Relevant heritage personnel include those with a distinct educational remit within their organisational context. It may also include other policy makers and actors who impact on the educational programming or opportunities for the SDAL.
Adult Learning	As defined in Chapter 3 – the conceptual space of 'Adult Learning' is large. Its broadest definition in regard to all learning, regardless of inclination, purpose or context, acquired by any individual who has reached the age of majority, normally 18 years of age. In this conceptual framework, the subset with which I am concerned is the SDAL who is not undertaking any formal studies. Whilst they may be an adult student, my focus is not on students of heritage or art, although it is acknowledged that many art and heritage students visit heritage venues for pleasure rather than as part of their studies.
Professional Interactive Workshops	The 'professional' distinction here refers to the focus groups as being those who are employed in career orientated enquiry. Given my personal context in which I regularly deliver such workshops within my professional context, I draw a distinction between 'public' and 'professional' workshops. The concept of 'interactive' is again a subset of a broader range of workshop possibilities. Although linguistic convention suggests that a workshop is by its nature interactive, it is not always the case. Again, drawing on my professional experience, interactivity always generates more valuable outcomes than passive workshops. Workshops are simply titled to distinguish them from surveys, polls, interviews or other data collection contexts.
Higher Education Learning Design	As an educational developer of 25 years' experience I have been engaged in six different higher education institutions in the UK and New Zealand designing modules and programmes. This is a professional space with which I am experienced. I have taught learning design and delivered a wide range of professional engagements in

	support of my scholarship (Atkinson, 2013a; Burden and Atkinson, 2008a, 2009).
Evaluative Visualisations	This is the least defined concept in the entire framework. It combines two elements, that of 'evaluation' and of 'visualisation'. Professional experience again suggests that professional educators, and by inference other professionals too, find visualisations helpful in identifying the practical nature of applied theory (Conole and Fill, 2005). Evaluation is a recognised concept in higher education context although language remains contested. North American colleagues routinely use the term in place where their UK contemporaries would use 'assessment'.
SOLE	The Student-Owned Learning Engagement model (Atkinson, 2011b). The SOLE model itself is a schematic or conceptual model designed to convey concepts and propositions to educational design teams. This aims to ensure that a programme of learning is correctly constructively aligned (Biggs and Tang, 2007) and well-balanced in terms of its intended learning outcomes (Atkinson, 2015).

Table 14 - Explanations of Conceptual Framework Elements

Much of the research literature chooses to draw a distinction between 'Conceptual Frameworks' and 'Theoretical Frameworks' (Patrick, 2018). The former being used to define enquiries in an intellectually unbounded space and the latter to define enquiries bounded by theory. I believe there is a place for the cohabitation of both frameworks, as illustrated earlier in Figure 11, the conceptual framework in this current research serves to broadly define the intellectual influences at play. As we will see shortly, there remains room for the exploration of theoretical frameworks within this enquiry.

Research Paradigm

The Research Paradigm defines the basis on which social reality is being interpreted by the researcher. Within my inter-related and overlapping series of concepts (Figure 12) an emergent research paradigm can be developed. I believe there is value in following a procedural approach to the articulation of the research paradigm whilst all the while

acknowledging that it is at times a messy and uncomfortable process (Bryman, 2006; Cohen et al., 2000). The Research Paradigm seeks to identify underlying assumptions or preconceptions about the nature of the research. These can reveal profound ontological assumptions (being, reality), epistemological (construction of knowledge), methodological (research strategy), cultural beliefs, linguistic abilities and social values, on the part of the individual researcher.

Guba welcomed the ambiguity in definitions around the concept of the paradigm, suggesting that "...I believe that it is important to leave the term in such a problematic limbo, because it is then possible to reshape it as our understanding of its many implications improves" (Guba, 1990, p. 17). Despite the lack of clarity there is no question of the importance of establishing a context for enquiry, "paradigm issues are crucial; no inquirer ought to go about the business of inquiry without being clear about just what paradigm informs and guides his or her approach" (Guba and Lincoln, 2005, p. 218).

In social science research, there are two competing research paradigms, each of which can be sub-divided by discipline perspectives. The two dominant research paradigms are the Objectivist and the Subjectivist (Table 15). I begin, therefore, with a simple illustration of four foundational assumptions underpinning these two views of social reality and identify the path that this research follows (Burrell and Morgan, 1979).

Subjectivist approach to Social Science	Assumptions	Objectivist approach to Social Science
Relativism *(All truths are dependent on circumstances)*	Ontology	Realism *(Some truths are absolute)*
(Subjectivism) Anti-Positivism	Epistemology	(Objectivism) Positivism
Voluntarism *(I choose freely)*	Human Nature/Agency	Determinism *(I am socially restricted in my choices)*
Idiographic *(individual/Personal)*	Scope	Nomothetic *(Collective)*

Ontological Position

The first of the four foundational assumptions is an ontological one, concerned with the nature of reality itself. As illustrated in the table below, there is are range of philosophical positions within which social science research inevitably situates itself as it asks: what exists in the human world about which it is possible to acquire knowledge (Moon and Blackman, 2014).

REALISM: only one reality exists			RELATIVISM: multiple realities exist	
Naïve realism	Structural realism	Critical realism	Bounded relativism	Relativism
Reality can be understood through proper use of appropriate methods	Reality can be described through scientific theory although its true nature remains uncertain	Reality can be identified through broad critical examination	Mental constructions of reality, within boundaries, have equal merit (e.g. moral, cultural, cognitive constraints)	Multiple realities exist as intangible mental constructions. There is no reality beyond the subjects

Table 16 - Ontological Positions (adapted from Moon and Blackman, 2014)

Moon and Blackman are natural scientists describing the differences between their approach to research realities and those of the social sciences. Their use of 'bounded relativism' and 'relativism' is not directly informed by the turbulent debates about ethics, philosophy and cultural relativism (Brown, 2008), but it is useful in the current context. I conclude that the ontological position I will adopt is that of 'bounded relativism' because I believe it to be pragmatic to acknowledge that there are pre-existing societally defined constraints in the context in which the research is being undertaken. These constraints, previously outlined in my introduction, are distinguished by a desire on the part of data contributors to share experience and learn from others, mitigated by a sense of institutional privacy and competition.

Epistemological Position

Having identified an ontological position, it is incumbent upon me as the researcher to define my own belief structures, my own personal epistemological position, and to decide whether this needs adjustment in answering my research questions. If we take ontology as '*what* can be known', epistemology is best considered as '*how* we come to know it'. Again, this is an axis of positional statements best represented here in tabular form.

Subjectivism (Anti-Positivism / Interpretivism)	Social-Constructionism	Objectivism (Positivism)
Meaning exists outside the subject	Meaning created from an interplay between subject and object	Meaning exists within an object
Subject imposes meaning on an object	Subject constructs reality of the object	Reality exists within an object independent of the subject

Table 17 - Spectrum of Epistemological Positions

The epistemology debate is often characterised as a binary discussion between objective or positivist and subjective or anti-positivist /interpretivist positions although there are invariably shades of grey. I have chosen to adopt a social-constructionist approach because it represents the basis for a theoretical framework often interpreted as an extension on symbolic interactionism (see below). It also appears to best illustrate the emergent method and instrument design anticipated, given the tangible nature of the objects (paper based SOLE model representations) and the relationships intended to develop between myself, as researcher, and workshop participants. Meaning-making is a central tenant of contemporary heritage practice and participants are expected to be adaptable to the implicit-explicit and intended-unintended outputs that result in engaging with the model. An overview of communication theories and models originally devised for the study of mass have been adapted for museums by Eilean Hooper-Greenhill (1999) and recent work on object-based learning in heritage

contexts (Chatterjee and Hannan, 2017) provide a justification for adopting a research approach that supports the construction of meaning in a tangible form amongst professionals.

Human Nature / Agency

The social sciences, notably sociology, has a long history of internal debate as to the degree of independence of thought and action that is possible by individuals in the context of socially mandated constraints (Layder, 2006). Social theory is bound by dualisms and one of the most contentious is that of agency versus structure. Language again can become troublesome as much is borrowed and shared between disciplines, notably sociology, social psychology and social anthropology. A further complexity emerges based on the 'level' at which different forms of agency might occur: the individual, the proxy and the collective (Oswell, 2006). Individual agency is the choice to act on one's own, proxy agency is acting on behalf of another (another individual, employer or group) and collective agency is to act as part of a larger collective of individuals such as a social or protest movement (Mills et al., 2010a).

For illustrative purposes, I chose to settle on an articulation of this debate by exploring the overlapping perspectives of 'voluntarism' and 'determinism', as typified in the work of Giddens (Giddens, 1976) and Bourdieu (Bourdieu, 1977) respectively.

Voluntarism		Determinism
Structuration Theory	Theory	Theory in Practice
Causality, Duality, Structure	Concepts	Habitus, Field, Capital
Anthony Giddens (1938-)	Authority	Pierre Bourdieu (1930–2002)
Free will	Agency	Contextual responses
Unpredictable actions	Predictability	Predictable actions

Table - Differentiation between Voluntarism and Determinism

In the context of this research, and my presumptions about the 'field' articulated in the introduction, I find Bourdieu's notion of 'Social Capital' outlined in his seminal work of 1979 entitled *Distinction* (Bourdieu, 2010) extremely helpful in contemplating its relationship to educational provision in heritage venues.

Scope

Building further on Burrell and Morgan's descriptions of two alternative views of social reality (see Table 15), I have chosen to rephrase their original use of the term 'methodology' in this context as being primarily referring to the differences of scope, or scale, of enquiry (Burrell and Morgan, 1979). The terms used, idiographic and nomothetic, are in themselves problematic given that there are distinct interpretations between the fields of psychology (Wood and Johnson, 2014), sociology and anthropology (Lyman and O'Brien, 2004). Nonetheless, they do present an opportunity to further reframe the research in terms of its scale and purpose.

Idiographic		Nomothetic
Unique individuals	Focus	Collectives (Cohorts)
Personal circumstances	Evidence	External (Independent) variables
Conclusive	Aim	Probabilistic
Micro	Sociologically	Macro
Qualitative	Methods	Quantitative

Table 18 - Differentiation between Idiographic and Nomothetic Research Approaches

Given the scale of the research and the anticipated lack of homogeneity amongst participants, the research was predicated on an idiographic model, broadly within an anthropological tradition (Bernard, 2002a). Because the research is focussed on an individual's interpretation of their institution's roles and approaches to adult learning, the desire is to attract as diverse (in terms of separate institutions) a range of professional respondents as possible.

Theory

On the basis of an ontological and epistemological belief structure, perceptions of human nature and the scope of the research anticipated, and within the conceptual framework identified, it is then beholden on me to establish a philosophical orientation that will guide the research within an Interpretivist tradition. It is important not to assume that simply because the current research sits in the liminal space between the humanities and the social sciences that the approach would necessarily be an interpretive one (Prendergast, 2017). It is important to establish the rationale for a theoretical framework. Theory is perhaps best understood as the approach to be taken to achieve some active use for the data collected and analysed (Blaxter et al., 2010). Knowing what the purpose of the research is makes identifying a theoretical orientation clearer, and then leads to a body of scholarship within which the research can be situated.

To this end, the fundamental differences in the purpose of research between positivist and interpretivist approaches are worth illustrating, as in the following table.

Assumptions	Positivism	Interpretivism
Nature of reality	Objective, tangible, singular	Socially constructed, multiple
Goal of research	Explanation, strongly predictive	Understanding, weak prediction
Focus of interest	What is general, average and representative?	What is specific, unique, and differentiates?
Knowledge generated	Laws and rules Absolute (time, context, and value free)	Meanings Relative (time, context, culture, value dependent)
Subject/Researcher relationship	Separate	Interactive, cooperative, participative
Desired information	Consistency of actions Universality	Individual responses Collective and individual interpretations

Table 19 - Differentiation of the Research Purposes within Traditions

In this research, I chose to dismiss the notion of adopting a positivist position on the basis that its goal is not to develop predictive conclusions but rather understandings of perceptions and actions on the part of heritage professionals with respect to SDAL. The systematisation of knowledge, and the knowledge generation process, within the positivist paradigm relies heavily on quantification in order to ensure precision in the articulation of the observed (Cohen et al., 2000). This is not appropriate in my context, given that it does not account for the subjective states of individuals. Positivism risks dehumanising human actors without giving proper weight to their intention, individualism and freedom in interpreting their social reality (Arendt, 1998).

An Interpretivist Approach

The emphasis on the individual interpretation of social reality, aligned to an interpretivist position, matches my research objectives. Indeed, the context is multi-layered and complex, and it is anticipated that the SOLE model will lend itself to multiple interpretations. Interpretivism is described as

> associated with the philosophical position of idealism, and is used to group together diverse approaches, including social constructivism, phenomenology and hermeneutics; approaches that reject the objectivist view that meaning resides within the world independently of consciousness (Collins, 2010, p. 38).

Interpretivism involves researchers interpreting elements of the study, integrating individual human actions into a research study. Such that, "interpretive researchers assume that access to reality (given or socially constructed) is only through social constructions such as language, consciousness, shared meanings, and instruments" (Myers, 2008, p. 38).

The interpretivist approach is grounded on both a relativist ontology and a transactional (or subjectivist) epistemology. An interpretivist approach requires the researcher to play the role of a social actor, appreciating the differences between them and others, and between individuals themselves. An exploration of the most commonly cited variations of Interpretivism determined there to be four schools of anti-positivism from which a theoretical framework might derive. These four qualitative interpretivist approaches, phenomenology, ethnomethodology, criticality and symbolic interactionism, all emphasise meaning construction through human interaction with phenomena (or others) in their daily lives (Cohen et al., 2000).

Phenomenology argues that individual behaviour is dependent on one's direct experience, interaction, with a given phenomenon, removing any kind of objective external reality (Husserl, 1970). Through interaction with various phenomena, human beings come to interpret and attach meanings to different actions and ideas. Consequently, they also come to construct new experience. Phenomenology requires the researcher to develop a degree of empathic appreciation of individuals'

interpretive processes. This is by necessity, therefore, a qualitative rather than quantitative process (Moran, 2000).

Ethnomethodology has its epistemological roots in phenomenological sociology (Garfinkel and Rawls, 2005) and is primarily concerned with the individual's construction of every-day common sense reality. It argues that such reality is developed through face-to-face interaction, calling on an individual's societally conditioned 'taken-for-granted' rules about behaviour. These rules enable the individuals to create meaning through their interpretation of an interactive situation. The primary focus of ethnomethodology is the way in which people use interpretation to make sense of social settings (LeCompte and Schensul, 2010).

Initially intellectually attracted to the adoption of a Critical Theory (Habermas, 1985) perspective, I have chosen to borrow some minor analytical lessons from it but chose not to make use of it as a theoretical framework for this research (see Analysis), simply because of the nature of the research questions asked. Critical theory risked focussing excessively on the issues of power and agency. Born out of a 'societal-revolutionary' context in the 1960s, Habermas was critical of existing theories as lacking any transformative function. It is significant that whilst Habermas was writing in the context of philosophy and sociology, Paulo Freire was writing about education with a similarly transformative intent in his advocacy of 'Critical Pedagogy' (Freire, 1996).

The fourth interpretivist approach is symbolic interactionism. A micro-level theory that examines communicative relationships – the exchange of meaning through language and symbols – among individuals within a society. Given the nature of my research questions and the interdisciplinary dialogue that was reflected in the real-world context and conceptual framework, I decided that this approach was the most suitable.

Symbolic Interactionism

George Herbert Mead (1863–1931) is considered a founder of symbolic interactionism although he never published work dealing directly with it. It was Mead's student, Herbert Blumer, who first used the term 'symbolic interactionism' and outlined these basic premises:

- humans interact with things based on meanings ascribed to those things;

- the ascribed meaning of things comes from our interactions with others and society;

- the meanings of things are interpreted by a person when dealing with things in specific circumstances. (Blumer, 1969)

Symbolic-interactionists explore patterns of interaction between individuals and between individuals and their shared objects or symbols. The importance of symbols in building social relationships led sociologist Erving Goffman (1922–1982) to develop a technique called **dramaturgical analysis**. Goffman used theatre as an analogy for social interaction, arguing that people's interactions showed patterns of cultural 'scripts'. According to Goffman, the unpredictability of any given situation requires of individuals that they improvise their roles as the situation unfolds (Goffman, 1959). It is noteworthy that in my own educational development experience I make frequent use of the theatrical performance as a metaphor for classroom interactions. Studies that use the symbolic interactionist perspective are more likely to use qualitative research methods, such as in-depth interviews or participant observation, because they seek to understand the symbolic worlds in which research subjects live.

Alongside dramaturgical analysis, further extensions of symbolic interactionism are forms of social-constructivism proposing that reality is what individuals construct it to be. This construction is deemed a social activity with social constructs being based on interactions with others. Those constructs that endure are widely adopted as they have meanings which are widely agreed-upon. This approach is often used to explore notions of social deviance (Foucault, 2001). Neither of these two more focussed interpretations of symbolic interactionism applied directly to the research context but the nascent notion of using a physical object (the printed SOLE model representations) around which meaning would be created made symbolic interactionism a useful framework to adopt.

It is also necessary to identify the existing criticism of interpretivist approaches and of symbolic interactionism specifically. Most criticisms of interpretivist approaches stem from its subjective nature, the opportunity for researcher bias. The primary data generated in interpretivist studies can rarely be duplicated or mirrored through

subsequent studies since data is heavily impacted by personal viewpoint and values. The reliability and representativeness of data is deemed questionable. The reliability of data is more robust where the researcher has been fully transparent in their contextual relationship to the subjects and all identifiable biases are shared.

Criticisms of symbolic interactionism are principally concerned with the narrow focus of symbolic interaction. I believe that is one of its greatest strengths focussing the research on the interactions sited around specific objects. This research does not aim to answer the broader question of the heritage sector's role in public education, nor whether adult visitors are satisfied with their experience; it is concerned singularly with the questions of how heritage venues are able to fulfil the aspirations of the SDAL. Based on naturalistic approaches of data collection, ordinarily in the form of interviews and observations, my own interpretative approach within a symbolic interactionist tradition, using the SOLE Model, represents an original contribution to methodological approaches.

Methodology

The research techniques and instruments, the 'methods', must be appropriate to the methodological position assumed, which in turn must reflect the epistemological and ontological assumptions, the paradigm, in which the research is carried out. They must also be effective in capturing data, feasible within time constraints and available resources.

	Definition	My Research
Research Methodology	The theoretical perspective of the research. The overall nature of the research activity. Symbolic Interactionism.	Empathetic interaction. Constructed realities are investigated through interaction between objects (SOLE Model) and subjects (participants) and the investigator.

		Qualitative including hermeneutics & dialectic interchanges. Analysis by case.

Table 20 - Research Methodology (including adaptations from (Guba and Lincoln, 2005)

The research methodology is dictated by the theoretical perspective of the research, in this case that of Symbolic Interactionism. This implies, but does not constrain, that whichever method, techniques and subsequent instruments are used in data capture will afford rich data for analysis.

Empathetic interaction

I am not a heritage professional, I am an educator. I am married to a heritage professional and consider myself 'culturally hungry'. I understand many of the professional constraints under which heritage professionals operate and regard myself as a researcher, and as an individual, to be empathetic to their mission. I also regard myself as a socially enabled individual, capable of engaging in a supportive dialogue with others, particularly those educated adults I see as my peers.

Constructed realities

Given that part of the methodological guidance suggests that investigations are meaningfully carried out through interaction between 'objects' and 'subjects' and the 'investigator', a 'workshop' is an appropriate approach. It represents a constructed reality approach making use of representations of the SOLE model, varied in format according to contexts.

Qualitative interchanges

The personal interchanges between myself as the researcher and the research participants were intended to be qualitative in nature. There was a deliberate attempt to share my own educational learning design experience with participants in order to build trust, convey my own discipline authority and the complementary authority of participants, and to elicit meaningful exchanges.

Analysis by case

The final distinguishing feature of a methodological position drawing on Symbolic Interactionism is a typical analysis by 'case'. In this instance, it was not clear at the outset what a 'case' might be, given that it was unclear as to the configurations of participants. It was possible that a 'case' might be an individual or an institution represented by several individuals. There emerged two overlapping types of 'cases', the individual (and their personal representations of their institutional practice) and the collectively annotated SOLE models from the Birmingham workshop. The lack of sustained engagement with any specific case, or individual, negates the possibility of taking a one-case scenario and exploring it in depth (Mills et al., 2010b). Instead, a combination of comparative (Goodrick, 2014) and intrasubject approaches was envisaged (Widdowson, 2011). Whilst there was significant anticipation of multiparticipant engagement in the case of Birmingham workshops and that this would be a feature of further reflection, no aggregated case study analysis was envisaged.

Research Methods, Techniques and Instruments

The next three section respectively describe in detail the methods, techniques and instruments. The following table summarises the process of refining the data capture instruments and their use.

Structure	Definition	My Approach
Research methods	Often referred to as the 'Research Strategy' ensures researcher remains focussed on empirical pursuit.	Leverage the Conceptual Framework. Strategy is 'dialogue' with practitioners.
Research techniques	The individual data collection techniques applied within the method.	Workshops. Object annotations. Workshop dialogue.

		Post-workshop semi-structured questioning of respondents.
Research instrument	The device that is used to collect the data necessary for analysis.	Paper-based SOLE model. In-person dialogue (audio recorded and transcribed). Email semi-structured questionnaire.

Table 21 - Table summarises research methodology, methods, techniques and instruments (including adaptations from (Guba and Lincoln, 2005)

Research Methods

The acknowledgement that methods are derived from the methodological position ensures that the researcher remains focussed on the research questions posed. In my context there are two primary factors impacting on the methods deployed.

Leveraging the Conceptual Framework

Strengthened by the alignment of my intuitive desire to run workshops for data collection purposes I drew focus from the method, or strategy. This suggests that primacy should be given to cultivating or leveraging the real-world context of research represented in the conceptual framework. Given my personal skillsets and the social and professional contexts in which data collection was to occur, the techniques and instruments could be meaningfully identified.

A strategy of professional 'dialogue' with practitioners

I adopted an approach of professional-peer dialogue early on. Given the underlying premise that there may be value in a higher education model in the heritage sector, I represented, in part, higher education's perspective in any 'empathetic interaction'. It would have been counter-productive to have attempted to represent myself as an 'empty vessel' or 'value-free' enquirer (DeWalt and DeWalt, 2010).

Research Techniques

Given the methodology includes 'empathetic interaction' and the research questions lend themselves to in-person 'dialectic interchanges', the research techniques were anticipated to be person to person, social data collection techniques.

Workshops

A focus-group or workshop technique appeared logical very early on in the research. Whilst there is significant literature of focus-group approaches to data collection there is significantly less about workshops (Bloor, 2001; Morgan, 1997; Wilson, 1997). My approach is informed by a personal tradition of running 'World Café' style workshops for information collation, dissemination and ensuring maximum engagement with a subject under discussion.

A World Café style workshop is based around seven key principles (Brown and Isaacs, 2005)

- Setting the context
- Creating a hospitable space
- Exploring questions that matter
- Encouraging everyone's contribution
- Cross-pollinate and connect diverse perspectives
- Listen collectively for patterns, insights and deeper questions
- Harvest and share collective discoveries.

The adoption of this model was challenged by a number of constraints, but it did provide a template for an interesting data capture method.

Object annotations

Following two of the principles articulated for a World Café approach, those of 'exploring questions that matter' and 'encouraging everyone's contribution', it was also decided to use a physical representation of the SOLE model as the catalyst for debate, discussion and the recording of workshop participants contributions. Most annotative studies must be ethnographic in nature because there is most likely to be a need for some contextual clarification. In the context of the annotations around the

SOLE model, the conceptual representation of the model itself represents an intention to restrict, hence 'formalise', the annotations invited. The context of physically annotating a paper-based representation of a conceptual model requires a degree of explanation for participants in order to ensure the context is clearly understood.

The Oxford English Dictionary defines the term 'annotation' as "a note by way of explanation or comment added to a text or diagram" (https://en.oxforddictionaries.com/definition/annotation accessed 12 June 2018). There have been studies on the application of annotations in a range of disciplines as diverse as literary analysis in the context of the humanities (Boot, 2009) and information technology programming (Dybkjær and Minker, 2008). Research by Marshall and Brush, trying to establish the relationship between personal and shared annotations, suggests that personal annotations underwent dramatic changes when they were shared with others (Marshall and Brush, 2004). In a 'live' workshop setting, in which annotations are made onto a permanent surface, one might anticipate either a good deal of discussion before annotations are made or potentially various corrections and secondary annotations (asterisk, arrows and connecting lines) to be the result of this social-constructivist model of engagement.

The study of annotations can be seen as an extension of ethnographic research, as a form of the ethnography of communication. In this research, the data capture methods are focussed primarily on annotations as the outcome of this communication rather than the communication process itself. However, it is conceivable that in a research model in which the interactions of participants were recorded whilst completing the annotations, though video and audio, would provide a complete ethnographic account of the annotating process. This will be explored further in 'Chapter 8: Discussion'.

Workshop dialogue

It was anticipated that the dialogue occurring in each workshop would have three dimensions. Firstly, there was the dialogue between participants themselves. Secondly, there was a dialogue between me as the facilitator and individuals or small groups of participants and thirdly, there was the group dialogue that occurred in the transmission of initial instructions and the final plenary session. Each of these three

modes of dialogue would be dependent on a number of factors; the number of participants, their ability and willingness to share thoughts, ideas and opinions, the physical opportunities and constraints offered by the workshop venue and finally, my ability to facilitate such dialogues effectively. In practice, the dialogue between participants was not captured. The volume of data captured, and the technical challenges of collecting this, in a workshop setting made this impractical. Notes were made, however, of the dialogue between the participants and myself as a means of clarifying and elaborating the contextual dimension of the exercise. It was important that these exchanges did not become distractions from the workshop activities. The audio recorded plenary at the end of the workshop was intended to generate evidence of consensus or disagreement, or individuals' unique perspectives, around the workshop experience based on the prompt questions I asked. Based on my experience as an educational facilitator I anticipated my ability to identify when it was best to approach participants, when to hold back and address the entire cohort, when to sit at a table to provide supportive interactions and when to remain aloof.

Research Instruments and Data

In order to adopt these techniques, in fulfilment of both method and methodology, there are two primary instruments of data collection in this research. Each has its strengths and weaknesses, but all were selected to be both effective and efficient means of capturing rich data. These are:

- Workshop annotations of paper-based model
- Workshop dialogue

These instruments will be discussed in combination with the data, in order to elucidate the effectiveness of the instruments.

I have identified the different types of data collected, the way in which the data have been managed and introduced the use of NVivo as a qualitative software management programme. The management of captured data is critical both from an analytical perspective (Stroh, 2000) but also from an ethical one (Cohen et al., 2000). The process of ensuring that the participants' contributions remain anonymous in the context of NVivo use is defined.

The following table identifies the broad scope and volume of data collected, described in terms of word count and time. Details regarding the style of the evidence and its structure, imperfections and relevance are articulated under subsequent headings.

	Workshop – Birmingham	Workshop – Relevance London
Participants	9	17
Annotation Models	3	12
Annotation Word Count	2705	1056
Audio Transcripts Word Count	5406	2641
Audio Duration	35' 55"	30'31"
Total Participant Time (hh)	45 hours	24 hours

Table 22 - Volume and scope of the data capture

Use of NVivo

NVivo from QSR International (www.qsrinternational.com) was determined to be a suitable tool for managing the data collected early on in the research process. My decision to use this particular piece of software was based primarily on the previous experience of its use, not least on a previous academic project for its textual analysis functionalities (Burden and Atkinson, 2009). I had also previously been invited to co-deliver a training session at the School of Museum Studies in June 2012 entitled 'Overview of Qualitative Research Software'. The session outlined the relative strengths and weakness of Computer Assisted Qualitative Data AnalysiS (CAQDAS) programmes and gave me an opportunity to evaluate a range of alternatives. Preparing for the session, I identified a range of pertinent questions derived from work by Ann Lewins and Christina Silver that should inform the tool selection process. These are shown below Table 23 (Lewins and Silver, 2007).

Focus	Questions	My Current Research

Shape of Data	What kind of data do you want to handle?	Audio transcripts and images
	How much data will you be handling?	Between 12-20 images and up to 2 hours of audio
Personal Capabilities	How steep a learning curve can you cope with?	Very IT literate
	How much analysis time is built into your project?	Rolling analysis with ample time
	What local support do you have?	Access to le.ac.uk resources and training
	Do you have an established or preferred way of working?	Experience of solo coding
Functionalities	How well developed is your theoretical approach?	Sound
	Do you have a defined methodology? (surprises!)	Yes, methodology, methods and instruments clearly defined
	Are you concerned with semantic interpretation?	Potentially
	Do you want specific annotation and note making tools?	Unknown but standard coding tools for certain
	Is there a quantitative dimension to your data set?	Not significant. Basic demographics to be captured
	Is this likely to be phase one of a longer research project?	Unknown

Table 23 - Self-reflective questions when deciding on a CAQDAS programme and my responses

These questions informed my decision process, although perhaps most significant was prior exposure to NVivo and the support available through the University of Leicester. I took advantage of institutional Research Training on NVivo 10, attending both the Basic and Intermediate training provided. At the time of purchase in 2017, NVivo was available for the Mac OSX platform at version 11. I purchased a full student licence for personal use.

NVivo allows a researcher to store in one place all relevant project details. This includes 'cases' or individuals, with however much associated personal data is appropriate, which can be stored alongside audio and image files, transcripts and image annotations. It will be interesting to see how CAQDAS applications respond to increased data protection regulations introduced in April 2016 and enforceable from 25th May 2018 (see Introduction for ethics overview); currently there is no evidence that the software itself supports the enforcement of any regulatory structures. Once stored within the software it becomes possible to manage data (such as transcribing against a stored audio file) and to create agglomerations, or 'sets', of related data points and to create and store repeatable queries against the data. The software also has the advantage of being able to aggregate different data sources from diverse software platforms, allowing both importing and copy and paste functionality (Wickham and Woods, 2005). A potential disadvantage of using NVivo is the lack of interoperability between different CAQDAS programmes which could prove challenging if the researcher discovers a lack of functionality in any given software application and wants to move to another (Evers, 2018). Based on previous exposure to the software and its functionality I determined it was sensible to start using NVivo, at the risk of it proving to be 'a hammer to crack a nut', rather than face finding a large and unwieldy dataset that then needed a management solution. I believe this was the right decision.

One of the most immediate impacts of NVivo on the project was to support the process of anonymisation. A decision was required at the beginning whether to treat the data capture process at the individual or institutional level. It was anticipated that there might be an occasion when more than one representative of the same institution may offer data. Having decided to record data at an individual level, the

process of anonymising those individuals proved straightforward. Within NVivo I merely created a case for each participant using a letter and number combination. The letter denoted the source, based on the colour of the pen used, and the number portion of the title of the photograph of the completed models. Any subsequent data points or queries were then run against these cases. The table below details the numbering convention used.

Source	Letter Source	Number Source	CASE Example(s)
Birmingham Workshop	G = annotations in Green, O= annotations in Orange, etc.	DSCN0725- DSCN0729 (based on image name)	G27, O27
Relevance London Workshop	R (no colour options)	DSCN0653- DSCN0664 (based on image name)	R53, R64

Table 24 - Coding of Sources

One of the challenges I faced in adopting NVivo was filtering the literature around CAQDAS applications. Each application uses different terminology to define essentially identical concepts or processes (Evers, 2018). The use of 'nodes' is the basis of NVivo's potential usefulness to the researcher where nodes can be thought of as hermeneutical units or unique concepts. It is worth noting that the terminology differs between applications with ATLAS.ti, another qualitative research software application, defining its hermeneutical units more broadly to include all reference material that falls beneath a given concept. To confuse the issue further NVivo describe 'cases' as 'case nodes' and 'nodes' as 'theme nodes'. I chose to refer to any individual participant or respondent to be identifiable as a 'case' and any concepts, ideas, thoughts or characteristics being described as a 'node'.

A further complication in terminology worth drawing attention to is the use of the term 'annotation'. I refer consistently to all marks made by participants in workshops to the printed versions of the SOLE model as 'annotations'. However, in the humanities, annotation frequently refers to all information about data sources

(objects) that serve to classify, code, comment or indicate linkages between them (Corti and Gregory, 2011). In CAQDAS applications the tools to undertake such annotating are called: codes, comments, memos and hyperlinks. In the case of NVivo, 'annotation' is also used for notes written by the researcher about the project or specific objects within the project. The only significant difference in NVivo between Memos and Annotations is that the latter cannot be coded.

I will now articulate the volume and scope of the data collected from various sources using the different instruments. Data will be reported using the case identification process just outlined. It will identify the different types of data collected and detail the challenges and opportunities that each form of data presented. In subsequent chapters, the data will be analysed and discussed.

Workshop annotations of paper-based model

A number of different approaches for the running of workshops concluded that an extended version of a World Café was optimal. World Café workshops are traditionally used to capture 'brainstorming' responses to defined questions. These are focussed questions that are designed to elicit equally focussed or 'real-world' responses. Like an old-style European café where it was traditional for there to be a paper tablecloth which both patrons and staff could scribble on, the normal mode of operation of such a workshop is to provide large pieces of paper and multi-coloured pens and to either print the central questions onto the piece of paper or have participants write it down.

In previous practice, I have adopted variations on the timing allowed for individual groups and the number of participants working around any given table. These vary from three to six people. It is important that people are free to stand and walk between tables. Indeed, a significant part of my previous experience has been encouraging participants to move around the tables to see what other groups have contributed. In a 'classic' implementation of the World Café, a single individual remains behind to interpret that table's responses to delegates from other tables as they circulate. This has always struck me as somewhat unfair for the individual 'left behind' and I prefer to spend time briefing tables to annotate clearly and provide structure in order to allow everyone to circulate. This circulation and cross-pollination

of activities is an important part of the collective learning process and is best served by allowing defined time for each table to be explored.

An adaptation of this approach struck me as prudent in order to evaluate the veracity and relevance of the SOLE Model to the heritage context. The risk of presenting a de-contextualised representation of the model (as illustrated in Figure 7 above), and allowing participants to annotate around it freely, risked an invitation for open-ended interpretive dialogue. Faced with blank spaces it was anticipated that participants would feel less cognitively structured. Given the focus of the research questions, it was determined that each of these questions had a temporal dimension, although both might be asked in terms of what opportunities exist and what individuals aspire to provide.

1. How do heritage institutions interpret the needs of self-directed adult learners?
2. What support do self-direct adult learners need and are these being met by heritage sites?

As a consequence, I decided to design the 'questions' to be represented in visual form through the SOLE Model itself in the form of a redesigned representation of the model at the centre of two concentric circles. The 'original' model was immediately encircled by a zone of 'current practice', followed by an outer circle of 'future practice'

After significant deliberation, I concluded that rather than provide extensive semantic explanation of the terminology used in the original model I would simply provide a text description down one side of the paper. This had the advantage for those familiar with educational terminology were able to begin their annotations immediately, making good use of valuable time. It did risk the disadvantage of participants not understanding terminology and possibly not seeking clarification. At the bottom, I produced four boxes in order to allow participants to state their name and email and designate their chosen colour, with verbal explanation from me that they should use the same colour consistently so that their responses could be coded to them individually. The result of this design is illustrated in Figure 13.

The diagram text includes:

INFORM:
The materials provided, usually in advance, to support domain knowledge acquisition, information usually in the form of written descriptions

CONNECT:
Synchronous (real-time) engagement between a Guide (educator, curator, docent) in person or potentially as a virtual guide.

ENGAGE:
Asynchronous engagement between a Guide (educator, curator, docent) either in person or in written guides, audio guides, maps, etc.

COLLABORATE:
The direct engagement with fellow visitor-learners in real-time or asynchronously for a shared learning purpose.

CONTEXTUALISE:
The broader social (and/or professional) context in which the visitor-learner lives. This includes, amongst others, their location and local, the ethnicity, language, religion, gender identity, sexuality and any discernible social classifications.

PERSONALISE:
The individual life context which the visitor-learner occupies, a source of real-world activity that can be identified as connections to experience.

REFLECT:
In context of tactile learning, defined as a reflection-on-action to reflection-in action process through the visitor-learner engagement. In non-tactile learning contexts, defined in the vernacular, as 'pauses for thought' and provocations to reflect.

ASSESS:
Any form of assessment, diagnostic, formative, summative or synoptic. Assessment is ordinarily expressed in terms of its relationship to defined learning objectives

FEEDBACK:
Supportive guidance on quality and level of evidence (comprehension and/or appreciation) being demonstrated in response to definable learning objectives

Name: / Institution: / Colour: (×4)

SOLE Model in Heritage Evaluation   © Simon Paul Atkinson 2017

Figure 13 - A1 Paper based SOLE Model for annotation

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After some experimentation of having different sizes printed from A3 (297 x 420mm), A2 (420 x 594mm) and A1 (594 x 841mm), I opted for A1 as being the optimal size, large enough for three or four people to be able to annotate legibly but small enough to fit onto a normal sized table surface (given that at this point a venue was yet to be identified). The paper weight was selected at 230gsm in order to ensure durability and to avoid unnecessary tearing and the finish was 'Matte' in order to allow for pen-based annotations. I then experimented with a variety of different pens to ensure that annotations would be both durable and legible. After exploring a range of fine-thin tipped pens and coloured ball point pens, I adopted 'Steadtler Lumocolor Permanent 0.6mm (F)' multicolour pens. All colours proved legible although a preference was stated to participants that they should select a darker colour where possible.

During the planning for the initial 'open invitation' workshop scheduled for September 2017 an opportunity arose to contribute to the workshop programme of the Relevance 2017 conference to be held at the Royal Historical Palaces, the Tower of London, between October 14th and 17th 2017 (Historic Royal Palaces, 2017). The joint CECA (Committee for Education and Cultural Action) and DEMIST (Demeures historiques-musées) conference was orientated around the question of 'Are we trying hard enough?' (to be relevant to various communities). This proved a perfect opportunity to both validate the initial analysis received from the Birmingham workshop and to explore international perspectives.

For Relevance 2017, I was allocated a Sunday morning timeslot and was not hopeful that I would have a decent number of participants. I was optimistic that those that did attend would be of a highly relevant constituency. This belief was based on a review of the online app which detailed all conference participants' institutions and countries of origin. I was confident that there was likely to be a broad spectrum of nationalities and institutional contexts represented. This multi-lingual context would challenge the comprehensibility of the SOLE model in a heritage education context.

There had been some confusion as to the venue I had been allocated right up until the final morning of the day of the workshop. To take account of the lack of certainty as to the room layout, I opted to amend the format of the data collection instrument. I developed the SOLE Model for annotation as an A3 reproduction (297 x 420 mm or

11.7 x 16.5 in) and asked each individual to annotate their own version, whilst encouraging dialogue between participants sitting beside them. This meant that I had two different formats of instrument and two distinct collection contexts. The A3 version of the data collection instrument is illustrated in Figure 14, demonstrating that the only difference, apart from the scale, was a single respondent box.

INFORM:
The materials provided, usually in advance, to support domain knowledge acquisition, information usually in the form of written descriptions

CONNECT:
Synchronous (real-time) engagement between a Guide (educator, curator, docent) in person or potentially as a virtual guide.

ENGAGE:
Asynchronous engagement between a Guide (educator, curator, docent) either in person or in written guides, audio guides, maps, etc.

COLLABORATE:
The direct engagement with fellow visitor-learners in real-time or asynchronously for a shared learning purpose.

CONTEXTUALISE:
The broader social (and/or professional) context in which the visitor-learner lives. This includes, amongst others, their location and local, the ethnicity, language, religion, gender identity, sexuality and any discernible social classifications.

PERSONALISE:
The individual life context which the visitor-learner occupies, a source of real-world activity that can be identified as connections to experience.

REFLECT:
In context of tactile learning, defined as a reflection-on-action to reflection-in action process through the visitor-learner engagement. In non-tactile learning contexts, defined in the vernacular, as 'pauses for thought' and provocations to reflect.

ASSESS:
Any form of assessment, diagnostic, formative, summative or synoptic. Assessment is ordinarily expressed in terms of its relationship to defined learning objectives

FEEDBACK:
Supportive guidance on quality and level of evidence (comprehension and/or appreciation) being demonstrated in response to definable learning objectives

Name:
Institution:
Email:
Remember to provide your mail in order for a scanned version of your model to be returned to you.

SOLE Model in Heritage Evaluation   © Simon Paul Atkinson 2017

Figure 14 - A3 version of the SOLE Model for annotation

A further distinction between the Birmingham World Café workshop approach and the more conventional Relevance workshop was in the presentation of accompanying 'Information Sheet for Participants' and the consent forms. In the case of the Birmingham-A3 workshop, individual A4 versions of both were reproduced separately which asked participants to complete the consent form and hand it in at the end of the workshop. In the case of the Relevance 2017 workshop a version of both the information sheet and the consent form were printed on the reverse of the A3 model to be annotated. I had some concerns that individuals may want to keep a version of the model and therefore not leave their completed annotated version and the consent form. So, for the Relevance 2017 participants, a second A3 folded flyer of the SOLE model was provided with the information sheet reproduced, alongside a 'raw' version of the SOLE Model and a reproduction of a poster explaining the SOLE model in a Higher Education context. The Birmingham workshop contained individual A4 representations of the same content. The 'packs' provided were therefore distinct for each audience as seen in Table 25.

A summary of the distinctions between the two data capture approaches is as follows:

Element	Birmingham	Relevance 2017
Timing	5 hours	90 minutes
Format	A1	A3
Style of response	Collaborative	Individual
Workshop Mode	World Café	Standard
Consent Form	Separate A4 sheet (2 copies provided)	Integrated into annotated A3 (only those annotated models left behind by those who completed a consent form were collected)
Information Sheet for Participants	Separate A4 sheet	

Reproduction of the SOLE Model	Separate A4 in full colour (with further explanation of SOLE elements on reverse)	Incorporated into Separate A3 'take away' flyer folded as A4 in full colour.
SOLE Model HE Version flyer	Separate A4 sheet in full colour	
Participants	9	17
Models Completed	3	12

Table 25 - Differences between two workshops

Recruitment was done differently for both workshops. For the full-day Birmingham workshop held in September 2017, announcements were made through two JISCmail discussion fora. These were the GEM List (2001 Subscribers as at August 2017) which had three posts with deliberately retitled subject headers;

22.07.2017:   Evaluating Heritage Education (Free Workshop)

31.07.2017:   Evaluating Adult Education in our Institutions (Free Workshop)

21.08.2017:   Invitation to Evaluating and Planning Adult Education (Free Workshop)

And the HERITAGE List (over 500 subscribers as at August 2017) which received four postings;

22.07.2017:   Evaluating Heritage Education (Workshop)

31.07.2017:   Evaluating Adult Education in Our Institutions (Free Workshop)

21.08.2017:   Invitation to Evaluating and Planning Adult Education (Free Workshop)

01.09.2017:   Few Remain Places – Birmingham 06/09 – Evaluating Education

The logic of changing the subject titles was to attract a wider range of potential participants whilst remaining faithful to the nature of the workshop itself. The fourth post was only sent to the HERITAGE list on the grounds that its membership appeared to be predominantly UK based. The posting directed individuals to register for the Birmingham workshop at a dedicated EventBrite page designed for the event (https://heritage-education-workshop.eventbrite.co.uk). This website allows for the

free postings of events that collect basic enrolment data and allow for the management of such enrolments.

Recruitment for the Relevance 2017 Conference (90 minutes) workshop was 'open'. This meant that I had no visibility of who was enquiring or registering. An abstract was presented on the conference website and all conference attendees were invited to attend with no pre-conditions.

Enrolment for both workshops also differed in that the Eventbrite registration for the Birmingham workshop required individuals to provide basic personal contact details and an email contact by default. Participation for the Relevance workshop required no formal enrolment provided to me as the host. As a result, I was faced with an unknown number of individuals and no notion of who would choose to participate. For this reason alone, the notion of individual annotated models at the Relevance workshop was more sensible rather than possibly blocking the engagement of others through a 'malformed' grouping. Table 25 above summarises the number of participants.

Workshop dialogue

The primary research instrument to facilitate the dialogues that were engaged in throughout the workshops was my voice. My ability to articulate and converse with individuals and groups, to use whatever interpersonal skills I had developed over 25 years of teaching and facilitating such events, became critical. I had loosely scripted my introductory notes for both workshops but had left open my closing remarks to ensure the workshop dialogue would flow from the participants' responses. My open comments were used to both ensure that individuals felt comfortable, welcomed, and that their participation was of both personal value to them as well as, through my research, potentially the wider heritage field. My opening comments were forecast to provide;

- A welcome and an outline of timing for the day
- Personal introductions
- (In the Birmingham workshop time allowed for nine individuals to introduce themselves. Time restrictions in the Relevance workshop did not allow for the 17 participants to do so)

- A personal overview of my own role and work history
- Statement of my personal commitment to the research
- An overview of the SOLE model's development in Higher Education
- An overview of the activity planned during the workshop
- An initial explanation of the research consent forms that would be requested

Both workshops had the support of PowerPoint presentations that included my personal contact details and clear visualisations of the SOLE model in its 'original' higher education form and a representation of the A1 or A3 version presented to participants. In both cases a 'mock-ed up' version of the SOLE model, already annotated, was displayed to demonstrate where annotations were intended to appear.

The possibility of video recording each individual's interactions with the model was considered, as was the possibility of audio recording the dialogue on each table or between each group of individuals. This would capture the 'real-time' sequencing of interactions, reveal the finer points of interpersonal behaviours and to provide the ability to synchronise model completion with a time-stamped record (Jewitt, 2003). In addition, it was intended that a recording of the workshop dialogue, or plenary, that would end each workshop would be done. Based on previous experiences of such research during the DiAL-e project (Burden and Atkinson, 2009), it was determined that the quality of recordings done during table discussions was likely to be largely incomprehensible and that video recordings were both complicated, relatively expensive and likely to make individuals uncomfortable and less likely to express themselves freely (Goldman et al., 2014; Heath et al., 2010). The lack of video surveillance during the plenary discussion meant that it was impracticable to code specific auditory responses to individual cases. This was justified in providing further reassurance to participants that their contributions would remain anonymous (Wiles et al., 2008). Whilst there is evidence that one-to-one professional interviews, following a prescribed script, and a clear introduction to the interview's purpose, may not suffer any loss of data through personal annotations rather than audio

transcription (Clausen, 2012), these were not the circumstances under which my data was to be elicited.

Instead it was decided that the end-of-workshop plenary discussion would be audio recorded. This was consented to by participants in responses to the consent form and was confirmed verbally both in the introductory comments and before the recording was made. To achieve this, I installed the full free versions of AudioNote (http://luminantsoftware.com/) onto both my personal iPhone4 and iPad2. I also purchased the licenced version for Mac OSX (version 4.5.0) to be able to access files and manipulate them accordingly and installed this on both my MacBook and personal iMac. An external Samson Meteor microphone was also purchased and used to capture audio dialogue. The iPad and iPhone were positioned at various locations around both workshop spaces, capturing multiple versions of the dialogue. These multiple recordings were subsequently imported into Audacity (https://www.audacityteam.org/), free audio editing software, and aligned to provide an audible recording of the group's deliberations; they were then transcribed and coded using NVivo (version 11 for Mac).

Data: Workshop – Birmingham

Participants and Responses

A total of ten individuals registered for the first workshop advertised through the JISCmail mailing lists (GEM and HERITAGE) between July and September 2017 using a dedicated Eventbrite webpage. One enrolled individual emailed me with two days' notice to say they would not attend. One participant enrolled but I emailed to ask them not to attend given that they self-identified themselves as a 'consultant' and I sought a single institutional perspective. I configured the room initially for an anticipated eight participants and had decided to have two groups of four, in line with a conventional implementation of the World Café model (Brown and Isaacs, 2005). However, the self-identified consultant arrived and after conferring and making sure that the individual was in a position to represent a unique heritage site, I was forced to restructure the event for three tables of three. Two workshop attendees were employed by the same local authority covering a range of heritage sites. Except for

those representing National Trust Properties, all other participants worked for, or were directly engaged in, multi-site local authority managed heritage sites. In some cases, this local management was in the form of a charitable trust, in others under direct local political control.

Immediately before the workshop began, I assigned three individuals to each of three tables with a single large A1 version of the SOLE model ready for annotation. This allocation was based on ensuring equal numbers per model, in this case, three, and for the avoidance of individuals from either the same institution or geographic area working together. The workshop data collection was focussed on the annotations of the A1 models provided with each participant using a unique colour pen consistently. After the workshop, these A1 versions were photographed and assigned a unique number, based on the file name, producing three image numbers (see Figures 17, 18, 19). These images were imported into NVivo.

Prior to the workshop, I produced a plastic A4 folder for each participant with their name printed onto a label displayed at the front, with blank folders available for unanticipated eventualities (such as an unexpected attendee). These were all identical in contents, containing information for participants (see Appendix) and consent forms (see Appendix 3), as well as workshop timetable and an A4 version of the SOLE Model with notes. This meant that I could assign seating by directing people to sit where their name appeared. Verbal permission was sought, and given, for me to take photographs for reference during the workshop while participants were undertaking the activities, and these are not reproduced to preserve the anonymity of participants. Likewise, there is no indication as to the identity of participants on the seating plan Figure 15 although I have chosen to identify the location of each finished annotated A1 model. The hosts, commercial space providers 'thestudio' (http://studiovenues.co.uk/), had kindly removed all superfluous furniture from the room although I had retained table D in case of unregistered arrivals. Each table had four chairs. I left the fourth chair in place given my potential need to join any given table and to sit, rather than loom over participants. My presence is indicated as the figure indicated '1'. The room was naturally lit through a wall of windows. Given my very limited intended use of

PowerPoint, the focus was on a comfortable working environment for participants to annotate their models.
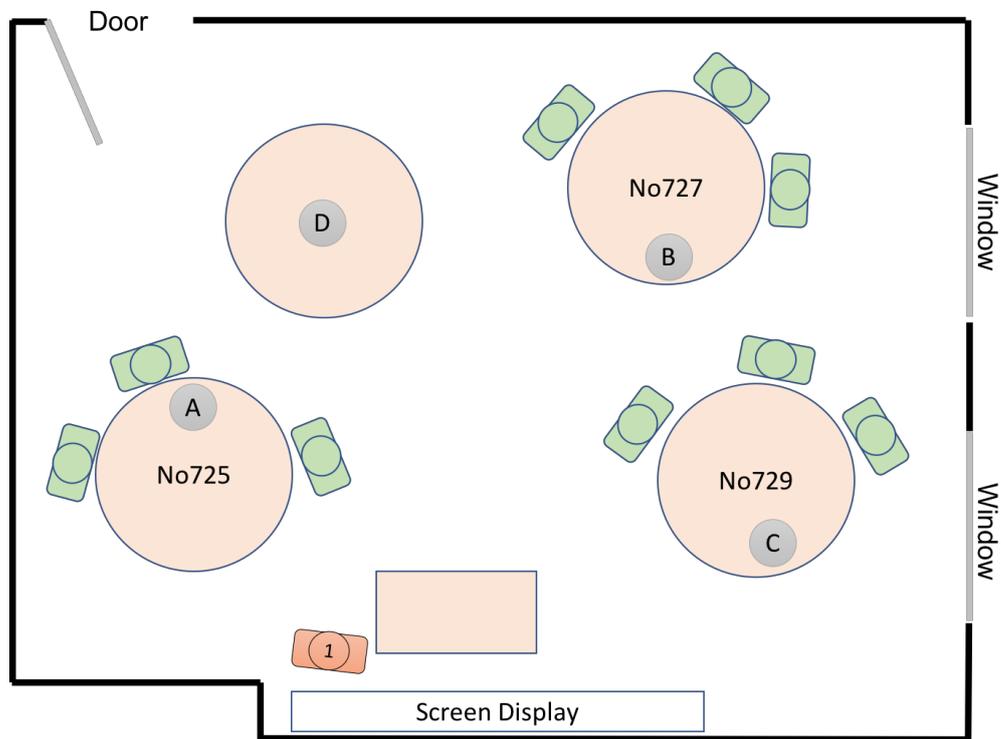
Figure 15 - Workshop Layout Birmingham

Following the workshop, each participant was assigned a 'case' identifier, ensuring that their anonymity would be preserved in any subsequent analysis or reporting of data (see Table 26). The individual's case identifier was a product of the colour pen they had chosen to use. Having the unique identifier related to the colour made subsequent coding significantly more straightforward.

A decision was made early on in the workshop planning process not to collect a significant amount of demographic data for participants. This was because the views captured were intended to be from an institutional perspective and participants' anonymity was to be assured (Bounia, 2014). The less demographic data captured, the less vulnerable individuals would feel. So, no details of ethnicity, age or educational profiles were captured for workshop participants. Participants had already registered online and provided details of their institutions.

This resulted in a case set that appears as follows;

Identifier	Image	Colour	Institution
P25	725	Purple	National Trust Properties
R25	725	Red	Local Authority Museum
B25	725	Black	Local Authority Museum
G27	727	Green	National Trust Properties
O27	727	Orange	Local Authority Museum
P27	727	Purple	Independent Museums
P29	729	Purple	Local Authority Museum
O29	729	Orange	Local Authority Museum
G29	729	Green	Local Authority Museum

Table 26 - Case Identifiers, Image, Colour and Institutional Profiles

NVivo Treatment

NVivo was used both to manage and code the data from two distinct sources, the photographs of the final annotated A1 representations of the SOLE Model and the audio file recording of the closing plenary. The first use of the data management software occurred immediately following the first workshop.

In defining sources, I created a folder entitled 'Models' and a second called 'Audio Transcripts'. I imported the three high-quality photographs, one for each annotated A1 model, into the 'Models' folder and double checked the import quality by activating each in turn. The highest possible quality of the image was achieved by importing the original JPEG formatted image without any further data degradation. This meant that images were 5151 x 3864 pixels and therefore large, at between 29.2 and 29.9 MB. In retrospect, this large file size was unnecessary given that the coding was manual, and the image was not computer readable. No readily available technology would have enabled text conversion from handwritten to type text. At the coding stage, there was often the need to load an external version of the reference image to be able to orientate the image through 360 degrees to improve legibility.

A similar process was adopted for the audio file. The original WAV format recording was opened in Audacity, and some volume enhancement activity was performed. Some experimentations around 'noise reduction' were inconclusive and so the files were left largely untreated. Given that I had three different audio recordings, each with a different quality I sought to combine them into a single audio track. In practice, this proved less than ideal. There was too much white noise and incidental noise on all three recordings, capturing as they had the 'local' noise of a given table. Combining the three recordings amplified, rather than nullified, the incidental noise. I opted instead to select the clearest of the tracks to import into NVivo but kept the alternatives for future clarification and cross-checking. Several minutes at both the beginning and end of the recording, containing general noise and indecipherable background dialogue, were deleted using Audacity. The selected audio file was exported from Audacity as an MP3 file at 58.8MB and 35'54" in duration. This was not imported into NVivo but instead remained an external source allowing it to be annotated, transcribed and coded without making the NVivo files unnecessarily large.

When dealing with the coding of individual's recorded annotations on any given image, I predetermined that I would want to be able to recover comments made against any of the nine individual elements of the SOLE model and needed a way to distinguish between current activity and future ambitions. This meant an initial list of 11 nodes was generated. Subsequently a twelfth was added, that of 'Str-Annote' to code 'structural annotations' such as arrows connecting comments or extraneous annotations outside of the model itself. In addition to the individuals with their unique 'case identifiers' I also created a unique case identifier for myself as 'SPA'. Combining these identifiers with any combination of 'nodes' allowed me to code both image annotations and audio transcript.
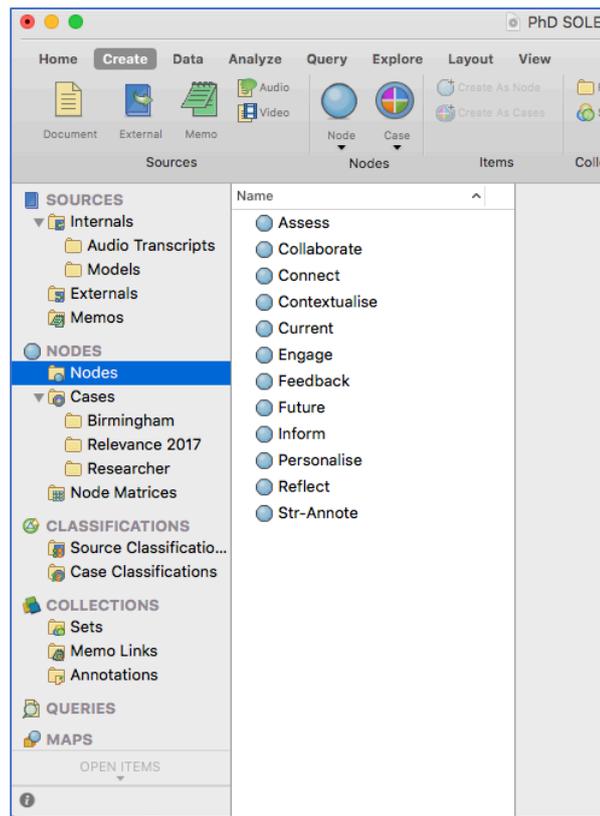
Figure 16 - Screen capture of NVivo showing initial coding Nodes

Annotations

The total contact time with respondents at the Birmingham workshop amounted to 45 hours. The formal duration of the workshop was 5 hours, and there were 9 active participants. The format of the workshop allowed for full engagement between all participants on their assigned table, but also with the whole cohort. No explicit instruction was given that individuals should not circulate although in practice no one did until invited explicitly to do so. I also interacted with them individually and collectively during 'social-time' such as the breaks and lunchtime. The key focus of data capture was twofold: the handwritten annotations on the A1 models and the audio-recorded plenary session.

In addition to these two data sets, I also made a number of impromptu notes to remind myself of questions to ask during the plenary or to document degrees of interactivity between participants. I also returned to the 'front desk' and made notes following individual interactions between myself and individuals and tables. These were not a formal log but served purely as an aide memoir.

The three annotated A1 models are shared here in full. Following these photographs is an example of initial coded annotations in NVivo from a single participant.

Figure 17 - A1 Annotated Model No725
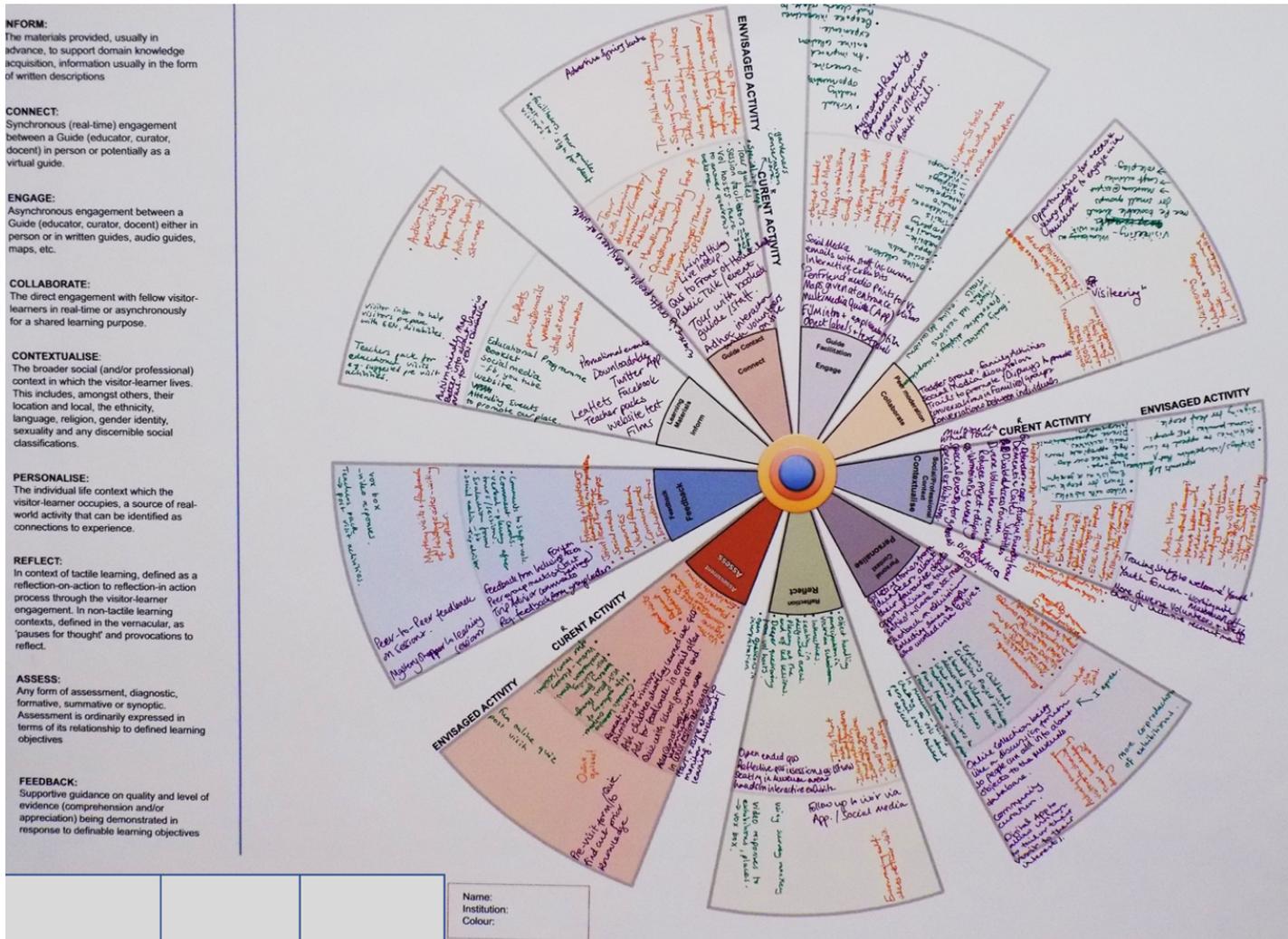
Figure 18 - A1 Annotated Model No727
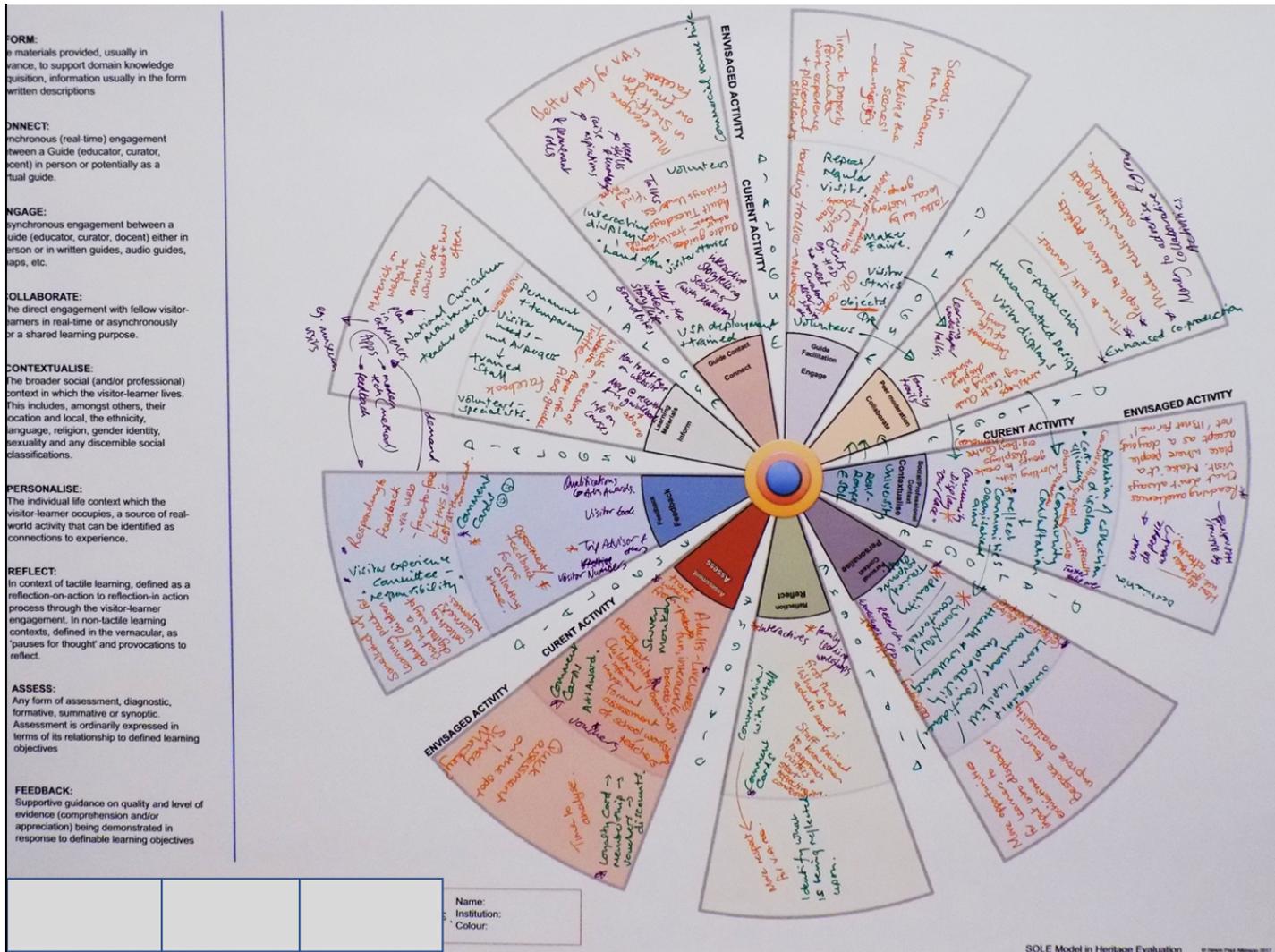
Figure 19 - A1 Annotated Model No729

Each of these annotated models were then systematically coded using NVivo based on the nodes outlined in Figure 16 above. This produced a profile for each participant as illustrated in Figure 20 below of case P27 (Purple/No727).
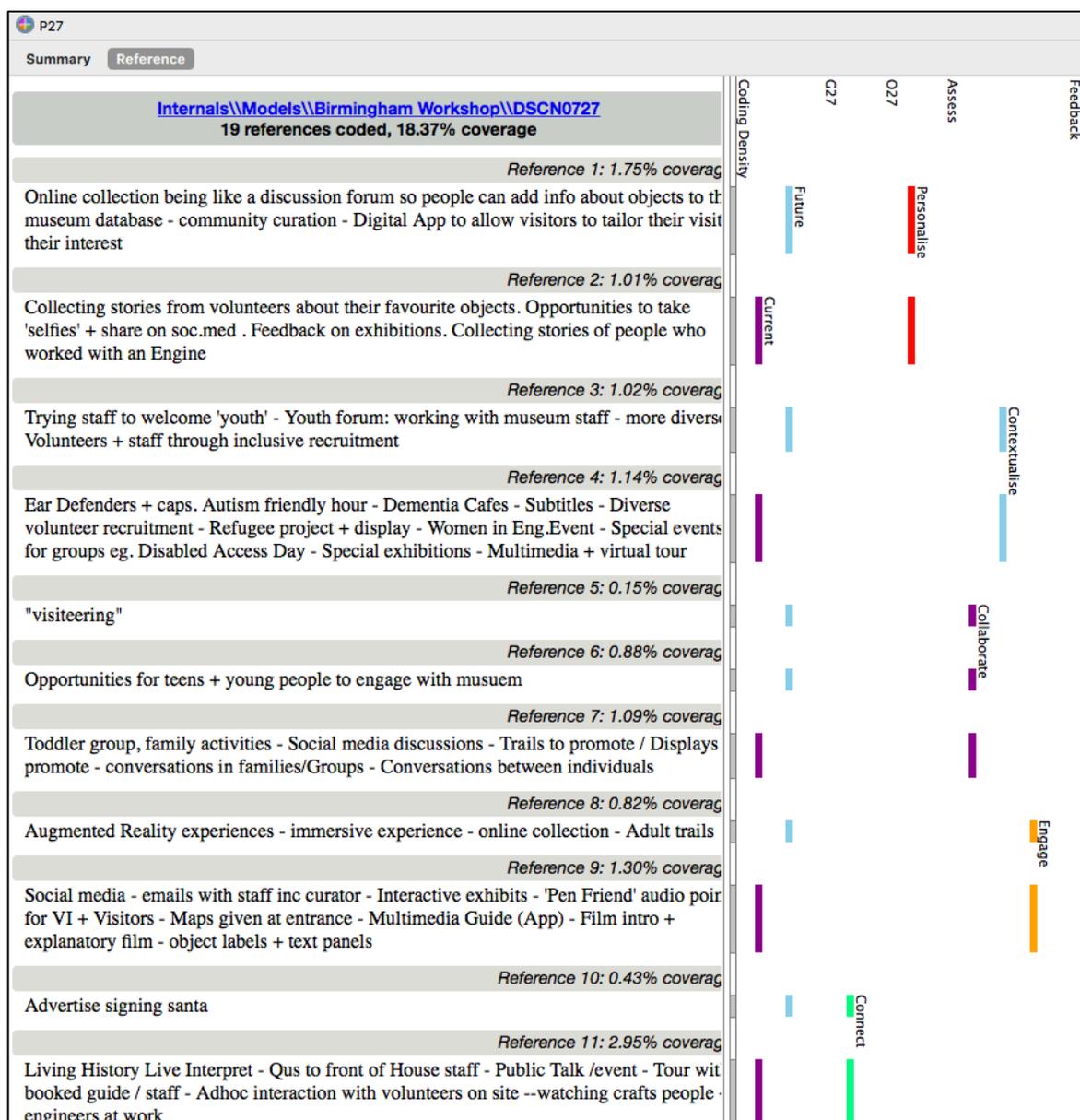
Figure 20 - Example of Coded Annotations for One Participant (P27)

All 9 participants produced similar profiles although the volume of annotations did vary between individuals and between annotated models. This 'word count' profile is detailed in Table 27

Model Number	Participant Case (Word Count)			Totals Word Count
No725	B25 (304)	P25 (304)	R25 (391)	999
No727	G27 (362)	O27 (368)	P27 (406)	1136
No729	G29 (144)	O29 (291)	P29 (135)	570

Table 27 - Word Count Profiles for Birmingham Annotations

By using audio recording, rather than video, I could not identify specific individuals during transcription. Whilst it may have been possible for me to recollect specific regional accents, and to identify the single male voice in the cohort, I opted instead to assure participants that the audio transcript remained anonymous by differentiated only between participants comments and my supportive commentary and narrative guidance. The transcription tool in NVivo invited the audio to be broken down by 'speaker', so I opted to use my case identifier. My comments were coded as 'SPA' for when I was speaking but to note by way of an initial and numerical code for each intervention on behalf of a participant, B01, B02 and so on.

A simple word count of the transcript showed that a total of 2509 words were spoken during 35 distinct interactions in the plenary session, accounting for 38.5% of the transcription. The remaining input, the majority at 61.5%, was my commentary and working to elicit responses.

Discussion

It became apparent that the transcription function on NVivo worked best when speakers could be equated to cases allowing coding to be, to an extent, automated. A non-named speaker, or anonymised case, presented a different coding challenge. In treating the data, some potential thematic nodes became apparent. However, I decided it was important not to confound the management of the data with its analysis and so I resisted the temptation to introduce other coding structures until both workshops were completed and the initial data was entered, stored, and managed. These subsequent coding steps will be elaborated in the analysis chapters that follow.

Data: Workshop - Relevance London

Participants and Responses

The Relevance 2017 conference provided an opportunity to answer my research questions by testing the SOLE Model's effectiveness in a different context and under different conditions. As described above, due to the uncertainty of the venue, I prepared A3 models for the participants to annotate. The room contained a number of small tables assembled into 'pods'. The chairs, armless, were also suitable for adults and all furniture was movable. There were six chairs around each table. I decided not to rearrange the furniture and simply encouraged people to sit as evenly dispersed across the room as possible. To do this, I distributed both the printed A3 models and the A3 (folded to A4) 'information leaflet' across all of the tables. Thirty minutes before the start of the workshop I set-up my explanatory PowerPoint. I also had black biros available should they be needed.

As the room begun to fill there was a natural, predictable, pattern of room-fill, starting from the back of the room and with everyone sitting initially at the sides of tables

away from the perceived front of the room where a screen was displaying the home slide of the PowerPoint. The workshop began with a 10-minute introduction from me explaining the doctoral context of the research workshop. I indicated that the models that they were going to annotate had both the information for participants and consent forms on the reverse. I stated at the beginning that consent would be sought at the end of the workshop and that they should not leave any annotated models behind without consent and where consent was given that they should leave their annotated model where they sat. As with the Birmingham workshop, approximately 45 minutes into the 90-minute workshop, verbal permission was sought and given, to allow me to photograph the room for reference. These are not reproduced to preserve the anonymity of participants. Likewise, there is no indication as to the identity of participants on the seating plan.
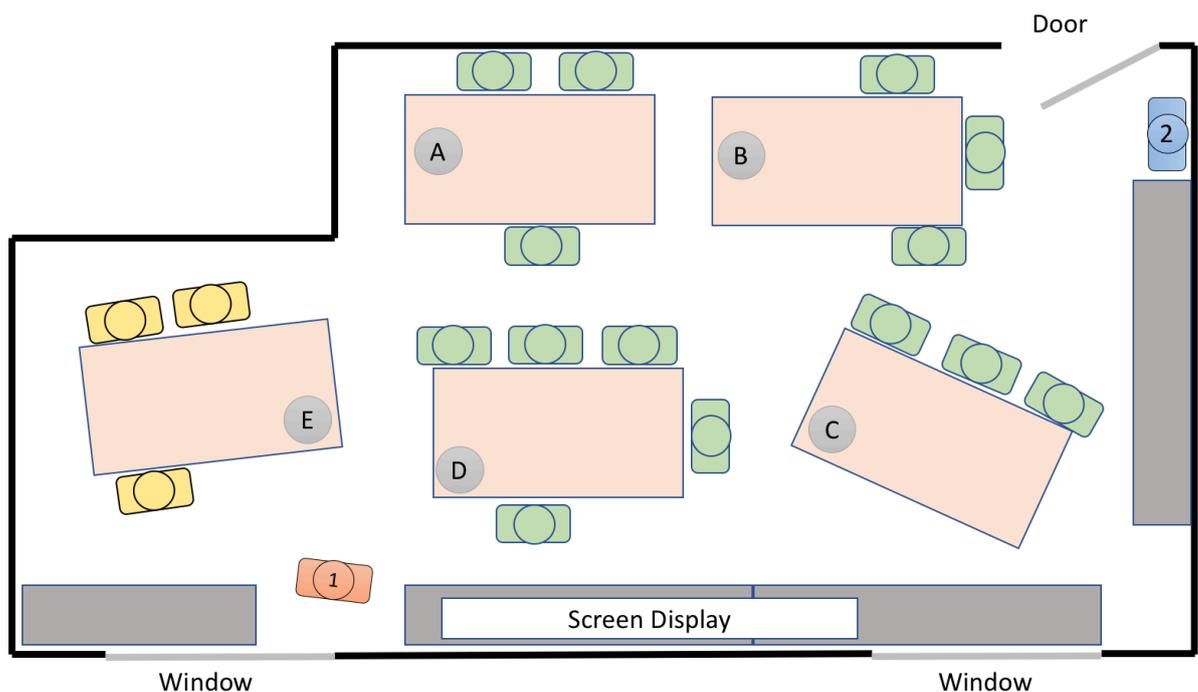
Figure 22 - Workshop Layout Relevance 2017

Three late arrivals (some 20 minutes after the workshop had started) were seated furthest away from the door and one with their back to the screen (table marked 'E' in Figure 22). These individuals had missed my opening remarks and introductory PowerPoint, and I was required to spend ten minutes explaining the purpose of the research and the nature of the activity separately to those three individuals. In addition to the 17 participants, there were two other individuals in the room, myself

marked with '1' and a volunteer, working for the conference organisers who was blogging throughout the session, marked '2'.

Of the 17 participants, five chose not to leave their competed models behind with a completed, signed, ethics declaration. A note was made immediately following the workshop of where individuals who did not submit annotated models were seated. These non-submissions were distributed across various tables, although three were on a single table. The reasons for non-submission were provided verbally in three out of five cases. These were:

- The individual's role is primarily senior management, and therefore they deemed their comments not to be applicable;
- The annotations were illegible (despite my suggestion that this was for me to determine);
- The annotations were not written in English (despite my willingness to accept languages other than English).

Indeed, two out of the 12 submissions were in languages other than English; one in French and the other in a mixture of English and Dutch. These were transcribed into NVivo 'as was', and later translated.

The country of origin and the nature of the institution of the participants are only available for those who submitted annotated A3 SOLE Model representations. The details that were requested on the face of the annotated model were the individual's full name, institution and institutional email. The consent form of the reverse required their name, email, signature and date. These were intended to be provided twice, once on the front of the annotated A3 model and again on the reverse as part of the consent form. An explicit verbal request was made at the end of the workshop, during the time allocated to review the notes for participants (see Appendix 2) and the consent form (see Appendix 4), that the email address provided should be an institutional one to allow me to determine both the country and institution.

Case	Nature of Institution	Country
R53	National Specialist Museum	Cote D'Ivoire

R54	National Specialist Museum	Lebanon
R55	Historic House	UK
R56	Historic House	UK
R57	Regional Museum	UK
R58	National Specialist Museum	Belgium
R59	Regional Museum	Netherlands
R60	National Specialist Museum	Japan
R61	National Specialist Museum	Hungary
R62	National Specialist Museum	Portugal
R63	Historic House	USA
R64	Art Gallery	Brazil

Table 28 - Profile of Institutions and Countries for which A3 Models were submitted

Each completed A3 representation was photographed within 6 hours of the end of the workshop in my hotel room and again to a higher resolution after the conference once at home where the light was more easily controlled.

NVivo Treatment

NVivo was again used to manage and code the data from two sources, the 12 photographs of the A3 representations of the SOLE Model submitted and the audio recording of the closing plenary. However, its use differs from that of the Birmingham workshop.

At the point of adding the reference photographs for coding to NVivo I decided to create a second folder and divided the contents of the previously created 'Models' folder into one of two sub-folders. These were created as 'Relevance London Workshop', and the earlier loaded images from the Birmingham workshop were moved into a new sub-folder entitled 'Birmingham Workshop'. The audio transcript was uploaded into the same folder as the Birmingham audio recording called 'Audio Transcripts'. I repeated the process of importing the 12 high quality photographs, once

again at the highest possible resolution. As already stated, in retrospect this high resolution proved unnecessary given that at the coding stage there was the need to review a reference image outside of NVivo to assist the rotation of the image to make it more legible.

Once again, the audio file was treated from the original WAV format recording to a refined MP3 file using Audacity. Other than some volume enhancement and some trimming of white noise at the beginning and end of the recording the file was untreated. Given the lack of success in the strategy of attempting to merge three overlapping recordings from the Birmingham workshop, I sought only to record a single track using AudioNote on my MacBook and an external Samsung Meteor Mic. To be cautious, however, I still made a backup recording on my iPhone in case the 'master' file was corrupted or lost. The selected audio file was exported from Audacity as an MP3 file at 29.3MB and 30'31" in duration. This file was once again kept externally from NVivo given its significant size.

Annotations

The total contact time with all 17 participants through the 90-minute workshop amounted to 25.5 hours, with 12 submitting completed A3 models. The format of the workshop allowed for as much exchange between individuals as they chose although at no point was anyone encouraged to circulate between tables or participants and no one stood up and circulated during the workshop. The plenary was open to the entire cohort. I interacted with individuals, being called to each table at least twice during the activity phase of the workshop. I had also spent ten minutes explaining the research and the activity to those who arrived late. My key focus of data capture remained twofold: the handwritten annotations on the A3 models and the audio-recorded plenary session. In this second workshop, I was interested to reveal the depth and breadth of the responses given the individual nature of the submissions and the constrained timescale for the workshop. I was also interested in identifying how well the model would 'translate' not just between contexts of deployment (higher education and heritage) but also between languages. As with the Birmingham workshop, I also made a number of impromptu notes to myself. This included notes of where individuals were seated when they contributed to the plenary discussion in

order to eliminate those who chose not to leave a consented model behind. Interestingly, and worthy of further reflection, is the fact that participants who chose not to consent to their data being used, on the grounds that their English language was poor, did not make any verbal contributions to the plenary discussion.

As previously illustrated in Table 24, case identifiers were created based on the event, 'R', and the image number. There was no need to reference changing colours of annotations given that each annotated model would display each participant's own identifying data. I opted to transcribe the original models regardless of the language used. This means that there are two models containing significant amounts of French and Dutch although the preliminary data management coding did not require them to be translated. The structure of the SOLE Model contains both a 'current activity' and 'future activity' 'zone', and despite explicit instructions that participants should focus on their current provision, given the time allowed for the workshop at 90 minutes, two individuals provided some 'future' annotations (R59, R61). One participant (R63) also chose to use the 'future' zone to annotate their institution's 'current' activity but realised their error and made an additional annotation to point this out.

The coding of individual A3 models followed a similar pattern to the Birmingham workshop (see Figure 16), as did the structure of the transcripts (see Figure 20). Where the two workshops varied significantly was in the volume of annotations, and this is subject to further analysis.

Participant Case (Word Count)		
R53 (44)	R54 (61)	R55 (108)
R56 (91)	R57 (44)	R58 (69)
R59 (58)	R60 (125)	R61 (144)
R62 (74)	R63 (186)	R64 (52)

Table 29 - Word Count for A3 Model Submitters

The following figure illustrates the range of inputs achieved on A3, individually annotated versions of the model during a 90-minute workshop. Each image has been rendered anonymous by putting the image number over the box provided for personal data. Images can be paired with an individual case identifier by replacing the initial number '6' with the letter 'R'.
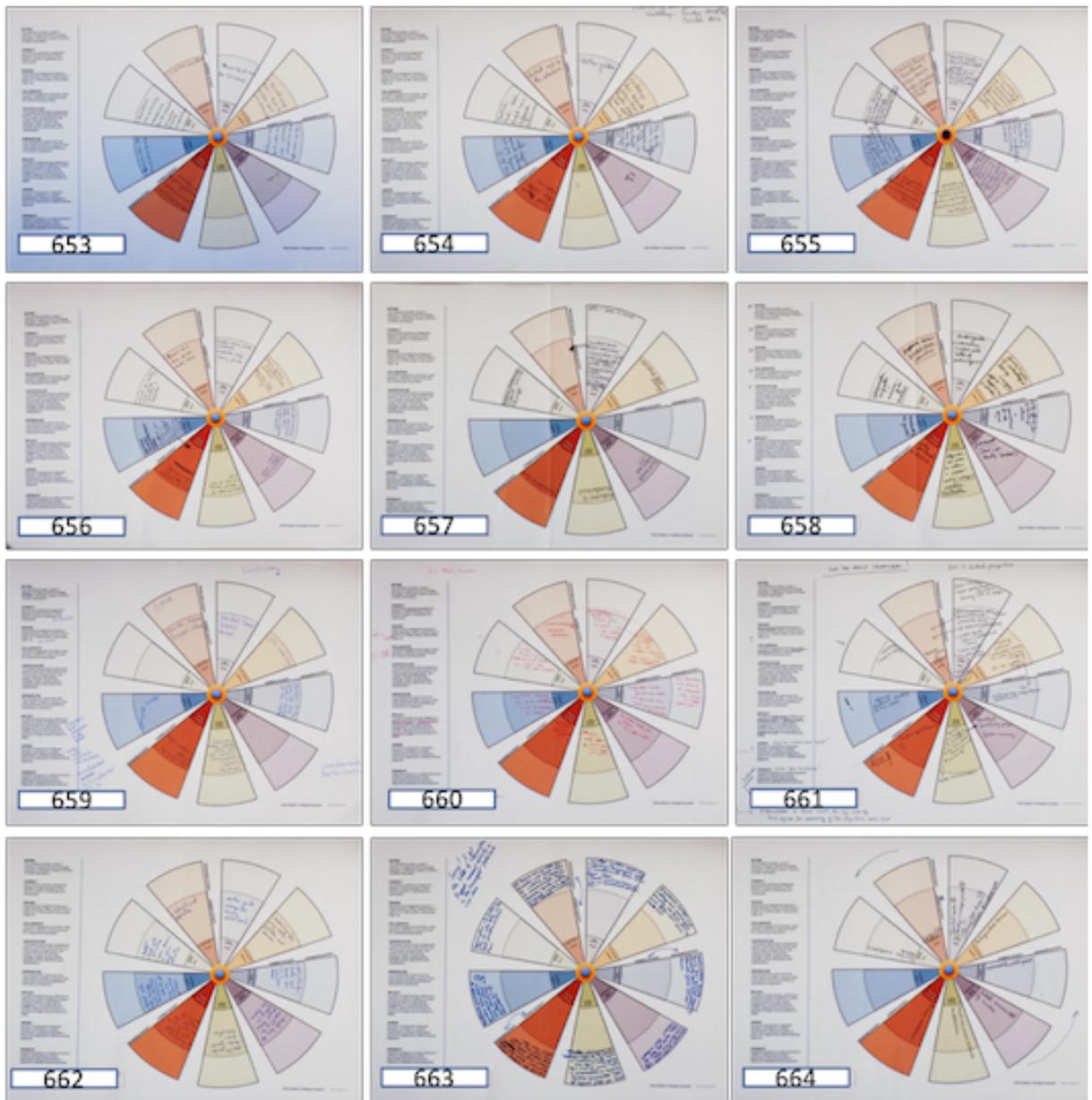
Figure 23 - Collage of all 12 A3 submissions from the Relevance London Workshop

Discussion

A great deal had been learnt through undertaking the Birmingham workshop in which I controlled all the parameters prior to the less predictable context of an international conference. Despite a number of challenges in capturing this data, the early morning timing of the workshop on a Sunday, the inability to pre-select the space to be used, restricted time allocation and time to reorganise or configure the room, there were a number of anticipated benefits. These included a test of the comprehensibility of the model with little qualification, the use of language with an international audience, the focus of current practice in the broader context of the complete model. Initial coding was restricted to managing the data as with the Birmingham data, but a number of coding memos were generated throughout. Questions arose as to the degree to which native English speakers had 'better' understood the model. Had they annotated more than non-native speakers? Had there been a consistent misunderstanding in the model's interpretation or had some individuals 'got it' more than others? These and other questions were noted as the basis for future analysis.

Verification

The process of data verification is an important one, and so each participant received evidence of their own submissions and, where appropriate, and suitably anonymised, others in their cohort. This meant that workshop participants were emailed photographs of their models within four weeks of each event. The data sharing was provided by email, and no explicit questions were asked of respondents and participants at this stage. As a result, there were only four acknowledgement emails received. Two emails returned 'not deliverable' messages. As will be explored in the following chapter, further correspondence resulting from the analytical process elicited minimal responses, and these will be identified as part of the ongoing analysis.

Follow-up email questions

Given the different enrolment process for each of the workshops, email collection varied. For the Birmingham workshop, emails were a prerequisite for enrolment through EventBrite whereas for the Relevance workshop I had no prior knowledge regarding who would enrol. As a result, whilst the Birmingham workshop registration

process generated emails I confirmed these on the consent form and the annotated models themselves. For the Relevance 2017 workshop I designed the individual A3 annotatable SOLE model to also include a space for email addresses to be provided and a consent form. All of those attending both workshops and submitting signed consent forms provided an email.

I had not planned in advance of the workshops, or the analysis of the data collected, what follow-up questions to ask. Clearly there was the potential for clarifications of illegible texts, but it was anticipated that further validation of the experience itself, its potential impact on individuals practice and institutional policy, was potentially valuable. In practice, the data collected was multi-faceted, and much of the follow-up questions were related to both the experience of the workshop and its enduring consequences, and to requesting for specific responses to 'anticipated future actions' provided by Birmingham workshop participants.

Subsequent Professional Conversations

Following the workshops a series of discussions were held with professional professionals designed to clarify some of the initial workshop contributions. These included a dozen Skype interviews, email dialogues and face-to-face encounters with UK based heritage professionals. In each case the questions posed remained essentially the same:

1. How do heritage institutions interpret the needs of self-directed adult learners?
2. What support do self-direct adult learners need and are these being met by heritage sites?

What became evident is that there is little consistency across the sector in either the interpretation of the needs of self-directed adult learners, indeed even a shared definition of what constitutes a SDAL. In answering the questions as to how needs are interpreted, responses varied between, "I would see all visitors as learners" (Private museum director) and "I view learners not as a homogenous group, but as active individuals who construct meaning and understanding on their own terms" (Heritage education consultant).

Through to;

In our context self-directed adult learners include:

1. Those who join our drop-in adult learning workshops (Searchers – a research group, Art group, Creative Writing group)

2. Those who join our drop-in Memory Lane reminiscence groups

3. Those who attend our lecture programme (daytimes, evenings, weekends)

4. Casual visitors to the museum (Head of a Local Council run Museum)

Other responses took SDAL as an overarching category and identified everyone from "adults with learning difficulties" to "young people looking for CPD" (Head of local museum) through to "inquisitive learners" (Specialist heritage venue). No responses articulated any mechanisms for establishing needs other than visitor satisfaction surveys which inevitably leads to repeating activities that are deemed successful.

Most heritage professionals it appears, having defined the SDAL in their own institutional terms are able to claim a degree of success in meeting those learners needs. If one chooses to define a SDAL as someone who signs up to a facilitated evening lecture then having a good attendance constitutes meeting the needs of that self-defined group of visitors.

Likewise in response to the question as to what institutions do to satisfy the requirements of SDAL varied depending on the working definition of that institution. As a result all were able to claim that their needs were being met, or at least that any deficiencies are recognised and are being addressed.

Many self-directed learners, and this seems to apply more to older people, want social interaction the learning is the means not the end. It can be challenging to provide in a museum environment, we do focus on signposting people to the Friends and to other similar organisations. (Head of regional museums)

The question as to what is done to support SDAL a long list of facilitated events were provided from, talks, plays, readings, lectures and tours. All of which fall clearly into the non-formal learning definition argued earlier.

It is evident however that there is no agreed sector interpretation as to the nature of the SDAL learner. Interestingly only one individual ask me to qualify how I define SDAL before willing to share an answer in the form of "is this adults learning independently within a facilitated programme or do you mean visitors in the museum?" (Heritage educator). The overwhelming majority regarding any adult (with the possible exception of those signed up to a formal programme of study) as representing a SDAL.

I think it reasonable to conclude that my workshop attendees' views are validated through these further reflections from their sector peers and that there is no clearly sector-wide definition of the self-directed adult learner.

Conclusions on Methodology and data gathered

I set out to explore the potential relevance of a model of learning design for higher education for the heritage sector. More precisely, the conceptions of heritage professionals with a responsibility for educational policy and practice with respect to independent adult learners. The methodological process that evolved is illustrated below in Figure 24 and identifies the 'funnelling' process undertaken to ensure that the instruments of data capture were appropriate to the methodology defined by the theoretical framework. This in turn was deemed appropriate to the context of the question being asked.
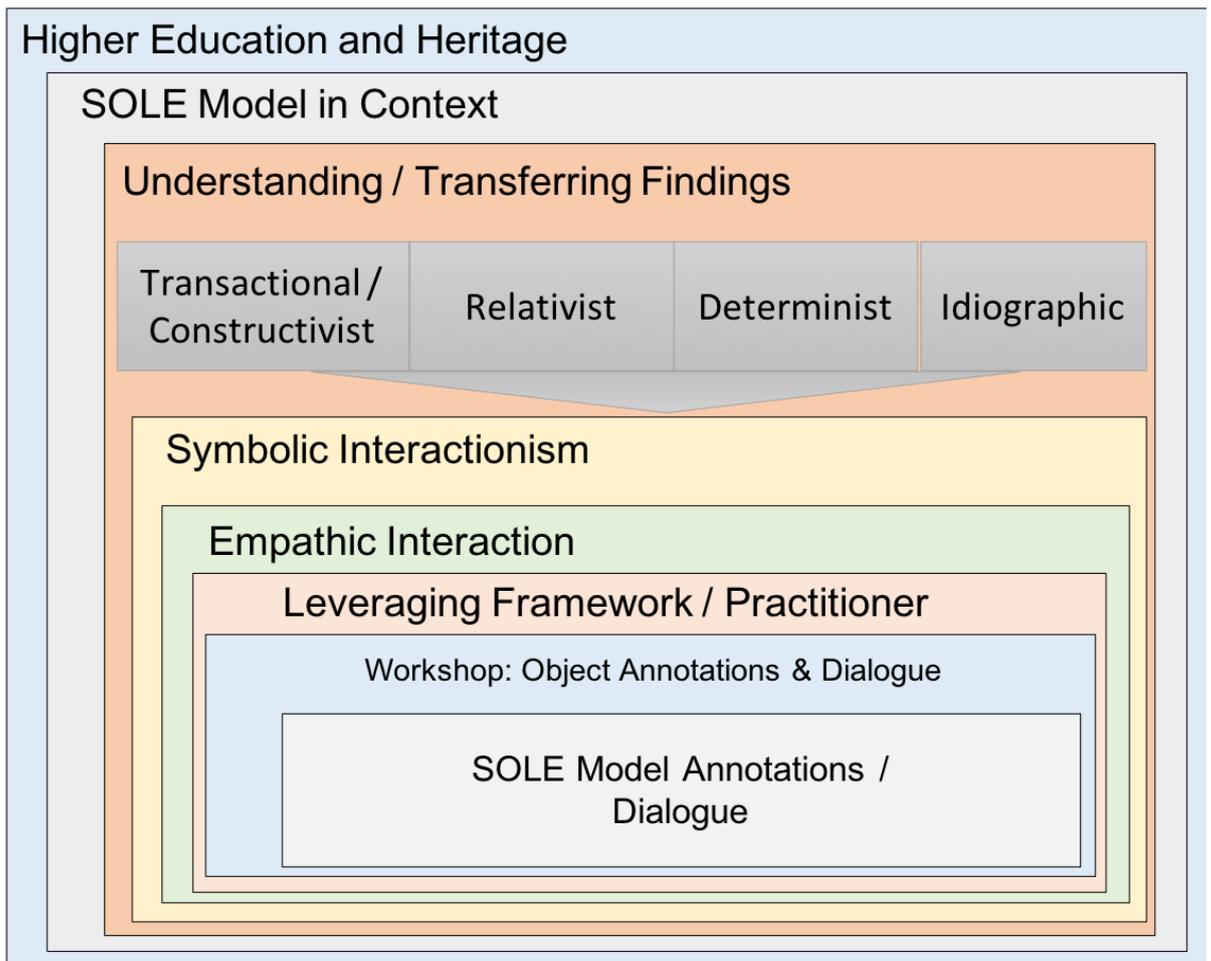
Figure 24 - Completed Research Model

The emergent methodology suggested 'analysis by case' and, as a consequence, it was intended to have one or more individuals representing a single institution (each institution representing as case). On reflection, it was decided to treat each individual as a single 'case' but to explore the 'dialectic interchanges' based around the physical manifestation of the 'object' in the form of large printed representations of the SOLE model in a form that could be annotated. The basis for this conclusion was the further notion that constructed realities are investigated through interaction between objects and subjects and the investigator (see Table 20) using the SOLE model as a catalyst for debate and discussion, as well as a means of recording data, made sense.

Relative strengths and weaknesses

Questions such as the significance of the order in which SOLE model elements were annotated by workshop participants may have allowed more insight into participants' comprehension and interpretation of the model had a simultaneous video record

made. Questions of the value of the dialogue between participants during the workshops would also serve to enrich the data set. Potential data collection approaches were discussed at doctoral review days and were deemed too dependent on technology. However, if any future funded research were possible, one could use multi-touch surfaces of a sufficient size to mimic the A1 paper annotations but capable of recording every stroke of coloured pens. This would provide a richly layered view as to the way annotations were built up.

I believe the strengths of the research have been twofold, its ability to answer the research questions and the inter-professional nature of the data collection process itself. As will be reported, the research questions have been answered. The adaptation of a World Café style workshop approach to data collection proved very effective. Both in terms of the annotations collected, which allowed for analysis and conclusions to be drawn, but importantly also as a forum in which significant dialogue occurred, between heritage professionals from different institutions and between heritage and higher education. I believe that the visual stimulus and the direct physical interaction with the model demonstrated, in an effective representation of symbolic interactionism, that conflicts, discrepancies and interpretations between educators are prevalent. Blumer's three qualifications of symbolic interactionism that (1) humans act toward objects on the basis of the meanings that things have for them; (2) the meanings of objects or things derive from social interaction; and (3) these meanings are dependent on, and modified by, an interpretive process of the people who interact with one another (Blumer, 1969); are borne out through the workshop methodology.

By describing the way that the data has been managed and introducing NVivo as a qualitative software management programme, I have laid the foundation for the next chapter which analyses different facets of the data, the effectiveness of the SOLE model itself as an evaluation model for heritage venues, and the process of physical annotations of a printed model as a research method. A total of 21 heritage professionals have provided the equivalent of 11,808 words of data for analysis, much of it in original annotations to the SOLE model. This is the focus of the next chapter.

Chapter 6: Analysis of Annotations

The museumgoer has conventionally been cast as a universalized figure who "looks at" objects in a detached, culturally approved manner comprised of sublimated desire, curiosity, and contemplative interest.(Hein, 2007, p. 34)"

I think most museums do [make] an effort to find out what the visitor liked about the museum or the people at the reception or the temperature [collective chuckle], and the quality in the museum etc, but the effect of learning is not something that we are very used to measuring. (RD)

In the previous chapter, I outlined the methodological process that I followed in capturing the data and detailed the substantial evidence collected. This chapter focusses on an analysis of the annotations made on the physical, printed, representations of the SOLE model. The coding of the annotations are justified, and I provide a scholarly reflection on their interpretation by reconciling, wherever possible, perspectives and theories from both higher and heritage education. I end the chapter by reviewing my analysis through four emergent themes. These same four themes then provide a series of critical perspectives through which the plenary dialogue, which provides validation of the annotated data, will be analysed in the next chapter.

Justification for analytical approach

In chapter 4 I explained the use of Nvivo. This proved effective in making it relatively easy to extract all of the comments relating to one particular aspect of the model, for example '*inform*-current' or '*reflect*-future'. This structural representation of annotations was then exported from Nvivo and copy and pasted into Word tables, an example of which for the element *inform*-current is shown in Table 30

B25	Website – collections research info, blog, videos etc, social media, micro sites – publications	R53	Panneaux – brochures – medias audiovisuels – Presse écrite – exposition

R25	Aimed at Schools – in depth gallery guides and extra topic info – worksheets. General guide to museum. Need to request. Will send to adults but they need to send request. Once in museum basic gallery guides, worksheets available. Website pre-visit info minimal. Occasional object info on social media.	R54	Booklets: Panels :labels: Guided tours Conferences Exhibitions
P25	Web pages – little detail as for marketing so not really useful for learning content. More detailed content for schools.	R55	Pre-visit information for schools and SOL groups: welcome exhibition to Painted Hall Project
P27	Promotional events – Downloadable App – Twitter – Facebook – Leaflets – teachers packs – Website text – Films	R56	Revisit info – learning packs, website information & interpretation
O27	leaflets – pre-visit emails – website – stalls at events – social media	R57	Advance materials: Website – pre info: FB page
G27	Educational Programme Booklet – Social media: fb: YouTube – website – Attending events to promote our place	R58	Infopanellen maquettes + museum gids booklet
O29	Facebook	R60	Recently science topics connected with social problem e.g. science talk. Talk with researcher
P29	Map @reception & in guidebooks (O29*)	R61	Exhibitions (labels & texts)
P29	How to get there on website	R62	Booklet: Flyer with activities: open session to inform about activities
P29	info on courses	R63	Description of historic site on web site, with text, photos, virtual tour
G29	Visitor needs – and Aspergers -> trained staff	R64	Teachers materials: website
O29	'What's on' section of website. Twitter. Paper info – fliers, guides		
G29	Permanent + temporary		
G29	volunteer-specialists		

Table 30 - Example of transcribed annotations in a Word table using those from inform-current (original languages)

My initial intention in doing this was simply to make annotations more easily printable to paper and so more transportable, enabling me to review and code away from the desktop computer. In practice, these paper-based versions of the annotations allowed the next level of coding to occur using a range of colour highlighting pens. The annotations for each element and the time period, whether current or future, were then tabulated and coded in NVivo against the model that contain them, with each workshop's annotations appearing in columns side-by-side. This represented the second level of coding.

Incorporating guidance from Saldaña (2013), I approached this second level of coding, beyond the first data management coding, with an open mind, initially seeking relationships, and word repetitions, simply to establish the appropriate approach to take. I decided early on that elemental methods, those that provide basic but precise filters (Miles and Huberman, 1994), were most likely to apply to my data containing both content based and conceptual annotations. Descriptive coding, one of the elemental methods, assigns elements of data to emergent nodes or labels. In my case, these were agglomerations of words with similar meaning; 'family', 'families' and 'family groups' for example. The adoption of a form of descriptive coding proved invaluable, given that it gave me the opportunity to incorporate three different languages. Rather than attempting to identify specific content, I was able to establish word equivalences, or synonyms, appropriate to specific topics (Wolcott, 1994).

The second level coding used on the plenary transcripts differed somewhat to the approach taken with the model's annotations. A combination of verbal exchange coding, in which non-verbal cues and pauses are integrated into the verbatim transcript (Goodall, 2000), and narrative coding, in which participants' words are dealt with as a form of story-telling (Holstein and Gubrium, 2012).

Analysis of Annotations

The analysis process began by exploring the descriptive codes attributed to each element's annotations. Each element began with the brief descriptor that was printed alongside the model in its paper-based workshop format. The sequence of the elements to be analysed was based on the order in which these descriptors appeared

alongside the model. As previously stated (Chapter 4), the model itself does not have a start or finish point or indeed a correct orientation.

Following the inclusion of the description of each element I then expanded on the descriptive coding used, justifying where appropriate any linguistic distinctions, synonyms or translations. As themes emerged and questions were raised these were indicated in the text. Contradictions and agreements between annotations, apparent misinterpretations or the blurring of boundaries between the specific elements, and indeed annotations that appear 'out of place' were also noted. Where there were also distinctions between the structure or emphasis of annotations made between both workshops, attention was also drawn to these.

It is also worth noting that, given that the reduced time available for the London workshop, participants were only instructed to focus on their current activity using the SOLE model in its purely evaluative format. In the Birmingham workshop, with the time allowed, the models' 'design function' was also explored by encouraging participants to anticipate future activities. Both facets of the model – current and future – will be reported here but the comparative nature of the annotations provided as reflective of current practice are taken as a whole first.

Analysis of Workshop Annotations

Inform-Current

"The materials provided, usually in advance, to support domain knowledge acquisition, information usually in the form of written descriptions" (copy appearing alongside model in its printed representation)

Descriptive coding and interpretation

There were 14 individual annotations made across three models at the Birmingham workshop and 11 annotations captured on 12 models collected from the London workshop. My contemporaneous notes for the Birmingham workshop show that, despite the only verbal explanation as to where to start focused on the 'inner circle' marked 'current', all three models began annotating the inform element first. An

equivalent observation was also made in the London workshop. It is reasonable to surmise that this was because it appeared near the 'top' of the model when orientated to read the element description appearing alongside the model. It is also the most easily understood in the vernacular, although as I will suggest, not always interpreted correctly.

Despite the context of the workshop and explicit focus on adult learning, it is remarkable that learning resources, and indeed interpretive panels, do not dominate the annotations. While it is recognised that the authorship of interpretative panels is largely the responsibility of curators, their significance to the visitor experience suggested that they might feature more explicitly in responses. The increasingly widespread development of more inclusive interpretive plans for exhibitions and institutions appears not to be reflected in participants' deliberations (Black, 2005). There is explicit mention of resources aimed at schools (R25) and resources designed with the schools in mind (G27, R55, R56), including the explicit mention of teacher's packs (P27) and materials (R64). There is also an intriguing mention of course information (P29), which was subsequently clarified in conversation with the participant as referencing a programme of public talks aimed primarily at adults.

It is noticeable that there is extensive mention of web-based informational resources being provided ahead of visits. Mentions of access details (P29), and site descriptions, including virtual tours (R63) and indeed there is mention of information being provided via social media tools (O27, R25) including via Twitter (O29) YouTube (G 27) and Facebook (O29, P27, R57).

There is a single mention of the use of a 'blog' (P 25) although it is conceivable that participant's understanding of the distinction between various social media tools significantly coloured individual responses. The use of a brand name Twitter for example rather than microblogging, as ubiquitous as this use is, does make the veracity of data collection process more problematic (Carr and Hayes, 2015). Without benchmarking peoples' appreciation of the various communication channels at the outset of the research, it is unwise to further segment individual responses.

There is mention of collection information being provided (largely via the web) including 'collections research' information (B25). There appear to be some interesting

contradictory entries including the suggestion that web content is aimed primarily at marketing and therefore 'not really useful for learning content' and yet going on to suggest that there is more detailed content for schools available (P25).

There is frequent mention of printed materials being available on site including the broad categorisations of publications (P25), in-depth gallery guides and worksheets (R25), leaflets (P27, O27), paper info-flyers (O29), brochures (R 53), booklets (R54, R62) and of 'presse écrite', which I have translated as 'printed material' (R53). It is interesting to note that the variation in language used to describe materials begins to identify particular targeted audiences, and this is a different data collection approach from providing a list of options and broad descriptions in a survey instrument which restricts the individual's ability to express the nuanced nature of the material. The distinction between a 'flyer' and 'brochure' or between a 'booklet' and a 'leaflet' is, however, moot without having sight of exemplars and so for the purpose of this research all of these responses are regarded as synonymous with printed materials.

There are, however, a number of incongruous annotations based on what appears to be a definition of the *target* for information rather than the nature of the information provided as in 'visitor needs' and 'Aspergers' and 'volunteer specialists'(G29). There are two annotations on topics that appear just once under this element, mention of a 'downloadable app' (P27), and of 'maquette' or scale models (R58).

There are four distinct annotations that relate to in-person information being exchanged, these are 'stalls at events'(O27), 'attending events to promote our place' (G27), 'talk with researcher' (R60) and 'open session to inform about activities' (R62). Given that these are in-person interactions they might arguably have been better positions under the *engage* element within the SOLE model; however, since part of the research is to identify the usefulness of the SOLE model's conceptualisation of learning in heritage contexts it would be inappropriate for me, as its author, to label individual annotations as being misplaced. All annotations are where they should be, recording all misinterpretations.

It is noticeable that in participants' conceptualisation of 'to inform', in the context of learning, the only explicit mentions of in-gallery interpretation appeared from the London participants identifying 'panneaux' or panels (R53), 'panels, labels' (R54)

'Interpretation' (R56), 'infopannellen' or information panels (R58) and 'labels and text' (R61). It is possible that this distinction between the London contributions and those in Birmingham is once again due to the difference in participants' professional remit. Although data was not collected contemporaneously as to people's distinct professional roles, the Birmingham workshop had been marketed to attract heritage educators explicitly, whereas the London workshop was open to all generic heritage conference attendees. It is reasonable to presume that some broader curatorial insights were being delivered by London participants (Butler, 2003). It is also evident from the emergence of a recurring theme in the annotations delivered by Birmingham participants in identifying 'inform' as being synonymous with marketing, access information and general promotional material, also mitigated against the citing of interpretive materials. This, despite the element's descriptor, printed alongside the model, explicitly states to "support domain knowledge acquisition". This is the first, of many, uses of language that distorts responses. In retrospect, the use of the phrase 'learning materials', as it appears regularly in the models used in higher education, would have undoubtedly focussed annotations.

It is noted that, despite explaining during my preparatory introduction to both workshops, the focus of the research was on the facilitation of adult learning, there is only one explicit mention of adults (R25) and five specific mentions of either schools or teachers (R25, P25, P27, R55, R64).

Fiona McLean describes education as being central to any museum's mission cautioning that "for many though, there is still little consensus on the place of education within the museum, and little recognition that education is an essential element both of access and of communication" (McLean, 1997, p. 113). This assertion appears to be supported by the conflation of learning resources and marketing communication particularly in the Birmingham participants' annotations. Certainly, there is a significant awareness on the part of participants of their institution's use of web-based communication and social media tools for marketing purposes rather than for delivering any pre-visit learning guidance or in-visit learning resources. The superficiality of citations for technology use suggests that, despite the rapid development in ubiquitous technology access and social acceptance, Ross Parry's

articulation of one challenge over a decade ago that "Even in the hypermedia moment, the emblematic coupling of text-and-image, text-and-object, has been resilient " (Parry, 2007, p. 77) still remains true, certainly in the context of London workshop participants. This notion is reinforced by the mention of an 'occasional object info on social media' (R25) and a 'description of historic site on website' (R63), both suggesting a lack of consistency and potential vision as to the use of digital access (Bertacchini and Morando, 2013; Parry, 2010, 2007).

There are exciting moves towards reconceptualising the museum collection as an information space, in which metadata attached to specific objects, collections and institutions might produce a navigable semantic web of contextualised data (Navarrete and Owen, 2016). There are national (http://weareculture24.org.uk/) and international (https://www.europeana.eu/portal/en) efforts to provide such exchangeable information between the public and heritage institutions that fall far short of such a vision but are a move in a positive direction (MacDonald and Alsford, 2010).

Connect-Current

"Synchronous (real-time) engagement between a guide (educator, curator, docent) in person or potentially as a virtual guide."

Descriptive coding and interpretation

Notes made contemporaneously indicate that, at the Birmingham workshop, participants followed the order in which SOLE model elements were defined on the left-hand side, namely a clockwise direction. No such observation proved practical at the London workshop given that I was required to brief latecomers. Early on, in both workshops, verbal clarification was sought from me as individuals completed the first element, as to the precise nature of annotations expected, the degree of detail and contextualisation anticipated. I repeated what I had said in my opening comments of the workshops, emphasising that what I sought to capture were individual's representations of a specific institution's responses under each element with respect to their learning agenda, and in particular adult learning. I believe there is evidence that this had the effect of, temporarily, focussing participants away from the dominant

agenda of school-level education, as we see an absence of significant references to schools or teachers. Indeed, amongst the 14 annotations from Birmingham and 11 annotations from London workshop, there are only three explicit references to schools from three separate individual participants (G27, O27, O29), one annotation relating to teachers (O27) and two references to adults from a single participant (O29).

Given the emphasis on 'synchronous contact with a guide' in the elements' description, it is unsurprising that there is widespread mention of the provision of tours in one guise or another. Such tours are described variously either as simply tours (B25) or using various terms to delineate guided tours (R25, P25, G27, R53, R54, R58, R59). Three participants identify who was doing the guiding, whether a 'tour with learning deliverer/ curator/ volunteer' (O27), 'with booked guide' (P27) or specifying that 'all tours are guided by "docents"' (quotes in the original annotation) (R63). Three other participants chose to identify where tours occurred, whether 'to the collection' (R54), 'ceiling' (R55) or 'Garden' (R56). One participant identified that their site offered 'themed tours'(R56) without further specificity.

It is noteworthy that three participants all working on a single model (729) in the Birmingham workshop neglected to specify tours as being a feature in their synchronous connection with learners. Given the likelihood that each participant would represent an institution that did not offer such tours is remote, this is most likely the result of some degree of groupthink (MacDougall and Baum, 1997). The conversation within any given group will undoubtedly have influenced the annotations made, as well as the possibility that collectively participants had failed to grasp the meaning of the element's description. This has been noted for further discussion.

This level of personal face-to-face contact, represented by a guided tour, appears to be nearly ubiquitous provision across heritage sites nationally and internationally. This pattern of facilitation represents a focus of institutional development for over a century as part of an evolving communication strategy, conscious or unconscious, implemented by heritage institutions (Hooper-Greenhill, 1999). The development and roles of volunteer guides was a major discussion point amongst participants during both workshops, indicated by the isolated annotation 'volunteers' (G29) and the above-mentioned 'docents' (R63). Given that no institutions are identifiable through

the evidence shared, it is safe to clarify that R63 represented a United States based institution. 'Docent' is almost exclusively a North American term. At the London workshop, there was significant interest from fellow participants in R63s' training and development of their docent population, which is indicated in their annotation here as being of 16 weeks in duration. The training and development of volunteer facilitators has long been of interest and concern to heritage managers (Moore, 1994) and currently the subject of emerging competency frameworks (Schep et al., 2018), although these are again focused on enabling school level facilitation.

The seven mentions of freelance guides, volunteers or docents (B25, G27, O27, P27, G29, R63) reinforces the significance of their presence amongst heritage institutions. However, a range of other in-person contacts were also mentioned under the guise of staff (B25), curators (B25, O27), academics(B25) and the more context-specific citations of roles including 'artist' demonstrations (B25), 'science communicator' (R60) and 'educational mediator' (R62). A number of annotations also identified specialist roles such as gardeners (G27) with a further inference that a number of participatory activities also involved specific individuals. This is indicated with a mention of 'costume tours' and 'costume interpretations' (B25, P25), as well as a range of demonstration opportunities through 'skills workshops' (B25), '(learn the skill) workshops' (R25), 'machinery demos' (P25), 'watching crafts people and engineers at work' (P27).

In addition to such demonstrations and costumed interpretations, there are also a range of participatory or interactive opportunities afforded to learners such as 'hands on' (G29) and 'handling trolley' (O27). Given that no strict lexicon was issued before individuals' engagement with the model it is possible that the use of 'interactive' in particular is broad and all-encompassing. The use of 'interactive displays' (G29), for example, does not immediately suggest any in-person synchronous contact, whereas an 'interactive storytelling session (with Makaton)' (P29) assumes face-to-face contact. Makaton (www.makaton.org) is a speech and symbol language designed to support language development and is not the only mention of interpretive work being done, as there are also mention of ESOL (R55), or English for language speakers of other languages, and of BSL, British sign language (R55) activities being provided.

What is noticeable is the lack of explicit mentions of heritage educators playing a direct role in face-to-face facilitation. Beyond one explicit single mention of an 'educational mediator' (R62) the participation of specialist education staff must be inferred. It is reasonable to assume that courses being managed (P25) or CPD sessions for teachers (O27) are likely to fall under the remit of heritage educators but this is not explicit. There are also a number of annotations which, without further context, are open to interpretation these. These include '"meet the workers" story' (P29) and the 'Detective game' (R61). Some enthusiasm for recording current practice, displaying the gem in the collection, undoubtedly resulted in some misunderstandings as to the definition of synchronous contact given that two individuals cite audio guides as part of their in-person facilitation (O29, R55). My definition of this element, in the heritage context, may have added to this misunderstanding because I used the term 'virtual guide', imagining it possible to be a synchronous virtual guide engaging in real time with a learner.

I believe it is reasonable to infer that adult participation is anticipated by institutions in the provision of talks (B25, P29), public talks (O27, P27), 'talks program' (R25) or lectures (B25). Clearly the institutions represented in my sample were eager to engage visitors through diverse means, from 'what's my object' drop-in surgeries (R25) to 'find out more' sessions (O29). Heritage as a sector continues to work hard to develop engaging opportunities for visitors to listen, observe, handle and be inquisitive in and amongst collections (Black, 2005).

Given the positive adoption of social-constructivist ideals by heritage educators, it is hardly surprising that there is a richness in the volume and breadth of engagement activities described in these annotations (Hein, 1998; Jeffery-Clay, 1998). What is less clear is the extent to which learning is at the centre of much of this activity. The single mention of an 'educator' amongst 19 respondents is cause for pause and reflection. The emphasis on directed engagement, through tours, observation, or through demonstration, suggests a degree of passivity on the part of visitors. On the other hand, there is clearly an intention to enhance participation through skills workshops and hands on interactive activities. As discussed earlier there are clear distinctions between the way in which children and adults are expected to learn, and Black's

statement (2005, p. 143) that "there is a tendency within museums to assume that either learning provision for children is more important than for adults or that adults will happily use the opportunities provided for children" is not contradicted on the basis of these annotations.

Engage-Current

"Asynchronous engagement between a visitor and a guide (educator, curator, docent) either in person or in written guides, audio guides, maps, etc."

Descriptive coding and interpretation

The initial first cycle coding of the annotations provided evidence of some linguistic interpretation difficulties experienced by participants. It was evident that the distinction made in defining the elements between *inform*, "materials provided usually in advance to support domain knowledge acquisition" and *engage* that the visitor-learner might benefit from "asynchronous engagement between a guide… either in person or in written guides, audio guides, maps, etc" was less than clear. In a higher education context, the distinction is clearer; *inform* would include things like course handbooks, the assessment guidelines, timetables and other structural media, whereas asynchronous engagement would include everything from journal articles to online lecture notes, email learner support, online discussion fora and the other facilities that provide a distinct voice, a person, without requiring real-time presence. In retrospect, my brief description of the element could have been clearer which might have facilitated less confused responses. I should have included the phrase 'not live' or 'not in real-time'.

Of the 30 individual annotations, comprising 18 provided by nine Birmingham participants and 12 annotations from London participants, there are at least 11 references to media that is clearly not asynchronous. These include mention of 'guided tour' (P25, R57, R59, R64), 'talks led by local history groups' (O29), 'workshops' (O29, R57), as well as more specific events that imply in person contact such as 'Maker Faire' (G29) and 'Craft Jam' (O29) and 'handling trolleys' (O29). Given that the 12 individual annotations provided by three participants in one Birmingham model (729) feature

eight annotations clearly representing in-person contact, synchronous activities, this particular group of participants evidently interpreted this element differently from others. It is interesting that the London participants, the majority of whom represented non-UK-based institutions, did not appear subject to this widespread miscomprehension, just 3 out of 12 submissions make mention of 'guided' visits or tours. It is possible that my oral clarifications provided during the workshops in response to questions were simply not heard or understood by those working on model 729, which was the furthest from the front of the room Figure 15.

It is also noticeable that, despite no explicit mention of digital media in the elements' description, there is strong evidence to suggest that this is perceived to be the major asynchronous contact between the institution and visitors. There are only five annotations relating to traditional heritage interpretation media, either to 'labels' (B25, R64), 'object labels + text panels' (P27), 'objects + exhibitions' (O27) or simply 'objects' (G29). This stands in contrast to digitally enabled communication referenced 18 times across a wide variety of media. These include video blogs (B25), social media (B25, R25, P27, G27, O27), emails (P27, O27, R57), voicemail (O27), QR codes (G29, O29), Twitter (R57), Facebook (R57, R63), reviews online (R63) and generic websites (G27). In addition to these 18 Digital media specified, there are three explicit mentions of an 'app' (P27, G27, R64), one of which is described as a 'multimedia guide' (P27). There is a single mention of an 'online collection' (G27).

It is possible that heritage educators, who do not necessarily have any curatorial influence and interpretive power over in-gallery panels and object labels, have simply overlooked their significance as an asynchronous engagement mechanism. There is only one mention of 'labels' (R64) amongst London participants, compared with four of either labels, text panels, exhibitions or objects amongst Birmingham participants (B25, P27, O27, G29); however, some London participants placed a significant emphasis on a range of printed materials. There is clearly a potential overlap between what was meant under the *inform* element and this current *engage* element, but I believe some of the printed material would be better classified under *inform* particularly 'maps given at entrance' (P27), 'orientation map' (R56), 'site maps' (G27), and 'Painted Hall maps'(R55), none of which suggest any overt interpretative content.

The range of printed materials that would include a degree of interpretive information are heavily preferred amongst London participants. Two principal terms used to describe such printed materials include 'guidebooks' (B25, G27, R55, R56, R57) or 'written guides' (R25, R54, R61, R62, R63). It is noticeable that three participants provided some contextualisation for their written guides noting 'written guide (from a professional view)' (R61), 'written guides only in foreign languages and on occasional free flow days' (R63) and 'painted house guide' (R56). The final element of printed materials which can be interpreted as segmented, or focussed, written guides are 'info leaflets' (R55) and 'interpretation papers' (R57). The use of some form of printed material appears across all sites and appears nearly ubiquitous. It would be interesting to undertake an analysis of such written material so as to determine both the degree of the presence of a' teaching voice' and indeed whether any of these guidebooks might also play the function of a learning workbook.

As might be reasonably anticipated under the element designated *engage*, there is widespread use made of audio guides across participants either defined as 'limited audio guides' (B25), 'audio – interpretation in situ' (G27), or 'audio/guide(s)' (R58, R59, R61, R62, R64). The effectiveness of audio-guides has been demonstrated and the costs in providing them continues to drop, making them an effective and cost-efficient means of engaging visitors more deeply in the institution's collection (Haywood and Cairns, 2006). Film and video appear to be used significantly less, featuring in annotations as simply 'video' (G27) and 'film projections' (R53) or the more contextualised 'film intro + explanatory film' (P27), 'videos in exhibitions' (O27), and 'videos with talks for archaeologists' (R58). There are also annotations relating to 'interactive' exhibits (P27,R58, R61, R64) and a further five annotations that undoubtedly relate to visitor interaction with collections not labelled as explicitly 'interactive'; these include 'oral history' (B25), 'visitors adding it to background knowledge of e.g. local industries' (R25), ''Pen Friend' audio points' (P27), 'visitors stories' (G29) (with an arrow indicating this activities relationship to the element *collaborate*) and 'engage with school girls to make new contents' (R60). This last comment stands out in its precision of the intended audience but is explainable given that it is offered by a STEM focused institution from Japan, a country which has

developed an entire sub-culture around the *rikejo* or 'science girl'. Attracting women into sciences is a major government priority in Japan (Osumi, 2018).

 The relative lack of references to 'interactives' is interesting. They represent far fewer of the annotations than I might have expected. This expectation is based in part on my own visitor experiences and attendance at trade shows, most recently at the *Museums + Heritage Show* in May 2018 (http://show.museumsandheritage.com/), in which 20% of commercial exhibitors were showcasing some version of interactive technology wares, to attentive and often large audiences. There has historically been remarkably little evaluation of interactive media artefacts being used by heritage sites (Paris, 2002). There are individual accounts of the effectiveness of interactive designs (Alberti et al., 2017), but little research that represents an evaluative framework to assess the effectiveness of interactive exhibition design given its prevalence in practice. In 2006, it was suggested that "though engagement has been identified as significant, it is not known how to design exhibits for engagement" (Haywood and Cairns, 2006, p. 14). At the same time, extensive research on the effectiveness of user interfaces and on sustained engagement was underway in the US (Humphrey and Gutwill, 2005), but relatively little explicit linkage was made of the measurable learning gain resulting from extended engagement. Humphrey and Gutwill's work significantly enhanced the arguments for pursuing engagement as a primary objective in exhibition design (Roberts et al., 2018; Tscholl and Lindgren, 2016) .

Since 2006, personal scholarship has explored the interpretation and deployment of digital artefacts in the form of evaluative frameworks of digital sound, text, image and film archives and this might also be a useful framework for exploring heritage interactives. The DiAL-e project created a framework for the use of digital artefacts, initially those drawn from a film archive, as learning objects with a clear articulation of the learning purpose of their use. The focus in this research was primarily on the effectiveness of the learning approaches these artefacts enabled, rather than any measurement of engagement. (Burden and Atkinson, 2009, 2008b). The lack of significance attributed to interactives suggests that they fall outside the purview of the educational professional, in the context of the Birmingham participants, and perhaps beyond the budget of international institutions represented in the London workshop.

This stands in contrast to relatively recent modes of digital communication being so heavily privileged (social media) amongst heritage practitioners' reflections and consequently their annotations. This indicates that there is an almost feverish desire on the part of institutions to reach visitors (Giaccardi, 2012).

Collaborate-Current

"The direct engagement with fellow visitor learners in real time or asynchronously for shared learning purpose"

Descriptive coding and interpretation

Given the fact that social constructivism is the dominant theoretical underpinning of most contemporary museum educational practice (Illeris, 2006) it is intriguing to see that the evidence presented by 13 Birmingham annotations from 9 participants and 12 annotations for all 12 attendees at the London workshop, suggests relatively few explicit 'visitor to visitor' collaborative activities are enabled.

Participants chose to identify specific groups with whom collaboration is institutionally facilitated rather than focussing on collaboration opportunities between visitors. Annotations include 'hosting disadvantaged groups to fulfil their learning agenda' (P25), 'dementia cafes (and) autism… charities'(B25) and 'dementia group Learning visits' (R56), all of which suggest that there is an active engagement certainly with those that have the learning disadvantages as part of a wider sectoral movement towards social inclusion (Morse et al., 2015; Sandell, 2003).

There are also a number of other organised groups in society with whom institutions clearly enable their collections to be used such as 'local history society' (R25) and a 'craft club' (O29). In the context of other socially constructed groups, there are frequent mentions of families (B25, P27, R62) alongside more specific descriptions of the nature of engagement in the form of 'family activities' (G27) or 'family trails' (O27, P29). More surprising is that there are only two mentions of engagement with 'seniors' (R62) as a discernible group, including an explicit mention of the 'University of the Third Age' (R55).

The facilitation of 'collaborative arts activities' (B25) or enabling local societies to exchange in 'research + techniques + info on projects' (R25) falls somewhat short of the notion of the interaction between two visitor learners, visiting either together or independently, engaging in making meaning around objects. There are numerous mentions of the notion of workshops in various guises whether as for 'learning' (P29), 'peer sharing' (R57) or with an audience specified namely that of all 'young adults, families and seniors' (R62). These suggest a more non-formal mode of learning facilitation rather than truly independent adult enquiry. Other designed engagement opportunities are mentioned in the context of trails for 'ESOL...schools' (O27) and 'for family' (P29), as well as a range of planned or hosted activities including 'sewing circle and art circle' (R25). There are again explicit mentions of educational collaborations including a 'public speaking competition with sixth formers' (R56) and an institutional collaboration with a 'Department of Life Long Learning' (O29).

Despite the descriptor being clearly visible alongside the model in its printed annotatable form, the majority of respondents appear to reflect an institutional perspective making mention of 'consultation and coproduction on the gallery developments' (B25), 'community exhibitions' (B25, R25), 'co-production (of) visitor displays' (G29) and 'co-production of exhibitions' (R55). These institutional level initiatives clearly do have opportunities for collective learning to occur as a consequence of the collaboration, but it is unclear from the evidence that there is explicit learning activity between individuals occurring. One possible exception to this is mention of an explicit 'workshop that demands collaboration – theatre plays where each has a role' (R54). However, once again this indicates some non-formal institutional provision away from the focus of the individual adult learner.

A continuing interest in digital tools is evident, although these are not clearly articulated in terms of learner collaboration, annotations include 'online discussions' (G27, O27) as well as 'social media discussions' (P27), noticeably all on the single model (727), and two mentions of Facebook posts (R58, R63), one of which does explicitly state that such tools are used to enable 'exchanges among the visitors during and after visit (Even before?)' (R63). One respondent also articulates further degrees of community engagement in terms of both 'community action panel (and) steering

groups' (B25). There clearly is a sector-wide mandate to collaborate widely across a range of community groups, enabling the use of both the physical spaces and digital media to develop polyvocality in exhibition planning and design. However, it is difficult not to conclude that some terminological misunderstandings are evidenced in choosing to include aspects of 'volunteer training' (B25, P25) or 'auto guided devices' (R64), by which I infer audio guides, under this specific element. There may be annotations which are simply included in the incorrect elements, for example the suggestion that 'Facebook posts on archaeological findings – Congress – not in real time and speakers' (R58), doubtless both provide opportunities for learners to collaborate with the learning provider rather than directly with each other and therefore this annotation might be more fittingly posted against the elements of *engage*. Such misattributions appear to be recognised by some participants in that one individual chose to begin their annotation with the descriptor of a different element 'Engage. Interview with our science communities with their activities' (R60).

What is noticeably absent is any explicit reference to individuals, couples or small groups of friends visiting exhibitions together outside of either an organisational grouping, such as a society or community group, or in the context of families. This suggests there is something of an assumption that group attendance is synonymous with learner-to-learner interaction.

For a great many researchers in both heritage education studies, and education more broadly, the advent of digital technologies has provided enormous momentum to social constructivist models of learning which are now rarely questioned. A range of educational theory and practice, from situated learning, communities of practice, reflective practice and others are interpreted through the ubiquitous use of technology, particularly the extensive use of hand-held personal mobile devices (Pachler et al., 2010; Sharples et al., 2009; Vavoula et al., 2009). There are a range of emergent interpretations of the inherent learning value of mobile affordances, focussed on one or more attributes of the technology, whether behavioural dimensions such as its authenticity, collaboration and personalisation (Kearney et al., 2012) or in combination with its technological functions (Farley et al., 2015). Whilst there have been attempts to produce meta-analysis of the educational value and

impact of mobile devices (Sung et al., 2016), no such equivalent study has focussed on heritage education.

This interpretation of collaboration, as part of the institutional mandate, appears to misinterpret what is intended in the SOLE model, namely the ability to make meaning, with others, around the artefacts explicitly in the context of the exhibitions (Dudley, 2009) rather than simply providing physical spaces to facilitate pre-existing groupings to engage in their normal practices.

Contextualise-Current

"The broader social (and/or professional) context in which the visitor learner lives. This includes, amongst others, their location and locale, their ethnicity, language, religion, gender identity, sexuality and any discernible social classifications."

Descriptive coding and interpretation

In the context of higher education, the notion of ensuring that learning is relevant to the real world, and remains 'situated', is widely understood (Lave and Wenger, 1991). This element of the SOLE model is about providing opportunities for learning to be socially incorporated or referenceable by those that experience them. Given the heritage sectors' preoccupation with its social accessibility agenda, it is reasonable to assume that this element would be richly illustrated both in terms of current practice and future ambition. Twenty-four individual annotations are reported, 13 from Birmingham workshop participants and 11 from London participants. It is also not surprising to see that a range of social classifications are elaborated amongst annotations based on the description provided. The sectors' broad awareness of multiple overlapping agendas in response to ongoing policy demands to diversify audiences and enhance their social impact is well documented (Mendoza, 2017; Museums Association, 2013).

There are a number of broad affirmations for 'community engagement' (B25), defined with varying degrees of specificity including 'Community groups to choose "paintings in tours"' (O27), 'Community display "Our Place"' (P29), and 'Community consultation: reflect communities' (G29, O29). There are also a range of references to community

more broadly namely 'groups of the city, we asked them to reflect on the collections' (R59), 'dialogue with visitors from all over Japan' (R60), as well as annotations seeking to identify the geographical origins of the visitor learner in the form of 'we take into considerat(ion) where they are coming from' (R54) and 'activities for locals and people who live in suburban areas' (R62).

It is noticeable that the use of the word 'community' occurs multiple times and across all three models annotated during the Birmingham workshop, but does not appear at all amongst London participants. This is likely to be the result of an immersion in the language of discourse amongst UK-based heritage professionals and illustrates the policy priority that is represented in various forms as community engagement.

There is one further reference to community amongst participants' annotations in identifying 'Community LGBT youth' (O27), and from the same participant in reference to an exhibition specifically related to 'LGBT' (O27). In terms of identifiable groups or social sub-classifications, the LGBTQI+ community are less well represented than others, but given the relatively small sample of participants it would be unwise to draw any conclusions as to the accessibility to heritage by members of this community (Levin, 2010; Tseliou, 2014). A well represented community defined under this element is the broad population of individuals classified by participants as in need of learning support or those defined as differently abled. This includes mentions of 'autism friendly hour – dementia cafes' (P27) and 'work (with people) with dementia' (O27), as well as a range of specific other abilities in the form of annotations identifying 'deaf takeover of the day' (G27) and 'special tour for the blind' (R58). In addition, in this broad classification there is also mention of 'tours for special learning students (from local schools)' (R63). None of these annotations suggest the degree to which such interactions constitute learning experiences for these visitors or the degree to which exhibitions are actively tailored or contextualised for the specific community. The prevalence of annotations made with respect to differently abled communities reflects a clear policy agenda (Allday, 2009). Annotations suggest that there is institutional facilitation for such community groups in terms of access to spaces, but it is unclear the extent to which adjustments are made in terms of learning facilitation (Ahmad and Cummins, 2016).

Beyond those defined as differently abled, there are a number of annotations relating to disadvantaged communities under the broad classification of 'vulnerable social groups' (R64), including 'working with groups to create displays e.g. Ben's Centre (homeless)' (O29), 'work (with) asylum seekers' (O27) and a reference to a 'refugee project' (P27). The extent to which heritage sites have engaged disadvantage communities within their environment is largely dependent on the demographic profile of their locale and the nature of the collections of themselves. A common feature of heritage sites, certainly in England, is engagement with 'Young/ socially disadvantaged parents' (R25) as part of an attempt to broaden the range of ages represented in the visitor population and in the hope of instilling self-pride and sense of community belonging (GLO3) (Mendoza, 2017). There remains, however, a persistent focus on provision for children both in the context of this annotation suggesting that family engagements are designed 'to help them get the most out of heritage with their children' (R25), as well as providing a physical venue for 'children's centres to run the parenting sessions' (P25), running 'age appropriate tours' (O27), and the rather self-deprecating 'only efforts for kinds of schools' (R58). The annotations appear to reflect the institutions' desire to enable access and generate visitor numbers rather than focusing on the nature of the visit itself.

There are a range of annotations relating to language provision, from the generic 'language' (R53), to more explanatory 'gallery guides in different languages' (R25), 'English as a foreign language' (G27), 'ESOL trails' (O27), 'visits in different languages' (R54) and 'English to speakers of other languages' (R55). We can add to this the earlier reference to provision made for deaf people (G27). It is noticeable that only one of the non-UK participants in the London workshop mentioned taking account of 'la langue' (R53), although it is plausible that given this individual represents an African institution, in a French-speaking country in which diverse languages are spoken, a range of national languages are reflected within their institution. The absence of any specific mention of multilingual interpretation, particularly from London participants is surprising given that it is demonstrably present in a significant number of European heritage institutions (Garibay and Yalowitz, 2015), as witnessed personally in several

institutions in Madeira, Amsterdam, Brussels and Paris in the last two years, for example.

Participant R53 also cited considering the 'religion' of the visitor-learner alongside others who made references to a 'Faith gallery' (B25) and specific provision made for an identifiable religious community in the form of a 'medieval focus on Jewish community with help from current Jewish community' (R25). Again, this lack of adult focussed learning with respect to religious belief, is somewhat surprising given the relative ease with which it is possible to engage individual adult visitor-learners with their own ability to interpret artefacts through the lens of their own belief system (Skydsgaard et al., 2016).

The somewhat vague notion of making provision available to individuals based on 'social level' (R53) or 'with specific cultural groups' (R25) suggests that institutions may simply be uncomfortable profiling visitors based on a range of sometimes contentious classifications, as already discussed in my introduction. Institutions have enabled community participation by way of sharing physical resources, in providing 'venue for cultural groups to meet to socialise' (R25). There are, however, three annotations that argue for further broad representation of communities within their institutions (all interestingly from the same model: 727) in the form of 'diverse representation in interpretation' (G27), mention of 'special exhibitions' (P27) and 'diverse images on leaflets' (O27), all of which express a sector-wide desire to explore the notion of diversity and reposition in their practice (J. C. Atkinson, 2014).

There are a range of specific communities identified outside of the categories suggested in the element's description but entirely appropriate, including 'Women in eng(ineering)' (P27), 'groups with the historical military interest' and 'academic engagement with a collection' (R56), 'contemporary confectioners' (R61) and 'woodworkers (sic) tools… stained glass artisan tours' (R63). It is somewhat surprising to see that professional groupings are relatively poorly represented amongst annotations given that a significant proportion of exhibitions are likely to have a direct relationship to a current profession; in the way in which, for example, the Museum of London linked their 'Fire!, Fire!' exhibition about the Great Fire of London 1666 to the roles of current professional fireman (Jeater, 2016).

Once again there is also a clear bias amongst those working at the Birmingham workshop on model 729 for a more institutional focus rather than that of the learner visitor and with significantly less verbose annotations than the other two models. At this stage in the workshop it is possible that a degree of negativity had begun to set in amongst this particular group given that there are mentions of 'poor funding … difficulty…cuts' (O29) and 'cost efficiency' (G29).

Personalise-Current

"The individual life context which the visitor learner occupies, as a source of real-world activity that can be identified as connections to experience"

Descriptive coding and interpretation

The input of the 9 participants in Birmingham working on 3 models on this element is represented in 14 annotations, with 11 out of 12 individuals in London providing comments. It is immediately apparent that this element presented an interpretive challenge, evident in two respondents stating 'no' in response (R53, R54). As individuals have worked through the model they appear to have become increasingly self-reflective and critical, using language such as 'reminiscences, but don't capture it well' (B25) and 'fotobooth (but not really 'context')' (R58).

It is interesting that this element in the context of heritage education appears to prompt responses that might be more appropriate under the elements of *reflect*. Certainly the ability for the visitor to personalise, as well as socially contextualise, their visit is likely to prompt reflection but in the context of the SOLE model this remains distinct. Examples of these more reflective annotations include observations such as 'personal stories reflected in collecting objects + exhibitions/ displays' (B25), and 'encourage comments in exhibition – how it relates to you / what objects had significance for you' (R25). Contributions from visitors that could also be regarded as explicitly reflective in nature are two mentions of 'oral history' (B25, P25) and 'reminiscence work' (O27). The boundaries between the elements of personalise and reflect blur in annotations reflecting the ability for individuals to contribute; 'collecting stories from volunteers about their favourite objects' (P27), 'collecting stories of people who worked with an engine' (P27) and 'visitors contributing to our protest

exhibitions' (O27) are three prime examples. The examples given by participants also suggest that the very nature of the exhibitions themselves are regarded as being targeted on particular communities who might by definition then be personalising their experience including 'exhibition about real local people' (O27) and 'childhoods exhibition project coproduction – should children work' (G27). In these annotations, we see a possible blurring between personalise and contextualise.

There are again tendencies towards wanting to highlight the ability of trained staff to 'personalise' the visitors experience; for example, 'in the museum visitors chatting to (volunteers) about personal stories related to objects' (G27), or the ability of 'docent guides ask why visitors are there. Then tailor the tour reflected that interest' (R63) as well as the more perfunctory 'trained/ responsive staff' (G29). Arguably, at the risk of borrowing heavily from my educational lexicon, such actions would be better classified as the customisation of the visitor experience (differentiation and individualisation by the provider) rather than a reflection of the individual's ability to personalise it (Grant and Basye, 2014).

There is naturally enough a focus on memory (R61) and reminiscences (B25, O27) alongside the previously mentioned oral histories (B25, P25) in this element. However, there is also a recognition that memories are being made and so use is also suggested of social media interactions (B25) and conversations (P25). There are numerous annotations suggesting that photographs taken during a museum visit serve to reinforce the participatory experience, describing such activities in terms of the ability to 'takes selfies and share' (P27), 'Photo frame – visitors to stand in frame + have photo' (G27) or simply 'fotobooth' (R58). This is surely evidence that 'I was here', although its relationship to learning is less clear.

Again, there are surprisingly few annotations relating to the opportunities for interpretive practice to enable personalisation to occur. One explicit annotation suggests 'interpretation that encourages people to relate to objects / historical people' (O27), which implies a degree of passivity compared to another annotation that suggests that 'labels commented by visitors (sic)' (R64) might allow for some meaning-making to be both experienced and recorded. The emergent ethical challenges of

capturing visitor-generated content and interpretation is undoubtedly an obstacle for many practitioners (Kidd and Cardiff, 2017).

There are a number of annotations in this element from both Birmingham and London participants that appear to be out of context. In the London workshop, these include mention of an 'ESOL programme' (R55) and 'engagement with artists and artist groups' (R56), which might appear more relevant under the collaborate element. This suggests that the approach taken by the majority of participants in workshops was to work through each element systematically rather than to absorb the significance of each individual element at the beginning, approaching it more as a worksheet rather than painting a complete picture.

What is noticeable in the evidence of this particular element is the apparent misappropriation of annotations within one particular Birmingham group. Model 729 appear to be largely exploring the semantic and linguistic meaning of personalise rather than providing examples of practice. The three individuals working on this particular model have appear to have brainstormed synonyms for 'personalise' in volunteering 'identity' (G29, O29), 'belonging + entitlement' (O29) and a more expansive 'ownership / learn / upskill / language / confidence / employability health & wellbeing' (G29). Whilst the group may have been engaged in an interesting dialogue around their practice, their annotations are not helpful in elaborating such practice. It is conceivable that one individual chose to forensically analyse each element and drew fellow participants into a discussion of interpretations rather than brainstorming existing practice.

In the context of adult education, there is a broadly agreed notion that learners base their newly acquired skills and knowledge by building on what they already possess. This recognition that adults approach any learning situation with the reservoir of prior insights, is both fundamental to Malcolm Knowles's definition of andragogy and the emergent frameworks from researchers such as David Boud and Stephen Brookfield (Boud, 1993; Brookfield, 1983; M. Knowles, 1975a). This prior knowledge combined with situated learning and real-world learning contexts is a powerful recipe for all learners (Lave and Wenger, 1991). It should also allow for experiences to be built one

on top of the other (Kolb, 1984), and yet there are no annotations that reflect this incremental construction of personal meaning being created.

What is surprising is the lack of any focus on the value of the returning visitor in the context of their personalisation of learning. A visitor who already has seen a collection has a reservoir of knowledge to build upon. They might realistically be expected to seek more targeted engagements on future visits and be prime candidates for personal learning experiences. However, the evidence from tourism literature (Oppermann, 1999) and museum economics (Brida et al., 2014) suggests that a significant proportion of return visitors have as equally diffuse intentions as do initial visitors. Return visitors are as likely to find a museum a purely convenient or comfortable place to return to rather than an indication of enduring curiosity and learning engagement.

Reflect-Current

"In context of tactile learning, defined as a reflection-on-action to reflection-in-action process through the visitor learner engagement. In non-tactile learning contexts, defined in the vernacular, as 'pause for thought' and provocations to reflect."

Descriptive coding and interpretation

It was anticipated that the three elements likely to be annotated last would be *reflect*, *assess* and *feedback*. This was certainly the pattern seen amongst Birmingham participants although as already stated it is impossible to account for the sequence in which elements were completed by London participants. It was also foreseen that there might be some difficulty in interpreting the notion of reflective learning in a heritage context, prompted by personal site visits and conversations with heritage professionals over the previous two decades. The description printed alongside the model (and repeated at the head of this section) tried to guide participants to some extent in differentiating between two forms of reflection in which learners might be supported. The first is a reference to tactile learning and, in deference to an appreciation of the widespread use of show and tell, and object handling activities run across the heritage sector, this was articulated in adult learning language as reflection 'on and in action' (Argyris and Schön, 1978). It had been anticipated that some

explanation of this terminology would be required, and indeed was requested in both workshops. The second more quotidian usage of the word *reflect*, that of simply 'quiet contemplation', was explained in terms of 'pauses for thought'.

To my quiet satisfaction the quantity of annotations did not diminish despite anticipating that the conceptual divide between higher education and heritage learning might be widening at this point in the interpretation of the model. The nine Birmingham workshop participants furnished 14 annotations and 11 of the 12 London participants provided annotations. The annotations broadly illustrate an engagement with reflective opportunities, although by this stage in the model engagement process participants appear to be beginning to self-evaluate and move beyond simply profiling, from the learner's perspective, the opportunities that exist. It is noticeable, for example, that one participant says 'only our best guides do this. Reflection during tactile engagement is very rare on our site. Post tour little less rare. If it happens, it would be to seek reflection on emotional response' (R63). In the subsequent plenary this comment caused further discussion.

Birmingham workshop participants demonstrating some self-reflection and institutional perspectives include 'first thought what do adults want?' (O29), and a further comment that lacks a direct focus on the visitor learner but focuses instead on institutional reflection is in the form of 'reflection + celebration built into projects i.e. AAs Award. – Intense project management process includes a legacy and lessons learnt' (B25). This last annotation illustrates a move towards an evaluative mode of thinking. These comments suggest an institutional reflection on practice but prove less useful as illustrations of the means by which institutions facilitate learners' reflections. Evaluation was not at the time of the workshop a distinct element of the SOLE model, rather it was deemed one of its four intentions. This is because, although it is facet of learning design in higher education that has traditionally not been shared with students themselves before their studies, the model, as previously described (see Chapter 3), was designed to serve as an active study planner for the learner themselves. Students in higher education provide evaluative comments, incorrectly labelled in my professional view as feedback, in the form of end of module evaluations and the National Student Survey, but these evaluative comments are generally not

integrated into the curriculum or learning design itself in a way that allows those students to experience them. Having shared the model in a different context as part of this research, I have made some modifications to the SOLE model which will be further explored in my conclusion.

There are 25 individual annotations with all workshop participant allowing for a single 'X' (R54). First level coding identified a wide range of engagement opportunities repeated from the other elements but often with the additional text to contextualise the degree of reflection. Prompted perhaps by the use of the word to tactile in the description there are instances of 'object handling' (B25, R25, G27, R58) as well as a range of other interactions including 'interactions with animals' (P25) and 'participation in Victorian schoolroom' (G27). A number of different terms were used to indicate other interactive and participatory activities including 'visitor reflection food + where it comes from' (P25), 'hands-on interactive exhibition' (P27), or simply the term 'interactives' (O27, P29). Allowing for the fact that the majority of London participants were not working in their first language, it would be unwise to overanalyse the term 'touchable' (R58) or 'tactile household duties of maid and housewife' (R61). What is evident is that, as previously suggested, interactives form an important part of the mechanisms by which museums seek to engage visitors. It is noticeable, however, that none of the annotations relating to such participatory activities indicate how such engagement prompts reflection. It remains noteworthy that the majority of research on interactives' effectiveness appear limited to child or family based studies (Eberbach and Crowley, 2010) .

Relying again on human interaction there are a range of opportunities for visitor learners to question in a range of different scenarios, including 'prompting discussion or reflection via suggested questioning' (B25), 'plenary at the end of led sessions – deeper questioning from volunteer hosts' (G27), 'Tours that ask open ended questions' (O27) and 'open-ended question – reflective questions in sessions' (P27). Other annotations indicate other forms of mediation between knowledgeable others and the visitor learner, in the form of 'Conversation with staff' (G29), 'Family leading workshops' (P29) and a site specific 'discussed about energy problems' (R60).

There are some mentions of classic interpretation in the form of 'panels, labels and gallery guides' (R25) alongside indications of other forms of 'open questions in interpretation' (G27) and 'interpretation that asks questions' (O27). There is also mention of multimedia prompting reflection in the form of 'videos with interpretation' (R58). In the heritage context where each learner-visitor may conceivably only visit a site once, it is unclear how 'comment cards' (P29) or 'evaluation forms' (R57) can serve the equivalent of an in-learning reflection. The notion, however, of 'people walls' (questions where people can leave their reaction) (R59) is more defensible as an ongoing learning reflective process.

There are two annotations which explore institutional engagement with 'mindfulness' (R57) and 'meditation' (R64) and in this last annotation the notion of 'multi-sensorial resources' (R64). This appears as an allusion to the somatic nature of object-based learning (Chatterjee and Hannan, 2017) and I find it interesting that such language is not more prevalent certainly in the context of object handling, something that has become increasingly integrated in heritage practice;

> *Object handling in museums, while once forbidden, is now*
> *increasingly a part of in-house and outreach programmes across*
> *different age groups as the biopsychosocial and neuroscientific*
> *aspects of touch and tactile interpretation become known. (Camic*
> *and Chatterjee, 2013, p. 67)*

A possible deployment of the SOLE model could be to undertake an evaluation of the educational affordances around a specific single object. Museum staff assessing an object's potential as a catalyst for memory in the case of people with dementia or those with Alzheimer's (Camic et al., 2017), or recognising the opportunities for inter-cultural understanding (J. C. Atkinson, 2014), would be revealed differently through the SOLE model.

A somewhat spurious annotation with no apparent connection to the *reflect* element is that of 'Braille guides, audio guides, audio description' (R62). This is an example of an annotation made in the context of a workshop which did not afford a verbatim opportunity for clarification between researcher and participant. I can speculate that

the participant believes this form of resource to be inherently reflective. Given work on the effectiveness of narration they may, of course, be correct in that there is evidence to support the notion that an audio interpretation would prompt more reflection than its written equivalent (Haywood and Cairns, 2006). In the case of the mention of Braille guides, it is likely that the participant identified this as a tactile resource, although in the SOLE context this constitutes reading and is more suitably identified under the *inform* element. The challenges faced by the visually impaired would make an interesting filter to be laid over the SOLE model as an exhibition aid (Argyropoulos and Kanari, 2015).

The final selection of annotations relates to the vernacular use of reflection as a 'pause for thought'. There are seven annotations that describe a range of spaces that are recognised, certainly by the participants, as being suitable for contemplation. For two participants, reflective spaces are clearly synonymous with a peaceful environment, describing them as 'quiet space / physical space' (B25) and 'some spaces for quieter times in galleries (but when gallery(s) are busy these are lost)' (R25). This lack of deliberative facilitation of reflection is articulated in annotations describing 'seating in designated areas' (G27) and 'seating in museum areas' (P27). Other comments suggest some incidental recognition of the reflective opportunities afforded by spaces in describing them as ''dwell' areas' (O27), 'Spaces to reflect across the site' (R55) and 'Spaces for people to reflect-benches to look at the view' (R56).

Returning briefly to the notion of evaluation serving as reflection on the part of the institution rather than on the part of the visitor learner, there is an opportunity for both to be carried out at the same time. The distinction in higher education here is between in-learning and on-learning evaluation processes, with the first informing both learners and faculty as to their teaching and learning strategy – in my practice I use an approach known as Small Group Instructional Diagnosis or SGID (Black, 1998) – and the second generally associated with end of module evaluation which has no bearing on the current students' experience and is largely managerial in function.

There is no clear evidence from my participants of any attempt to prompt or support deliberative reflection in any educational sense. This is disappointing in a policy and practice context in which there are claims made for museums and galleries, gardens

and historic houses existing as a "serene and contemplative space" (Soren, 2009, p. 239) and indeed suggestions that;

The museumgoer has conventionally been cast as a universalized
figure who "looks at" objects in a detached, culturally approved
manner comprised of sublimated desire, curiosity, and contemplative
interest. (Hein, 2007, p. 34)

And yet despite Hilde Stern Hein's advocacy for a more active and proactive view being adopted by the visitor, in her case through Feminist Theory, there is little evidence from the annotations collected in this research that active, structured, support to this end is available to the visitor. I will explore what such support might look like in my discussion chapter.

Assess-Current

"Any form of assessment, diagnostic, formative, summative or synoptic. Assessment is ordinarily expressed in terms of its relationship to defined learning objectives."

Descriptive coding and interpretation

Assessment is the first of the nine element that places the model in a clearly educational mode. A superficial understanding of assessment, taken in the vernacular, is likely to lead participants to assume a degree of formality (see Chapter 2). Despite the element description describing a range of assessment forms, the absence of 'self-assessment' may have undermined the ability of participants to interpret the element as intended. In my typology there is nothing to prevent a non-formal educational provider from enabling self-assessment or peer assessment opportunities (Witthaus et al., 2016). Examples of this will be described in the discussion chapter.

It is noticeable that during both workshops, questions arose as to the interpretation of assessment in the context of adult education of visitor learners. At the Birmingham and London workshops, I described the different forms of assessment articulated in the element description as they are used in higher education, both to the entire cohort, and then again to a number of individuals. Despite this fact, it appears as

though misinterpretation of the concept of assessment in both workshops was persistent. If, however, one takes assessment as synonymous with evaluation, as indeed arguably an American or French speaking participant might understandably do, then the responses appear more intelligible.

There are 14 individual annotations from all nine participants in the Birmingham workshop and 11 from the 12 London participants. One London participant wrote nothing.

Given the policy focus on school-based education, it is unsurprising that material is 'aimed at schools – in-depth gallery guides and extra topic info' (R25) and this notion of additional material is reasserted in 'more detailed content for schools' (P25) alongside the provision of 'teachers packs' (P27) or 'materials' (R64) and 'pre-visit information for schools' (R55). There is a single annotation relating to adult learners in the form of a reference to 'SOL' (R55) groups, otherwise defined as 'self-organised learning'. There are references to 'worksheets' (R25), and an 'educational programme booklet' (G27) but little that explicitly allows for any diagnostic or self-assessment on the part of the visitor learner. Once again, the emphasis is consistently on what the institution provides rather than what the visitor learner does.

There are multiple instances of institutions' 'website' provision being cited (B25, R25, P27, O27, G27, P29, O29, R56, R57, R64) without any explicit linkage to learning and assessment. There are also frequent citations of digital media as part of the institutions' communication strategy including social media in various guises (B25, R25, P27, O27, G27, O29, R57). Some annotations suggest a degree of caution on the part of participants in instances such as 'occasional object info on social media' R25) and 'webpages little detail as from marketing so not really useful for learning content' (P25).

Participants clearly struggled to identify examples of current practice that in any form assesses the learning of visitors, instead they described more of their communication activity. Once again there was a clear difference between workshops. Birmingham participants focused on engagement activity and marketing. 'Promotional events' (P27), 'stalls at events' (O27) and 'attending events to promote our place' (G27) all featured on a single model but were reflective of other Birmingham contributions

citing 'publications' (B25), 'info on courses' (P29) and the responses to enquiries in the form of 'Will send to adults … need to send request' (R25). The London participants representing a broad range of international heritage sites focused primarily on the exhibitions themselves citing 'panels' (R53, R54, R58), 'exhibitions' (R53, R54, R61), 'labels' (R54, R61) and 'models' (R58). This is an interesting distinction between the two cohorts and it is open to a range of possible interpretations. I conclude that the focus of UK heritage sites is on getting people through the door whereas the international representations are more concerned with representing the quality of their collections at an international conference, despite the fact that their evidence was not shared with other participants in the workshop and was not going to be linked directly to them or their institutions subsequently. The mindset of workshop participants clearly impacts on the evidence provided. This needs to be considered when both running such a data collection activity but also in its interpretation.

Even if one assumes that the participants in both workshops had chosen to interpret assessments as institutional evaluation rather than learner assessment, there is only one explicit mention of any formal mechanism for capturing such evaluative data in the form of 'collections research info' (B25). There is also a tangential reference to such evaluative activity stated as 'revisit info' (R56).

Once again, those participants annotating model 729, who were certainly actively engaged in group dialogue throughout the workshop as witness by me, provided scant annotations and appear to be litigating institutional policy rather than providing structured annotations. References to 'permanent + temporary' and 'volunteer-specialists' (G29) appear somewhat ill-fitting in the context of this particular element, however interpreted. Given that the majority of participants appear to have worked their way through the model clockwise starting with the *inform* elements, it is important to note that by the time participants are annotating *assess*, they are on the penultimate elements. Given an apparent linguistic mismatch or mission incompatibility, it appears as though the majority of participants in both workshops, rather than choosing to leave an element blank, have simply restated the dominant themes from their previous annotations.

Given the ubiquitous pressure for institutional evaluation, the need to constantly justify visitor numbers and expenditure (Barrio and Herrero, 2014; Gstraunthaler and Piber, 2012; Paulus, 2003), it is perplexing to see so little reference to formal evaluation if indeed that is the way in which this element has been interpreted. Annotations, then, are largely a restatement of a range of communication tools, channels and approaches to attract visitors. Certainly, all of the social media channels do implicitly contain data reporting tools within them, including number of YouTube views, number of likes on Facebook and so on, but the fact that this has not been clearly articulated by participants suggests a degree of confusion.

Practical guidance provided in the context of science and discovery centres (Gammon, 2003) demonstrates that here are a wealth of opportunities for non-formal assessment type activities. It is noticeable, however, that this work neglects to deal with the assessment mechanism and instead refines that broad educational objective towards something that starts to appear more like intended learning outcomes that I recognise from a higher education perspective. There is remarkably little literature, beyond the work of Leicester's RCMG in generating the GLOs (Hooper-Greenhill, 2002), that explores the actual efficacy of learning through heritage visits (Donald, 2017). There are examples of a willingness to attempt to formulate a framework for learning acquisition in a museum context (Brown, 2007), although this framework is critical of the GLOs' ability to do just that.

Feedback-Current

"Guidance on quality and level of evidence (comprehension and/or appreciation) being demonstrated in response to indefinable learning objectives."

Descriptive coding and interpretation

As I witnessed, and recorded contemporaneously, the feedback element was the last to be engaged with by all three groups at the Birmingham workshop and casually observed to be so amongst participants at the London workshop. There are noticeably fewer annotations pertaining to this particular element. It is conceivable that time pressure may have played a factor in the diminished responses amongst London

participants, but no justification can be made amongst Birmingham workshop participants where pacing was provided by me as the workshop facilitator. There are 11 annotations provided across all three models in Birmingham and 10 out of 12 individual models in London. Once again it is noticeable that those participants annotating model 729 from Birmingham provided comparatively few comments when placed alongside the other two workshop models. I conclude that confused by the concept of assessment in their institutional context, this self-critique continued in to the final element.

As already stated in the context of earlier elements, particularly that regarding assessment, there appears to be a fundamental misunderstanding of the nature of feedback in the context of heritage learning. Indeed, this same terminological debate exists in higher education, described above, and this is an issue that was dealt with in the plenary for both workshops. In higher education, there is some broad understanding of the use of the word evaluation to denote some structured enquiry as to the efficiency, effectiveness and value of the learning experience provided to students by eliciting comments from them on their own learning experience. Feedback, on the other hand, is guidance provided to students as part of their learning. This terminological difference is recognised in UK higher education but wildly flouted, not least in the language surrounding the National Student Survey which elicits students' 'feedback', which should be properly termed student evaluation. To make matters more complicated, the term evaluation in North America, and indeed in French, is synonymous with assessment. It is perhaps not surprising then that asking heritage professionals to reflect and record their individual institutional provision for feeding back to the visitor learner in order to advance their learning is overly ambitious. The description of the element printed alongside the model was explicit, although in retrospect it could have been more so including the term 'to learners'. I will return to the flaws in the model's implementations as part of a review of workshop methodology in my conclusion.

As a result of the misinterpretation of the notion of feedback as being synonymous with evaluation there are range of the instruments featured amongst annotations including the use of 'comment cards' (O27, G29, G27), and various forms of written

evaluation forms (P25, B25, O27, G27, R60). One contribution suggests the terminological ambiguity is captured within a single annotation of 'assessment/ feedback forms' (O29). There are three annotations denoting site-specific forms of evaluative comments received from visitors which do proffer the suggestion of being more reflective on the part of the visitor, these include mention of the 'visitor book' (P29), 'people (sic) walls' (R59) and a more expansive annotation that suggests this particular institution would 'record with video camera (with visitors' permission) in order to not lose the memories of them' (R62). There is certainly value in designing evaluation collection instruments that also prompt further reflective learning on the part of the visitor learner but, in these cases, there is no evidence of a feedback loop being created.

What is noticeable amongst annotations is the context in which the word feedback is used. In each case, the direction of feedback is clearly denoted as being from the visitor learner to the institution rather than the other way around. Such annotations include 'feedback from inclusive access forum' (P27), 'feedback from group leaders' (P27), 'friends and volunteers feeding back on interpretations' (O27), 'feedback from visitors on how they enjoyed their visit / if they took anything away?' (R56). These annotations are also associated with a number of others that indicate the casual nature in which such evaluative data is collected. The focus of such evaluative comments includes specific aspects of institutional provision including 'interpretations' (O27), 'training and mentoring of volunteers and front of house staff' (R55), in 'evaluating the guides' (R58) and the more expansive suggestion that 'feedback provided to guides from peers on occasional basis' (R63) noting that this feedback is 'not very structured'.

The in-person contact between institutional staff and the visitor learner appears to be an important source of evaluation, including 'asking verbally' (R53), 'we do it orally but not using a particular written form' (R54) 'verbal feedback' (O27) and 'in Informal feedback chatting to the visitor' (R61). Nonetheless, there are a number of more structured evaluative processes cited including 'survey' and 'structured conversations' (R56), as well as 'interviews' (P25). The new ubiquitous nature of social media that permeates throughout society and has inevitably had significant impact in the heritage

sector, once again suggesting that institutions rely on 'social media interactions' (B25) or the ability to 'respond to social media comments' (O27) with three institutions explicitly citing 'Trip Advisor' (P27, G27, P29) as a source of evaluative comments from the learner-visitor.

No participants cited any implicit learner feedback capabilities built into any exhibition design itself. What is particularly noticeable is the absence of any advocacy for interactives given that these represent a reasonably transparent opportunity for learning designers to reinforce learning through an immediate real-time feedback loop. Such feedback is clearly available, and indeed is almost certainly already present, in a great many interactives but the fact that it is not explicitly articulated amongst the annotations, particularly from those heritage educators represented in Birmingham, is somewhat surprising. There are also other opportunities to build feedback into any exhibition where there is a curatorial voice guiding the learner-visitor through either a thematic or chronological sequence. Enabling the learner to evidence achievement of a specified learning objective from one gallery, exhibit or object to another strikes me as an available mechanism for heritage institutions to deploy.

The academic and professional literature in heritage is rich with examples of 'feedback from visitors' but remarkably scarce when searched for 'feedback to visitors'. The paradigm shift that digital interaction represents in heritage provide the richest examples of such 'institution to visitor' directed communication (Rowe et al., 2017; Not and Petrelli, 2018). Relying heavily on ubiquitous Wi-Fi and mobile devices, gaming and visually appealing interactives, studies suggest that feedback on actions, not necessarily of definable learning, is relatively easily achieved. Small scale studies with school aged children where interactives are design explicitly to teach conceptual knowledge suggest there is significant learning gained (Eberbach and Crowley, 2010) but there are no large scale studies, either for children of school age or for adults. There is also evidence that whilst younger learners score a museum experience more highly when it features digital interactives, rather than more traditional modes, the actually measurable learning gain remains the same (Zaharias et al., 2013).

I believe it remains the reality that visitors are ordinarily classified based on their demographic attributes rather than motivational factors. If learners are not identified

as such, and are not supported to identify learning outcomes against which they can generate evidence of attainment, feedback to them on their learning is moot. In a discussion about digital access to learning museums, FutureLab stated;

> *Some museums include as virtual learners only those using specifically designed websites, others count virtually every visitor as a learner, while yet others make no distinction between on-site and online learners. Similarly, while many museums report separate figures for schools, for children (other than in school parties) and for adults, the criteria used vary widely. (Hawkey, 2004, p. 10)*

Despite all the affordances of digital technology for participation, content creation, learning outcome identification, assessment and feedback, what emerges from the annotations in both workshops is that the heritage institutions represented in my workshop do not identify the learning needs of adults and explicitly support them, they rather assume that all visitors are learners. This will be explored further in the plenary discussion.

Emergent Themes

Through my interactions with participants, particularly those in the Birmingham workshop, four broad themes emerged from the process. These themes were identified during the workshops and formed the basis for questions in the plenary session at the end of each workshop, as discussed in the next chapter. They also provide an effective filter to analyse the annotations previously seen through the perspective of the SOLE model elements alone. In retrospect, I was performing an 'on-my-feet' form of coding of verbal interactions with participants. As I was being asked questions about the model, meanings of descriptions or sharing anecdotes between participants, I was making rough notes using a form of simultaneous coding (Miles and Huberman, 1994), alternating between the roles of participant observer, and complete observer, although at no point did I become a complete participant (Bernard, 2002b). The four themes that emerged from these observations and interactions are the participants;

- impressions of the SOLE Model and its applicability to the heritage context
- reactions to workshop format, actions of sharing and of annotations
- disciplinary nature of language
- interpretations of knowledge and learning.

Impressions

The annotations display a depth and breadth of responses which were extremely satisfying from my perspective. I believe the attractiveness of the visual representation of the model and its tangible form made engagement with it easier. At both workshops the model was described variously as 'pretty', 'beautiful' and as a 'flower' or a 'sunburst', all positive associations. Individuals also commented on their ability to physically 'spoil' their model, one Birmingham participant commenting they didn't want to be 'the first to ruin it'. Despite this, the fact that individuals were faced with an attractive representation of the model, printed in full colour, and being invited to populate it with their annotations clearly had a positive first impression. The volume of annotations and the peripheral marks and commentaries suggest that the model was well received. The fact that all elements attracted roughly the same volume of annotations during the Birmingham workshop also suggests that, given sufficient explanation, the model appears to be applicable to a heritage education context, with the proviso that disciplinary language is taken in to account.

Reactions

The differences between Birmingham and London workshops with regard to format and the sharing of ideas annotations are intriguing and were largely anticipated. I had expected even more 'group-think' occurring in the Birmingham workshop, with three individuals sharing a single A1 model, and a greater diversity in responses from London's individually completed A3 versions. This was not the case. In fact, I believe it would not be possible to compile any three of the London participants' responses onto a single model and see a degree of equivalence to their Birmingham counterparts. There are examples of sharing and repeating concepts, marked by asterisks and arrows amongst Birmingham models not practicable amongst London participants. These vary between two models (725, 727), annotating only outside the boundaries of defined elements of the model for want of space, whereas model 729 provides extensive

structural annotations, including the word 'dialogue' written between each and every element. This holistic reinterpretation of the model, reinforced by in-workshop discussion about context, demonstrates the flexibility of this physical activity. This returns to the question of the model's applicability to context in which participants in Birmingham discussed amongst themselves the policy context and the stress on community dialogue. There were noticeable uses of arrows to indicate either a repetition or continuation between annotations on one particular model (729). These structural annotations reflected the very lively discussion about the structure of the model, the configurations and sequencing of elements.

Of the 12 A3 models completed individually during the London workshops only one demonstrates any such structural annotations (R61). This individual's annotations outside of the model itself represent ongoing reflections as to the function of the model. This includes notation such as 'for the adult learner!' and 'from a student's perspective' and also includes a number of arrows illustrating the connections between annotations made in one element that is relevant to another. This model also contains two significant exclamation marks placed in the 'future activity' zone of the model, not dealt with during London workshop, both stressed by going over repeatedly with pen. One in particular is of note, given that it occurs in the *Assess* element and is place alongside an annotation that says, 'learning objective' (R61). It might be inferred that this individual was thinking about the future impact of the model's redeployment from higher education to their context.

Conflicts

On the face of it, there appears to be little in terms of annotations that portray the differences in the use of terminology between higher and heritage education. However, with analysis (see above) of those annotations that appear to deviate from the elements' intended purpose such discrepancies become evident. Other than minor structural annotations made on three of the London models (R59, R60, R61), there is little to suggest that the elements required further redefinition. What the models do not capture is the in-workshop dialogue between myself and individuals, and the cohort as a whole, for clarifications. As is my usual practice, when asked a question by a given individual, I give my answer to the whole group. So, when asked by an

individual in Birmingham what I meant by asynchronous and synchronous I provided a definition to the entire room. Likewise, in London when asked to share my understanding of assessment (as described above), I was responding to an individual enquiry but replied to the entire cohort. I sought in my responses to minimise the differences between higher and heritage contexts and instead to provide illustrations that were comprehensible by both. For example, in answering the question of 'what do you mean by assessment for the adult learner', I suggested this could be diagnostic assessment online prior to an exhibition visit in order to help the visitor generate some intended learning outcomes. This theme will reoccur in the plenaries that followed.

Interpretations

The reliance on information sources across a number of different elements in the model, in both Birmingham and London, suggest that there is a narrow interpretation of the concepts of knowledge acquisition and learning processes. Although I had chosen not to position the SOLE model in opposition to, or in facilitation of, the Generic Learning Outcomes, I had assumed that Birmingham participants would have been aware of them. It is noticeable that the only unprompted mention of the GLOs came from a European participant in London. As a result of not explicitly positioning the model, in its design mode, as one that enables learner-visitors to provide evidence towards predefined learning outcomes, the interpretation of its learning value was left open. I believe the annotations suggested that the overwhelming majority of annotations, from both workshops, record engagement opportunities, not definable learning. There was evidently a stress on engagement and community participation but little segmentation of visitors as learners. In recent years, there has been a backlash against the convention that an engaged student is an active learner with those in the compulsory education field arguing that in no way is engagement proxy for learning (Coe, 2013). Further, there is evidence to support the notion that 'discovery' learning, the foundation for much of the growth in interactives in the heritage sector, are equally ineffective in producing meaningful learning (Mayer, 2004).

Conclusion

In this chapter I have analysed the annotations provided by all 21 participants across both workshops both through the SOLE model elements and four emergent themes derived from in-workshop interactivity. Where appropriate, I have drawn on relevant scholarship to contextualise my analysis. The workshop approach provided the first response to questions and queries that emerged from participants in-situ, effectively representing real-time validation of responses. In the next chapter, I will detail and analyse the plenary interactions that served to further validate the annotations by using the four emergent themes that were established during the Birmingham workshop and subsequently used also to structure the plenary in London.

Chapter 7: Data Validation, Analysis of Plenary Sessions

Creating a shared vocabulary and narrative: helping participants to understand key concepts, having a strong, overarching narrative that sits above programme outcomes (Ahmad and Cummins, 2016, p. 5)

we found the language, as to be expected, quite tricky, given that it's coming from the adult education sector and the university sector, and I realise that but, it would have been helpful certainly for me to unpick things a little bit more things like the contextualise and personalise, they feel very similar (B24)

In the previous chapter, I analysed annotations provided by participants in both the Birmingham and London workshops. This analysis made use of the inherent structure of the SOLE model itself adopting a perspective based on each of the nine elements of the model, drawing on both my in-workshop observations and scholarship. I then went on to explore four emergent themes and reflected back on the annotations in the light of these. These themes, emerging initially from the Birmingham workshop and reinforced through the London workshop, informed the structure of the plenaries that followed on each occasion. I, therefore, propose to adopt the same analytical filter as I explore the plenary interactions that served to further validate the annotations.

Audio recordings were made during 30-minute plenaries held immediately after each workshop activity was completed and later transcribed. The four themes that emerged through observation and concurrent notations arising from in-workshop interactions are;

- impressions of the SOLE Model and its applicability to the heritage context
- reactions to workshop format, actions of sharing and of annotations
- disciplinary nature of language
- interpretations of knowledge and learning.

Birmingham: First Impressions of the Model

Both workshop plenaries began with a deliberately open-ended question, asking participants to volunteer their first impressions of the model, its use and effectiveness as an evaluative instrument in their heritage context.

> *I found that when we started looking at the beginning looking at the inform, connect, and engage, we were using websites and flyers to inform and connecting to people, engaging with people, as we were going round. When we got to personalise and to reflect, assessment and feedback we were finding that quite hard because maybe that's what we need to work on more. We've done lots of activity, let's get people in, let's have a great time, let's get them valuing the museum but then how do we record all of that? (B01)*

Participants began their annotations based largely on the tangible elements available within their institutions, such as websites and printed material such as flyers. These are obvious means by which to inform visitors although less appropriate as illustrations of the SOLE model elements for *connect* and *engage*. It is noticeable, however, that once the physical materials became less relevant to the elements under discussion, participants struggled to find evidence of their own activity. This opening reflection as part of the plenary immediately identifies the difficulty faced in demonstrating engagement through the last four elements tackled by participants, *personalise*, *reflect*, *assess* and *feedback*. The workshop appears to have prompted an awareness on the part of this participant that maybe these are the themes which require more work. This quote also ends with a question which will occur repeatedly, that of how to record visitors learning experiences. I will propose a solution to this later in the discussion.

> *I don't know (I) think it's something to look at, I think a lot about that, the reason why this is difficult is because we're kind of given funding for all this activity and by the time you've done it, the funding's run out so all the kind of assessment and reflection from learners at the end (doesn't happen). (B02)*

As is common in any focus group or plenary style session there are individuals who choose to either recast the question or theme under discussion using alternative language, or to establish obstacles upfront, presenting potential safe havens for future dialogue (Bloor, 2001). It was apparent from several of the annotations, particularly those on model 729, that there was likely to be some mention of the institutional funding obstructions that would mitigate against any actions by individual participants. Funding is clearly a major institutional constraint and this participant has chosen to make this abundantly clear early on in the plenary. Another participant was more self-reflective;

> *I think a lot in part of our discussion is we're all ex-teachers, so we are*
> *quite used to stringent and clear assessment procedures, and our*
> *experience in perhaps in museums is this we don't have the same*
> *kind of reflective assessment procedures that we would recognise*
> *from formal education. (B03)*

Participants with an orientation towards school-based education and its formal constraints, noticeably the national curriculum in the United Kingdom, struggled to reconcile their annotations and reflections with the concept of non-formal learning and assessment. There is an interesting debate to be had between the application of assessment in formal, non-formal and informal contexts. In higher education, there is a move to the more diverse forms of assessment, including peer and triad groups and self-assessment. These forms of assessment, that do not require the active participation of an academic lead but do require significant learning design input, are certainly appropriate for the non-formal contexts of heritage institutions. However, it has to be recognised that just as the cultural change takes time in higher education, the ability to write meaningful self-assessment rubrics is a skill in short supply (Gallavan and Kottler, 2009; Stevens et al., 2013). This theme is worth highlighting and will be expanded on in the discussion chapter.

> *If you get an adult in, who's come to visit, and they've just come in on*
> *their own, they want to learn something, how do we find out about*
> *it? That's the thing, we've got all the information about what we do*

provide, to point them in the right direction, but then how do we find

out afterwards what they've learnt? (B05)

This idea that institutions do not know how to establish what a visitor might have learnt from their visit, and to what extent their skills and attributes have been enhanced, is a persistent challenge. Whilst many heritage professionals appear consistent in their pursuit of the notion of evaluating the learning experience (De Backer et al., 2015), higher education is equally interested in assessing the evidencable learning, measured ideally against intended learning outcomes. What B05 is capturing in this single quote is the need for the learner's journey to be articulated from the beginning when they 'come in on their own' through to finding out 'afterwards what they've learnt'. This participant suggests that the institution necessarily needs to know what it is the visitor wants to learn in order to provide it to them.

I would argue that it is not necessarily a requirement for an adult to tell anyone what it is they want to learn, only that they have a clearly self-defined intended learning outcome, the attainment of which can be self-assessed at the end of the visit. I might, for example, establish at the outset of my visit to my local museum that I want to understand why Abingdon lost its railway station in the 1960s. As I leave the museum I might be asked what I learned today, based on what I had set out to learn. My response would be that Abingdon's railway connection was closed to public traffic in 1963 as a result of government rail policy, the growing road network and changes in economic productivity with freight ending in 1984. I don't need to tell the institution that it is my intention to learn these things in order to learn them, or indeed to be actively assessed on such learning. What would be helpful, however, would be some enablement of such an adult learning process, and this again will be considered in my discussion chapter and conclusion.

> *It's easier for us to do the easier things to do. That's partly because*
> *we've already got targets to meet, wherever you work, in a museum*
> *or gallery or council, and the targets tend to be for income and or for*
> *visitor figures. So, you want people to come through the door and*
> *you count them off, and brilliant we've got the numbers we predicted*
> *we'd get or told to get this month, or whatever, and income, you*

know OK, we haven't used too much money, we've got enough

income coming. So, a lot has to do with the quantity of people visiting

a museum or heritage site, where as stuff about, like, it's not about,

it's not that we don't care about the quality, but it's so much more

difficult to measure, so then because it's more difficult, and that's

why we don't have targets for it, because I don't know how you

would set those targets. So therefore, that's kinda not what we're

kinda focusing on, because we know we've got to have this number

of people this month, we've got to make this this much contribution.

(B06)

The trend towards increased managerialism in most public-sector domains appears unabated (Klikauer, 2015). As with higher education, the heritage sector faces constant demands to self-justify all expenditure and seeks matrices by which to measure success, both in the UK (Kawashima, 1999) and internationally (Lusiani and Zan, 2010). The number of visitors through the door, or through an exhibition, is a quantifiable result can be measured against established targets (O'Neill, 2013). BO6 also makes the point that establishing a quality measurement, regardless of whether it is the visitor experience or learning, is not featured in most targets and indeed represents a challenge for institutions. At its most simple, I would venture that a simple exit question to visitors in the form of "can you identify something that you learnt for the first time during your visit today?" could be relatively easily introduced. To do this without having established targets would be a useful benchmarking exercise. Imagine a situation where such a question was asked at The Ashmolean Museum and only 8% of exiting adults could identify anything that they had learnt, and after interventions are carried out the same question produced a 30% positive response, that would justify further investment in such interventions. In the context of adult education, assuming a degree of learner autonomy, the answer to the question B06 asks, 'how you would set those targets', could be that you allow the adults themselves to do so.

I think you also you don't always know what to do with it [evaluative

data], so if we were to collect that kind of quantitative, erm

qualitative, information, we don't always have the skills or the

knowledge to know what to do with it, or the organisation should or

could do with it, assuming that the organisation does have the ability

to do something with it. (B07)

As workshop participants explored the definitions of the evaluation and assessment alongside the concepts of quantitative and qualitative data, another emergent theme developed alongside how to establish targets, namely how to measure them and respond. The lack of skills is twofold, first in terms of a perceived lack of internal capacity to analyse the quantitative and qualitative evaluative data resulting from visitor experience surveys, and second, an inability to conceptualise models of non-formal assessments. As has already been established one cannot assess without having already established what is to be learnt. The skills, therefore, of non-formal assessment design require its counterpoint in establishing the means by which individual learners can be supported to develop learning outcomes.

we found it harder to do the first bit [current practice], but I think

that's because I was getting my head around the process through the

first bit whereas when we got around the second bit [future activity]

we started making connections between all the stages. Whereas

before we were going to each stage and thinking about it. But having

done that we found it easier to do the second bit. (B09)

On that second bit, it was maybe about building on what you're

already really doing and seeing how that can be developed bit

further, and that's kinda what we were doing (B12)

As participants become more comfortable with the definitions associated with individual elements of the model, greater connections emerged (B09). My contemporaneous notes indicate that, after lunch, when attention was focussed on future activity, two out of the three models engaged in an unprompted review of their existing practice and the majority of arrows and asterisk were added at this time.

This incremental comprehension of the nature of the model mirrors its use in higher education settings. Not only is there a need for distinctions to be made between

elements but also to establish, within an institutional context, the relationships between them. It is worth restating that the toolkit associated with the SOLE model allows for language to be adjusted to an institutional lexicon so each element remains hermeneutically consistent, despite being identified differently.

> *I think for me with the future stuff for those with an unlimited budget*
> *it's a peacock, it's still bounded by the reality of what my*
> *organisation really would do, and you know I was quite limited, you*
> *know things that where {name} was saying 'I'd use an iPad for that',*
> *and OK with unlimited money you could use iPad but I know*
> *realistically my organisation wouldn't do that, you know, (saying) use*
> *'post-it notes'.(B10)*

Asking participants to articulate current practice and also to be able to think in more hypothetical terms as to what might be possible presents another challenge. Despite the clear invitation to think about what might be possible without any financial constraints there are always individuals who are incapable, or unwilling, to explore such imaginary constructs. In the case of B10, who described such an imaginary context as being 'a peacock' and insisted on remaining within their own 'bounded' reality, I suspect an opportunity is missed whilst all the while making a sound observation.

Clearly a great many institutions do find themselves with very severe financial restrictions but what is interesting about this particular observation is the positioning of technology versus analogue tools. This strikes me as particularly pertinent given that in my academic development practice I am a huge fan of the post-it note. Indeed, one of the key tools that I encourage academic practitioners to use as an evaluation and feedback mechanism is the post-it note. For example, inviting students as they leave an individual seminar or lecture to slap a post it note observation on the back of the door as they leave. Ordinarily, I would suggest some guidance is provided, perhaps a simple question such as "out of 10 how confident are you that you could now explain (whatever the concept explored in the seminar was) to a student who wasn't present". Having gathered up these evaluative comments, I would then encourage the academic to feed back to the cohort at the beginning of the next session. Rather than assuming

that all progress requires significant financial investment, it is worth exploring more analogue means. In an alternative version of the workshop in future, I would define the exercise differently without suggesting an unlimited budget but instead possibly unlimited support and time.

London: First Impression of the Model

> *It was quite difficult for me, to understand and go through, because I*
> *thought that there were lots of overlap maybe, so lots of arrows on*
> *my map. And that it was actually a very good tool for reflecting on*
> *my institutional practice because I could put in the envisaged activity*
> *part as well. [I see a big explanation mark!] Yes, exactly that I know*
> *what to improve (RA)*

The focus of the shorter London workshop was on current practice only. It is interesting that leaving the model with both its current and future elements in place led to participants conceptualising, and on occasion annotating, future ambitions. On reflection, had I modified the model to just focus on the current practice, I would have been doing a disservice to London participants. I think the suggestion once again that there is a significant overlap between the elements strengthens the argument for a greater degree of pre-workshop orientation for participants. The danger of doing so still remains the fact that it invites a degree of semantic debate which is not always helpful. The issue of language will also be dealt with as part of future discussion.

> *It's a useful tool to understand several phases of our educational*
> *process or museum process, like preparing activities, like how the*
> *activities prepared for one group, because when we talk about adult*
> *learners, you can talk about younger adults, some target, we can talk*
> *about families another target, we can talk about seniors other*
> *targets, so then the assessment, the assessment for evaluation is very*
> *important because in times we as educators define some activities*
> *and evaluation is not so good, so that for me is one of the most*

interesting parts of this model because it allows us to redesign those

activities again to our focus group (RB)

This particular quote from RB is particularly interesting in that it contains a positive interpretation of the models' use and advocacy whilst at the same time displaying a misinterpretation of the function of particular elements. The suggestion that the model might represent a useful tool for planning illustrates one of the other four facets of the model in its conception, as a descriptive, diagnostic, developmental and evaluative model. Identifying the design and preparation of activities as being targeted to particular audiences is an interesting way of looking at the exercise.

I could envisage using transparent sheets overlaying on a model with each transparent sheet representing a different audience segment so as to build up a multi-layered image of an institution's entire provision. This positive interpretation of the model's potential adoption is, however, somewhat undermined by RB's suggestion that the reason for doing such segmentation is to enhance 'assessment for evaluation' and then goes on to identify the potential deficit in evaluation practices. Whilst I am tempted to interpret RB's final comments, about redesigning specific activities with a view to enhancing their learning efficacy, I suspect that would be unwarranted.

Birmingham: Use of the Model

It makes me think back to when I was teaching, and you thought

about what you wanted the children to learn first and then the

activity on that, I feel that sometimes we think 'aww, yeah, this is

great activity and let's do this and it fits in with the exhibition. But

maybe we should be thinking more about what the learners want.

But then we'd have to have a conversation with the learners to find

out what they want, so we'd need to do this first [pointing to the

model] to inform that bit. (B30)

The invocation of the school-based learning features once again in the comments captured from B30. The belief that identifying what one expects someone to learn, then designing activities to enable that, is clearly articulated. However, the absence of any clearly articulated implementation in current practice is equally clear. The

suggestion that identifying what it is learners want to find out *a priori* returns to the theme of adult learners defining their learning outcomes for themselves. Workshop participants appear to mirror the higher education sectors' focus on the tutor facilitator as the main focus of knowledge and experience. The implication from B30's comment is that 'we need to know what they want so we can provide it'. Whilst it might appear to be semantics, I would suggest that it would be better phrased as 'we should enable adult learners to define what it is they want to learn and facilitate them to acquire such learning'. It is noticeable in participants' comments that there is an absence of the use of words such as objectives or outcomes. B31, immediately following on commented that;

Also, sometimes they don't know, so that's a problem (B31)

And it is certainly true that a degree of self-awareness and prior experience in self-directed learning is required to be able to develop for oneself meaningful learning outcomes. This is where I would draw a distinction between the learning outcomes and learning objectives, in which outcomes are evidencable and measurable, most likely through some form of self-assessment, and objectives are less formal and require no assessment. Setting objectives could be as loose as 'I want to appreciate styles in Jacobean portraiture and then reflect on that objective subsequently'. What is important here is that the responsibility of the institution is to facilitate the Individuals' self-definition of their learning objectives or outcomes rather than necessarily to mandate them.

At this point, I asked participants in Birmingham whether they could envisage using a model, such as the SOLE model, as a planning tool as well as an evaluation tool, and at what level, object level, a cabinet level, a gallery level or at an institutional level.

I think I could do it, I quite happily see the value of [the SOLE model], I don't think I could sell it to anybody higher up. That might allow people to better engage with the object, get more out of it, but it won't put more bums on seats and it won't put us on the map, so stop it. (B32)

The practical obstacles for the institutional adoption of such a learning design and evaluative approach as represented by the SOLE model are predictable. In a context in which an institution is being measured by 'bums on seats', the enhancement of the quality of the visitor experience, particularly where they self-define themselves as learners, is not measured simply because, to put it bluntly, it is not deemed important. It is not important in the context in which funding decisions are made and it is hard to define as part of the immediate visitor statistics. It is not measured because it does not have to be measured.

Which is coincidentally one of the reasons we don't do a lot of
evaluation, because if the evaluation does come back negative, all we
get is… that wasn't successful, why did you waste your time doing
that, we've got (to be) more strict on your next thing, we'll make sure
you don't waste your time on that (B32)

As indeed with higher education there is a resistance it appears, certainly amongst the rank-and-file, to evaluation data. In my higher education practice, I have supported numerous interventions based on student evaluation data on individual faculty and departments, either derived from end of module evaluations or the annual National Student Survey. However such supportive interventions are represented, they are still seen as intrusions and of questioning the professional competency of individuals (Carless, 2009). What B32's comment suggests is that avoiding negative evaluation is preferable to receiving a small proportion of constructive evaluation. This implies that, as in higher education, there is a degree of lack of trust between frontline staff and management as to how such evaluative data is to be interpreted whilst all the while constantly citing the importance and prevalence of evaluative practices in the heritage sector (Heimlich, 2015).

It could work with an object or as a kind of rounded way of
approaching a learning activity, I think my organisation certainly, we
look at evaluating the visitor experiences strategically and this has
revealed to me that we actually do quite a lot of stuff that's very
disparate … that's quite a difficult decision to make, as to how you do

that, what you get, does it meet the requirements of this funder and

that funder ... so I think it is a useful way for certain people to look at

the whole picture. (B33)

We've just started having visitor experience meetings and its quite a

broad mix of different departments, all that engage with visitors at

some level, and I think this would be a useful way of them coming

together and seeing the big picture. (B34)

In response to a question as to the level at which the model might be deployed, be it gallery, object or institutional level, comment B33 suggests that the model can be seen as providing a 'rounded way of approaching a learning activity'. The comment again is contextualised within institutional evaluation policy noting concerns as to whether or not funders can be reassured that objectives are met. Whether informing funders or colleagues across an institution, clearly there is an appetite for a more holistic view of policy and practice emerging from comments such as B34.

We are trying to contextualise things, personalise things, but you've

got to get those people through the door first hand in order to be

able to see how they react to it, assess it, so I think there's the getting

the people in that you want to get in, and then getting them to

connect with the things, with your exhibition or place. Also, in higher

education, these people are there for a certain period of time, these

people come and go, we can't do a longitudinal study usually in order

to see impact so...it's that 'assess' point, I mean, in my experience,

those people that respond, it's usually they're complaining. If people

are happy they don't tend to want to say anything and if they do they

are in the minority, so those are the two things I'm thinking about.

(B36)

The focus in comment B36 again puts the stress on visitor numbers and foot traffic. Getting people through the door is an overriding, and pragmatic, response when faced with any evaluative framework that shines a light on existing practice. I think it is interesting to note a degree of defensiveness in arguing that there is a distinct

difference in the duration with which the institutions are able to engage with the learner, suggesting that higher education has an opportunity over months or years that is not afforded to heritage institutions. Nonetheless, I would argue that just as there is a different approach taken to work based apprenticeship in accounting taught in higher education and to a seminar-based history programme, there are not insurmountable differences between the two sectors.

The last section of comment B36, is the suggestion that satisfied visitors say significantly less than the dissatisfied is difficult to falsify and certainly justifiable anecdotally. In formal education evaluation processes are frequently unavoidable, and so whatever the reluctance of the faculty to capture and consider potential criticism it occurs nonetheless. The fact that non-formal education, represented here by the heritage sector, is capable of avoiding evaluation of learning suggests that the learning enhancement priorities that have been widely adopted, or imposed, in higher education over the last two decades have yet to make their mark.

Birmingham – Working with others

Developing on the group dialogue around building on the ideas of others, I asked specifically for any examples of a concrete practice in one institution that might be learnt from, and the extent to which the idea may have predated the workshop or been prompted by participation.

> *I pinched a survey monkey that {name} does, and it's something that {name} put a survey monkey through and that's something we were associated with, and that's something that we've talked about at work, maybe getting an iPad or something to use that. We've talked about using it to give to teachers in school workshop. Just giving it to them then and there, and then we can collate the data. But maybe we can go even wider than that just with general visitors around the museum as well so that, so, yeah, I pinched that. (B13)*

What is noticeable is the participants free ranging thought association from deploying a 'survey monkey' tool, to using an iPad with teachers to capture equivalent data and then going 'even wider' to encompass the 'general visitor', all within a single

reflection. I also observed, and noted, that the participant sharing comment B13 busied themselves making some hand-written notes following this comment.

I think there are maybe two ways of looking at [the model] … one was what could be done, and the other was what can you do, sort of thing, you know? … we could do that and that was sort of held back … maybe [management] shouldn't be told about it, because we don't have any intention of doing it. (B14)

A more negative response to the same question as to what was being learned from other participants is captured by the comment B14, in which the management perspective is again represented as an obstacle. The suggestion here is that, while one might be a good idea, some things should not be taken forward for management approval. This could be either because the participant has no practical intention of carrying out the suggestion or they anticipate major institutional obstacles.

This comment elicited further reflections on institutional norms. Returning to the theme that there is an implicit danger in asking for evaluation from visitors in case the institution doesn't like what it hears, comment B15 asks quite bluntly 'do we always really want to know what people think?'. Anticipating negative evaluation, they ask;

How do you deal with something that might be negative coming out, and then actually asking the question, do we always really want to know what people think? How often do we put on programmes and things and then get annoyed by customers coming back and saying all these things? (B15)

This sentiment is immediately reinforced by the following comment B16 that suggests that;

You are responsible for the amount of effort and a hundred positives and one negative, but it's the negative that stands out. (B16)

I had hoped that there would be a more fulsome discussion in the plenary in both workshops as to the effectiveness of the world café methodology, particularly in Birmingham where a more classic approach had been adopted. I decided to forego this

question in London in part because the responses in Birmingham were less than illuminating. The question asked was the extent to which working with others in annotating a shared model proved effective. I presented the caveat that clearly this was a hypothetical given that participants had never experienced working in a similar context with any larger or smaller groups, but I had hoped there would have been some active reflection. The following three comments were shared;

No, three seemed great but if you were a four. I can imagine if you were four (B17)

Yeah, four would have been alright (B18)

One I think would have be awful (B19)

This was followed by an awkward silence. So, I broadened out the question as to the extent to which working with others had distorted or encouraged the perception that others held of their institutions or their personal practice which elicited more meaningful comments. Firstly, comment B21 suggests that the professional orientation of participants, those focused largely on school level formal education, permeated both the groups discussions and consequently their annotations;

I think because we all deal with the school side of things it kind of distorted what we were thinking about. We were thinking about school learning a lot, so that kind of distorted what we were writing, and we had to try and keep trying to come back to other learning as well. (B21)

This focus on school education prompted a suggestion (B22) that the model could be enriched by some initial orientation activity focused around the learning segment being identified, in this case the adult learner. They suggest;

I think it could almost do with … the group should start off by writing some sort of brief or bullet points in the middle to focus on, to keep focusing back on … we kept on sort of deviating and sort of going back to what we know obviously, rather than maybe thinking what

you want us to, think about sort of adult experiences within the

museum, obviously we all think about the school programmes. (B22)

This focus on school level education is clearly illustrated in comment B23 as the participants 'went back' to schools assessment as a familiar construct, in order to reinterpret the facilitation of adults' reflection, assessment and feedback.

It was funny as well because we did that not so much with this inner

bit, but the outer bit, and I think that's because we were starting find

that quite difficult, so we kept coming back to what we know,

because it's kind of like … we want people to reflect, and assess and

feedback, but it's almost like we didn't have the answers of how to do

that. How does that work? How do we get that? We can talk to a

few, but then we kind of went back to talk about schools assessment

(B23)

I spent three minutes during the Birmingham plenary at this juncture identifying the three concentric circles in the middle as being in the original model for a distinct purpose. I explained that they are actually there to represent the graduate attributes, programme outcomes and module outcomes. The model's structure is built into the higher education context so that when a faculty member is using the model to reflect on a specific module or programme, and is asked how they currently, or plan to, encourage students to reflect, they are doing it relative to those outcomes, they have already set their own expectations. I explained that the reason for not encouraging an equivalent discussion in the workshops for this research was my anticipation that participants, being from disparate organisations, might have spent three hours trying to come up with some consensus.

London: Workshop Experience

During the London workshop, I asked a slightly different question from those asked in Birmingham, namely what participants had learnt about their own institution by going through the annotation exercise. This elicited an interesting comment, once again confusing the distinction between feedback and evaluation;

It was a humbling experience, because I realised we don't do a very

good job in a couple of these stages, we do a good job in a few, but

for example we only give occasional, and I understood feedback as an

American, feedback as giving feedback to our docent guides at our

institution, how did they do with their interpretation on the site. So, I

think we've got it wrong, but it was useful for me to reflect on that

anyway and realise that we don't do a very fundamental job of

getting feedback to the interpreters (RI)

This comment was alluded to earlier in that it represented something of a distraction. It prompted the question by another participant as to what a 'docent' was and a lengthy discussion about the length of training that these individuals were provided with by this particular heritage institution. The comment is interesting, if only because the participant that offered it appears to reflect critically on the institutional provision of evaluation, they use the term feedback, of their docents whilst other participants were impressed by the level of training provided and the freedom of the volunteers to determine the focus of their interest. In response to questions about the professional status of this institution's docents, commentator RI elaborated;

They do it out of the goodness of their heart and then when they get

negative feedback it can be very hurtful but yes, they get online

reviews, and sometimes almost in real time and the brave ones check

their online reviews. (RI)

A good tour is a subjective thing, because we actually encourage

them to develop their own narrative depending on what they are

interested in, under the assumption that they are going to emote and

engage more the public if they are really interested in what they are

interested in. So, we give them way more information than they could

possibly use giving one-hour tour, but the idea is that in that idea

they are going to engage really well with the public. (RI)

I observed immediately following the workshop that this particular participant attracted some curious colleagues wanting to know more about the management of

this particular institution's volunteer programme. What is noteworthy to me is the use of the affective terminology in these responses suggesting that negative feedback can be 'hurtful' and the 'brave' check online comments. The expectation that an effective docent is going to 'emote and engage', suggests that there is recognition of the very human dimension to learning facilitation.

Discipline Language Issues

The issue of terminology, of language, was consistently raised during my workshop interactions with participants and the plenary. In my experience, this need for clarification is quite usual in workshop contexts as participants seek to ensure they fully comprehend the tools or instruments that they are expected to deal with. What was unexpected was the relative ease with which London participants, overwhelmingly non-UK-based heritage professionals, accepted the terminology of the majority of the elements. The exceptions already noted being the difference between assessment and feedback, and the confusion around a lack of a distinct evaluation element to a model that was being represented as an evaluative model. In retrospect, I think I could have done a better job of contextualising the model as a means of providing a framework for evaluation thus minimising the need on the part of participants to co-opt a given element, namely assessment, and associated directly with evaluation.

The way in which participants worked through the model, and assumed comprehension, is explained in comment B24 in which the language is described as 'quite tricky' and identified as being from the different professional context. Interestingly, this particular comment focuses on a growing appreciation of what this particular institution does or does not do. The comment is interested in identifying elements where the institution has 'already got them' and differentiating them from those where no activity can be represented. In this sense, the model is working exactly as anticipated, allowing institutional representatives to reflect on what is presented within the model and what is not.

> *I think that we found the language, as to be expected, quite tricky,*
> *given that It's coming from the adult education sector and the*
> *university sector, and I realise that but, it would have been helpful*

certainly for me to unpick things a little bit more, things like the

contextualise and personalise, they feel very similar. I think it might

have been good at the start to have unpicked some of those a bit

more within our context, and where we've already got them, because

I'm not quite sure, especially at the beginning, we're not quite sure

whether we've got them, so we were filling some of them in and then

moving on to the next one and now well actually, that's what we've

just discussed. (B24)

Following immediately from the above comment, B25 focuses in on the issue of assessment. Engagement with the model prompts the response 'I don't think we do that', which is all the more remarkable given that no element was left without annotations. Participants appeared to feel compelled to complete the model regardless of whether their activity was truly understood to fit into any particular element. This comment is of particular interest to me in that it suggests that using a combination of the SOLE model and the GLOs could provide a framework for assessing the impact of learning. Comment B25 is indicative of the heritage sectors' approach, reinforced through the annotations across all models and plenary discussion, to forgo any form of tangible assessment of learning and instead focus on evaluation. Once again, this comment conflates evaluation and feedback as being one and the same.

What's stood out for me, was that it was written in that language,

which I'm not used to, the bit, the element that stood out for me was

assessment, because I don't think we do that. Perhaps trying, with

something like this diagram, and the GLOs and so on, to assess what

the impact of learning has been. We tend to go straight to feedback.

How was it for you? Did you enjoy it? Did you think you learned

anything? It's straight into what we call evaluation or feedback and

missing that assessment theme. (B25)

At this point in the workshop in Birmingham, I explored the distinctions between feedback for learning and evaluation of the learning experience to a chorus of nodding heads suggesting that the distinction was understood but simply not incorporated into

personal practice. Having paused for reactions, the following comment (B26) was offered which suggests that the notion of assessment and feedback for learning represent a degree of formality in the visitor experience that is largely unfamiliar to heritage educators. This suggests that this individual at least was uncomfortable with the notion of adopting a non-formal approach and facilitating these facets of learning. The comment suggests that the degree of incidental learning experienced by children is valued by institutions whereas adults are expected to 'learn things'. What's significant about this comment is that the participants are drawing on work-based conversation outsides of the workshop and trying to reconcile these with the SOLE model. The final statement in comment B26 represents a deeper reflection on this individual's practice.

> *I've had a discussion with my boss, in fact, about adult's learning in museums and she thought once you reach adulthood, we don't think badly about a child who wants to come to the museum or art gallery and play, and look at things they may find interesting, and I know that you're kind of always learning things by accident, but you know, if there seems to be no learning, that you can see happening, nobody minds that at all. But when it comes to an adult, she was like, "adults are supposed to learn things, why can't we just come in and make pictures and things..." and that's an interesting conversation to have you know? That would, fit under assessment? You know, have you learned anything, you know? (B26)*

During the Birmingham workshop at this point, individuals began to discuss amongst themselves and I was called upon to interject in order to retain a degree of central focus as a plenary. In order to do this, I personalised the exchange and suggested that, as an adult visitor to their institutions, I might like them to tell me what it was I should be looking at, what I should learn, what I should go away with from this learning experience, what I should be leaving with knowing what I did not know before I arrived. I invited comment on this point which prompted comment B27;

That's a really interesting way of looking at it, from this kinda like,

and obviously it's just going to be different for each member of staff

in your organisation but if we can pick five things that an adult learns

from their visit, what would they be? Things to learn, not just what's

the best things to look at, but to learn, and then using that to guide

your adult trails or your interpretation or tours or whatever it is, you

know, having that starting point. Not this is every object what we can

say about it, or whatever it is, but here are the five things that we

would like adults to learn and then using that as a starting point.

(B27)

It is interesting to see this identification of the learner's intent as the basis for a learning scenario, the creation of an adult trail or interpretive tour; however, this still hints at the need for direct institutional facilitation. No one responded to my provocation by suggesting that it would be for me to decide what I should learn, set my own personal learning outcomes, but rather how the institution itself might define 'five things that an adult learns from their visit'. What is significant is that the processes are not synonymous with providing the learner with as much information as possible about 'every object' but rather establishing key learning facets as a starting point. In the follow-on comment, B28, the participants identified the ease with which customisation is possible in a real-time facilitated context.

I think, with the tours, we were saying, what I normally I do with

adults was, because they are all different and they all come with their

own learning objectives really, depending on what kind of group it is.

So I always start by asking what their knowledge is to start with.

Because you don't know want to tell them stuff that they already

know. (B28)

There is the suggestion here that 'learning objectives' have already been defined. Conversations immediately following the plenary session with this participant suggested that these learning objectives were rather broadly defined, and examples

offered were the fact that groups wanted to 'learn more about the house rather than the gardens'.

In response to my follow-on question, as to whether such learning 'objectives', however defined, could be later assessed, the wrestling with terminology is further evidenced by comment B29.

> *That's what I was wondering because I don't think we really assess it*
> *afterwards, there's only one session where we do that very explicitly;*
> *and its more of reflective kind of process of handling an object*
> *around and asking what people's thoughts are about that object and*
> *then we do the session, and the tour, and then afterwards we hand*
> *the object around again and ask what people's thoughts are about*
> *the object...which can be quite powerful. But we don't do that as a*
> *matter of course. (B29)*

The participant identifies the nature of the learning activity, involving object handling, as being of a 'reflective kind' but have chosen to identify this as some form of assessment 'very explicitly'. I believe the SOLE model would anticipate such object handling as being a reflective activity. Such object handling in the context of a facilitated learning session doubtless involves an exchange of facilitators' questions and the responses from the learner as part of a feedback loop. The extent to which any discernible assessment is taking place, whether ipsative and self-defined in nature or in more formal terms, is questionable.

I had anticipated that the language issues that had emerged in the Birmingham workshop would have become even more stark during the London workshop. I was somewhat surprised to see that the language used alongside the model was studied very attentively by participants as they began to annotate their model and a range of individual clarifications were sought. Nonetheless during the plenary once again the distinction between feedback and evaluation emerged and I was 'schooled' by a European heritage professional who pointed out, quite rightly, the way in which feedback was used routinely in the heritage sector, comment RC stating;

In museums in the UK they have something, kinds of feedback sheets

which are everywhere around the museum and you're supposed to fill

it out and give your feedback, so the museum world thinks of

feedback as whether the visitor gives the institution, so you may

want to take that into serious consideration (RC)

This declaration that the heritage sector identifies feedback as being the information provided by the visitor to the institution certainly mirrors much of the vernacular use of the term in higher education as well, as I have already acknowledged. I pointed out during the London workshop, in response to this comment, that certainly there are linguistic differences even within English, illustrating the distinction between assessment and evaluation in the UK-US context. I ended my comment by agreeing that language was going to be an issue in adopting the model outside of its very particular design context which was precisely what this research was looking at. This prompted a more consolatory comment which acknowledged the practical realities of how museums evaluate the visitor experience;

If I understood well, we have to reflect on how we evaluate what the

visitor has learnt not that we have to ask what they liked about their

visit? I think most museums do [make] an effort to find out what the

visitor liked about the museum or the people at the reception or the

temperature [collective chuckle], and the quality in the museum etc,

but the effect of learning is not something that we are very used to

measuring. (RD)

This comment was immediately followed by an advocacy for the more experiential dimension of the visitor experience but acknowledging that this does not constitute learning. Comment RE suggests a degree of reflection taking place on the part of the participant;

There are still a lot of museums that are not only interested in

transmitting knowledge and expecting the visitor to learn. We more

like our visitors to experience or to feel and we would not describe

that as learning. Then maybe we need a different kind of approach or

that's a different question I think. (RE)

This participant's comment might have benefited from some more affective perspectives of the GLO, but certainly from a deeper appreciation of the personal epistemological and interpersonal domains of learning. There was one explicit comment that cited the GLOs, comment RG stating;

There is something called the Generic Learning Outcomes which

breaks it down into all the things you were talking about. After that

they created the Generic Social Outcomes which have like a different

side. The Generic Learning Outcomes are more about like skills and

emotional responses and how your life is going to change, so what

are you going to do because you've been here in the future. (RG)

The final comment provided during the London workshop suggested that the model had prompted a degree of reflection on personal and institutional practice.

We struggled a bit with this model because they [elements] are

overlapping for us at times, so the fields are together, so it was very

hard to fit our activities into these fields and reminded us about us

(being) closed as well. (RH)

Echoing much of the interpretive challenges around disciplinary language and its applicability across contexts, comment RH suggests that the overlapping nature of the interpreted elements made working with the model problematic. What is significant is the way this comment ends in that it suggests that attempting to put existing practice into a newly confronted model has challenged this individual as to the degree of professional and institutional insularity is in evidence.

Interpretations of knowledge and learning

The fourth theme that had emerged from in-workshop interactions, namely the broader theme of disciplinary perspectives on epistemology, on the way in which individuals come to know, was not asked explicitly of participants in either plenary. I concluded that the discussions around the perceived ambiguities of language, notably

around reflection, assessment and feedback, has explored facets of this theme. I was also conscious of there being a danger of re-positioning myself as an outsider (Bernard, 2002b) should I launch into a defence of the terminological usage made of these terms in higher education. During the workshops that there were occasional attempts by participants to qualify my interpretations, evident in the comment, "having that starting point, not this is every object and what we can say about it, or whatever it is, but here are the five things that we would like adults to learn, and then using that as a starting point." (B27). This comment illustrates a movement from information transfer towards a learning proposition, from an instructivist model to a interpretivist one (Hooper-Greenhill, 2000).

Conclusion

To conclude the analysis, I will now summarise the four emergent themes that served to act as lenses on the data.

- Impressions of the SOLE Model and its applicability to the heritage context

Participants clearly felt able to work with the model despite any linguistic reinterpretations and possible confusion. The differences between Birmingham participants holding education specific roles compared to the more general, or ill-defined, practitioners that comprise the London workshop delegates appears to have had an impact. Interestingly, those London participants whose first language was not English appeared to have interpreted the model's descriptors more literally than those in Birmingham. The attitude to the model was broadly positive, at least for its catalytic function although the practicality of deploying it within institutions is debated.

- Reactions to workshop format, actions of sharing and of annotations

The process of being faced with an original model that defines learning in an unfamiliar way served as a means to remove participants from their existing practice and to have them revisit existing concepts. Having participants share a single model, as in the Birmingham workshops, and to contrast this with individual models in London, did not appear to have had a significant impact on the engagement with the model. Clearly there are more annotations per participant made on shared models, but this could be accounted for with a greater amount of time allowed in Birmingham compared to

London. The evidence of structural annotations, arrows and asterisk, suggests there is benefit in joint annotations. The comment from one Birmingham participant that it would be negative to be asked to complete a model alone was not substantiated by subsequent London participants. It should be noted that the London conference was extremely collegial, and a great deal of networking was clearly in progress, such that individuals were completing their single models very much aware of what others seated around them were doing, with lots of conversation and sharing of ideas.

- Disciplinary nature of language

The issue of disciplinary language, identified in my literature chapters, emerged as a key point of discussion. The evidence suggests that there is a less precise use of specific terminology in heritage education as compared to higher education. The use of the words feedback, assessment and evaluation were interpreted quite differently by heritage professionals from other workshops I have previously run. The concepts of synchronous and asynchronous learning support were also evidently not understood by many participants. Likewise, the notion of reflection as an active part of the learning process, whilst understood in its vernacular form, could not be articulated clearly into practice. Finally, the distinctions between an individual's personal and their social context was interpreted by participants as part of the broader engagement agenda and not segmented in a meaningful way. Such terminological distinctions can only be resolved through discussion, illustration and example. Heritage professional face such challenges routinely, whether dealing with community engagement challenges (Ahmad and Cummins, 2016) or working with educators from specific disciplines (Charalambous and Yerosimou, 2015).

- Interpretations of knowledge and learning

The fourth theme has less direct evidential support from which I feel able to draw conclusions. It would be inappropriate to assume that the lack of terminological consensus in any way suggests any fundamental epistemological differences. Indeed, I saw in the responses of heritage professional many of the same declared positions of academic faculty in higher education. Certainly, the sense that assessment is somehow not an integral part of the learning process is an enduring belief amongst University

staff, the first aspect of a professional role that is 'bought out' when in receipt of a research grant. I would conclude that there are more commonalities in perceptions of learning and teaching than differences between the two sectors. However, the self-defined nature of heritage as being primarily concerned with 'informal' learning or merely being in support of formal learning presents an obstacle to change. By acknowledging the heavily curated and structured nature of knowledge presentation that defines heritage collection I assert that such institutions should be defined as sites of non-formal learning, I believe its practitioners would find a great deal of collegial and scholarly support to enhance their activities.

In this chapter I have analysed the annotations provided by participants at both workshops, where appropriate identifying agreements and contrasts between models within and between workshops. I have argued that the distinct context of each workshop has impacted on the orientation of annotations. I have also identified that the language issues and disciplinary conflicts that infuse the social sciences and humanities, outlined in my literature chapters, are manifested in both the annotations and plenary discussions. In the next chapter I will discuss the two principle contributions that emerge from this research, the reorientation of heritage education for the self-directed learner away from informal to non-formal learning, and the role that a model such as the SOLE model, may serve as a catalyst for interprofessional dialogue.

Chapter 8: Discussion

This introverted focus has engendered the belief that artefactual collections are the raison d'être of museums, rather than a tool through which we learn, and teach, about heritage. (MacDonald and Alsford, 2010, p. 72)

If we can pick five things that an adult learns from their visit, what would they be? Things to learn, not just what's the best things to look at, but to learn, and then using that to guide your adult trails or your interpretation or tours or whatever it is, you know, having that starting point. (B27)

In the two previous chapters, I analysed the responses drawn both from the annotations made onto the physical models presented at both workshops along with the validation process followed through a plenary on each occasion. I adopted four emergent themes in order to support this analysis. I have argued that the personal epistemology and context of participants impacted on their engagement with the SOLE model. I have also identified that the language issues and disciplinary conflicts that infuse the social sciences and humanities, outlined in my literature chapters, are manifested in the evidence collected. In the literature chapters, I identified that the definition of the heritage learner was misplaced, being defined as an informal learner rather than as a non-formal learner, and that the curated nature of knowledge represents a clear form of curriculum.

In this discussion chapter, I will organise the findings under the two significant contributions that emerged from this research. The first significant contribution is the disruptive assertion that self-directed learning in heritage constitutes non-formal learning. In addressing this, I will answer two of my research questions, namely how heritage institutions interpret the needs of self-directed adult learners and the question of support for such learners. The second contribution is the suggestion that the SOLE model, as a learning design approach, might serve to transform concepts of informal heritage learning into non-formal heritage learning and support educators to do this. In exploring this, I will answer the third of my research questions, namely

whether there is a benefit from an interdisciplinary dialogue between educators from the higher and heritage sectors.

Heritage Education as a non-formal learning

The implications for policy and practice with respect to heritage education will be significant if a re-coding of the heritage sector as a non-formal learning provider is to occur. Whether heritage learning should be classified as non-formal learning depends on an acceptance of the validity of two statements. The first statement is that the self-directed adult learner is an intentional, rather than an incidental learner. The second statement is that heritage institutions, by organising knowledge, acquiring artefacts, cataloguing them, conserving, curating and interpreting them, represents a curriculum. I have argued that it does. Together, the intent and the deliberate nature of knowledge makes this form of learning non-formal in the light of UNESCOs definitions (2012).

I do not claim that all learning that occurs amongst all visitors is necessarily non-formal, a significant proportion of such learning is incidental or random learning acquired in pursuit of some other social pursuit. I do argue that heritage education should not be considered informal. To do so, is to suggest that such informal learners who do have intent when visiting heritage sites are either faced with unmanaged, unstructured knowledge, or that they are incapable of interpreting, or engaging with the heavily curated nature of the collections. A shared language between heritage and higher education would certainly help.

The use of educational terminology concerning the formality of learning was mostly absent from my research data; only two Birmingham annotations used the word formal, one in "Children – informal ways. Formal assessment of school workshops-teachers" (O29) and then in the context of current assessment practices; and a second as "informal sessions for e.g. Young/socially disadvantaged parents" (R25), which implies the emphasis is on social rather than educational informality. The term only appears once amongst annotations from London participants as "formal evaluation" (R64).

At the early stages of the Birmingham plenary discussion, a participant interjected;

I think a lot in part of our discussion is we are all ex-teachers so we
are quite used to stringent and clear assessment procedures and our
experience in perhaps museums is this we do not have the same kind
of reflective assessment procedures that we would recognise from
formal education. (B03)

This comment suggests that there is a distinction between engaging with schools which have 'stringent and clear assessment procedures' as opposed to 'reflective' processes seen as part of formal education. I do not suggest that this participant thought of schools as not being 'formal education', but instead it illustrates the struggle to articulate the different models of learning and their manifestations.

Even the term 'education' appears relatively infrequently, arguing in part that the language used in the models was "coming from the adult education" (B24) and a second use qualifying the difference between sectors in terms of the time in which engagement is possible "[in] higher education, these people are there for a certain period of time, [museum visitors] come and go" (B36). The London workshop featured one reference to those "working in education and public action" (RF) as being well represented amongst participants.

Even the terms learn or learning feature rarely. Occurring only twice among Birmingham annotations, 'Taught (learn a skill) workshops' (R25) and as the single word 'learn' (P29) under the *personalise* element without other contextual details.

One London participant made use of the term 'learn' during their plenary session in the context of "still a lot of museums that are not only interested in transmitting knowledge or expecting the visitor to learn, we more like our visitor to experience or to feel" (RE) as though perhaps these were deemed mutually exclusive. This comment suggests that despite the broad acceptance of the need to develop a visitor-centred experience (Samis and Michaelson, 2017) that learning remains a secondary priority. This confusion as to the purpose of the museum, manifested in the quote that begins this chapter also occurs in this input from a Birmingham participant;

if you get an adult in, whose come to visit, and they've just come in
on their own, they want to learn something, how do we find out

This striking comment, attributed to a senior manager in their institution, which stated that "adults are supposed to learn things" (B26) suggests that there is no expectation on the part of many in heritage institutions that any special provision for adults is required. Indeed, outside of the numerous specified 'special' groups and families, the individual adult is presumed to arrive already equipped.

My concern is primarily with the adult learner who visits a heritage institution with a deliberate intent to learn. Brookfield, in writing on the Infed website, outlines two essential characteristics, both political and educational, that define the SDAL. These are the ongoing "authentic control over all decisions having to do with learning" and "the ability to gain access to, and choose from, a full range of available and appropriate resources" (Brookfield, 2014). The first of his conditions talks directly to the nature of SDAL in a heritage context, the second of heritage institutions as non-formal learning institutions.

Authentic Control

The authentic control that Brookfield identifies manifests itself in decisions about the goals of a learning intent, which resources should be accessed and which learning approach works best for the individual. It also asserts that it is the individual who establishes the criteria for success. This amounts to a political statement given that this notion of authentic control puts the power for learning in the hands of the individual rather than in some central authority. This does not mean, however, that there is no role for the heritage educator or curator, quite the contrary as Horton states;

There's no such thing as just being a coordinator or facilitator, as if

you don't know anything. What the hell are you around for, if you

don't know anything. Just get out of the way and let somebody have

the space that knows something, believes something' (Horton and

Freire, 1990, p. 154)

Giving authentic control to the heritage learner could be seen as the ultimate form of engagement. In practice, as Bourdieu identified (1966) and Brookfield elaborates, individuals are frequently complicit in hegemony,

the process in ideas, structures and actions come to be seen by
people as both natural and axiomatic – as so obvious as to be beyond
question or challenge – when in fact they are constructed and
transmitted by powerful minority interests to protect the status quo
that serves these interests so well. (Brookfield, 2014)

Just as higher education students resist some of the independent learning processes, they are encouraged to follow (NUS, 2014), so the museum visitor defers or negotiates their responses to the perceived authority of the heritage professional (Longair, 2015). Personal epistemologies play an important role in any individual's approach to learning in a heritage context. How one defines the self, how one engages with learning as means of self-enhancement are instrumental in any learning intention. Candy argues for an interpretivist interpretation of SDAL stating "learning in its fullest context is a social activity, and the attainment of full personal autonomy – both in learning and outside it must recognise this interdependence" (1991, p. 22). This does not imply that all learning must be carried out with others, only that all learning occurs within a social context, of personal histories, circumstances and desires. Chapters 7 and 8 have detailed the numerous instances of annotations and plenary remarks that reference working with specific groups or communities, but it remains noticeable that there is an absence in the focus of the individual adult learner or visitor.

Access to Resources
The second defining characteristic of the SDAL is their ability to access, and select from, resources. Assuming there is an express intent to learn as a heritage visitor, effort is still required to organise when to visit and what to seek out amongst artefacts, even before deciding how best to engage with them. Despite the fact that access to a significant proportion of heritage sites in the UK remains free to the public, the reality is the heavily curated collections require space to display and resources to sustain such access. As a consequence, the over 200 million collection artefacts estimated to be in

storage in the UK in 2008, were not, and are still not, readily accessible and this figure is likely to be steadily increasing (Keene, 2008). The proportion of collection on display varies enormously, with several national institutions displaying less than 5% of their artefacts compared to regional, smaller, institutions where over 95% are on permanent display (Groskopf, 2016; Davey, 2010). Even those objects on physical display may be inaccessible to those who are unable to attend heritage sites during regular working hours, although efforts have been made to expand 'after hours' or late night opening (Barron and Leask, 2017). Since the advent of digital access via the World-Wide Web, heritage sites have significantly enhanced access to stored collections, whether through access to the institution's catalogue or bespoke websites (Parry, 2010). Access to collections also benefits from increased attention paid to spatial design and the movement of visitors through galleries and exhibits (Tzortzi, 2014).

Below is a suggestion of how Knowles's principle of self-directed adult learning manifests itself in a heritage context. All of these approaches and technologies to support the SDAL (Table 31) exist across the heritage sector, although rarely consolidated within a single institution.

Principles of Self-Directed Adult Learning Based on Knowles (Brookfield, 2014)	Optimal Manifestations of SDAL support in Heritage Contexts
Diagnosing learning needs	Online diagnostic tools before visits establishing baseline knowledge and providing potential avenues of enquiry (Kuflik et al., 2015).
Formulating learning outcomes	Online or on-site interactive tools that allow for the formulation of intended learning outcomes across cognitive, affective, psychomotor, metacognitive and interpersonal domains as appropriate.

Identifying human/material resources for learning	Personalised or group tours, interpretative guides, layered content and commentary to aid on-site navigation and artefact engagement (Tavcar et al., 2016).
Choosing and implementing appropriate learning strategies	Real-time responsive guidance based on continuous feedback (Chen et al., 2017).
Evaluating learning outcomes. (Note American use of 'evaluation')	Self-assessment instruments, personalised based on the learning outcomes.

Table 31 - Optimal manifestations of support for the Self-Directed Adult Learner

The references cited as examples of current practices reflect the sector's preoccupation with ubiquitous digital technologies and are reflected in my participants' responses citing digital means of enhancing engagement and access, although not always articulated in a digitally literate form.

There is a parallel to be drawn between the requirements for higher education to further recognise the potential value of Online Educational Resources (OER) for self-directed study (Conole, 2013; Bonk and Lee, 2017), particularly when presented as mailable artefacts (Ponti, 2014), and the need for heritage institutions to enable learners with access to the digitised versions of their collections. In acknowledging that either an institution provides access to their online catalogue of artefacts as part of their Collection Management system (CMS) or through curated webpages, the institution is managing, designing and structuring content. This access represents the same process as developing interpretation labels, audio guides or tour notes, and both represent structured content. This structuring of content defines heritage collections and their representations as a form of non-formal learning for any intentional learner.

The challenge of the research questions

The first two research questions that began this thesis, namely how heritage institutions interpret the needs of self-directed adult learners and the question of support for such learners have been examined. The needs of self-directed learners

were not responded to by my participants' annotations, a notable omission that was recognised by participants as they struggled to articulate their role in supporting such individuals, "how do we find out about [it]" (B06), or intended to separate the individual from the collective;

> *I think, with the tours, we were saying, what I normally I do with adults was because they are all different, and they all come with their own learning objectives really (emmm) depending on what kind of group it is so I always start by asking what their knowledge is to start with because you don't want to tell them stuff that they already know, and about their expertise. (B28)*

There remains a focus on the role of the facilitator rather than on the independence of the learner, an attempt to control the degree of authentic control over learning decisions as typified by this contribution,

> *if we can pick five things that an adult learns from their visit, what would they be?! Things to learn, not just what's the best things to look at, but to learn, and then using that to guide your adult trails or your interpretation or tours or whatever it is. (B27)*

The challenge for heritage educators and curators is to accept a reconceptualisation of the SDAL experience as a non-formal learning one and to adjust their provision accordingly. This requires the active engagement of all heritage professionals to support the construction of scaffolding learning engagements. One way in which heritage educators might embrace such a concept would be to explore learning design models advocated by the non-formal and formal sectors. This is the second contribution this thesis makes and which I will now explore.

SOLE Model's transformational potential

There is renewed interest in seeking synergies between heritage practice and higher education although much of this appears to be focused on either research collaborations (Boddington et al., 2017a) or on object-based learning (Chatterjee, 2008), particularly in University museum collections. The focus has been on intra-

professional exchange rather than on the visitor as a SDAL. The argument for the incompatibility of learning design approaches between heritage and higher education have been predicated on the basis that the majority of higher education codifies its learning through intended outcomes. It is argued that these are too restrictive for the informal context that heritage represents (Hooper-Greenhill, 2004). Others have criticised the heritage sector's adoption of the Generic Learning Outcomes, originating from Leicester's RCMG (Hooper-Greenhill et al., 2003), on the basis that these do not "measure actual learning because of the obvious impracticality of administering performance tests to museum visitors" (Brown, 2017, p. 30). It is argued that whilst the five generic 'categories' of questions that visitors might be exposed to do measure outcomes, in the form of reflective experiences, they do not measure learning. Brown argues that learning outcomes in higher education are frequently stated as behavioural "phrases such as 'know that…', understand…', 'be able to'" (2017, pp. 30–31) and cites Peter Clarke's articulation of 'divergent' outcomes as more constructivist in form. Brown goes on to suggest an alternative approach from the GLOs but compatible with Clark's formulation, borrowed from higher education, namely Laurillard's taxonomy of educational media (Laurillard, 2002), which he declares as a "well-established model from formal learning" (2017, p. 31). I think Brown is right to assert that the GLOs do not measure learning, but he is incorrect in asserting that ILOs in HE are written in behavioural forms, or indeed that Laurillard's categorisation of educational technology represents a taxonomy capable of formulating outcomes, rather than being descriptive and informing strategy. In my view, it is as imprecise as the GLOs. Since the revision of Bloom's taxonomy in 2001 (Anderson and Krathwohl, 2001) and other work (Atkinson, 2013b), there has been a concerted effort to articulate outcomes using active verbs that are assessable. Brown also negates, as did Hooper-Greenhill, the different domains of learning for which outcomes can be written and the assumption that outcomes are necessarily designed to be externally assessed. I believe the differentiation of the two sectors is based on a misplaced assertion that formal education is always defined by external assessment criteria.

I did not set out to examine the efficacy of the GLOs in deploying a HE learning design model, despite the fact that the model is based on the centrality of constructive

alignment and the use of ILOs across five domains of learning. However, the apparent inability of the heritage sector, represented by my participants, to reconcile the need of learners to be aware of their own learning progress, to assess or self-assess, to receive feedback and to be supported in reflection, remains a significant challenge that suggests some catalyst to integrate formal and 'informal' learning conventions. Workshop participants' statements such as, "we want people to reflect and assess and feedback, but it's almost like we didn't have the answers of how to do that" (B23) is evident of this need.

I advocate a meeting of the two sectors at an intersection, that of non-formal learning, acknowledging the intensely curated nature of the SDAL's heritage experience and taking the best of HE and professional learning's formal formulation of learning. So, my second significant contribution emerging from the research has been the inherent value of adopting a learning design model from non-formal and formal context. The evidence presented supports the assertion that the SOLE model proved effective as a means of facilitating intra-professional dialogue and as a catalyst for personal reflection. Within each workshop, the discussions about the meaning and application of the conceptual model facilitated a rich array of annotations and discourse. The model has been described by me in detail elsewhere (Atkinson, 2011b) and summarised in Chapter 4. Identifying the veracity of any learning design approach in a heritage context is challenging. I have already declared my potential bias, not the least that I assert that the SOLE model's nine elements are all required for a holistic adult learning experience. I conclude that the model itself, even without its associated learning design toolkit being made available to workshop participants, generated a range of disruptive responses. In the context of the workshops, it is unrealistic to posit Mezirow's model of transformative learning as an interpretative framework (Mezirow, 1991); however, I believe there is evidence that encounters with the model produced for several participants something of a 'disturbing dilemma'. This is illustrated through London participants' comments such as "it was actually a very good tool for reflecting on my institutional practice" (RA) ;"it's a useful tool to understand several phases of our educational process or museum process" (RB); "It was a humbling experience,

erm, because I realised we don't do a very good job in a couple of these stages" (RI);
and "made me realise just how wrong I was" (RM).

Equivalent observations were made by Birmingham workshop participants, suggesting
the more lengthy engagement allowed them to hone in on specific challenges; stating
"when we got to personalise and to reflect, assessment and feedback, we were finding
that quite hard because maybe that's what we need to work on more" (B01) and "we
don't have the same kind of reflective assessment procedures that we would recognise
from formal education" (B03). These more reflective observations suggest that length
of engagement with the model deepened its provocative impact. Certainly, the model
served to highlight the different interpretations of the SOLE model elements between
higher and heritage education contexts. These distinctions are summarised below in
Table 32.

SOLE Element	Higher Education Distinction	Heritage Interpretation based on participant data
Inform	Learning materials and knowledge acquisition support.	Printed and digital guides, maps and catalogues, materials that inform visitors what is available to see and experience.
Connect	Synchronous tutor support for learning, lectures, seminars, tutorials.	Guided tours, talks and lectures. Primacy is given to volunteer guides.
Engage	Asynchronous facilitation of learning through time-displaced interactions. Notably prevalent in online learning modes.	Audio guides often cited. Lack of evidence suggests the notion of asynchronous learning is alien given the real-world real-time nature of most visitor experiences.
Collaborate	Peer moderated learning, group activity and collegial support mechanisms regardless of the	Engagement strategies and institutional outreach. Defined community participation.

	degree of synchronicity. Work-based learning would include collegial collaborations – team-work.	Noting, in particular, the role of the differently abled.
Contextualise	Situated learning or real-world social (or professional) experiences that support the learner's ability to create connections between new learning and prior experience.	A broad appreciation of the social context of visitors but little facilitation of learner-directed contextualisation. Heritage product is customised for specific audiences.
Personalise	Building on the personal epistemology of the individual.	Recognition of the individuality of each and every visitor but little evidence to suggest visits can be personalised in advance to any degree.
Reflect	Reflection on and in-action in order to generate actionable questions on the part of the learner.	A desire to provoke and engage visitors to reflect but little-structured support for reflection in a learning context.
Assess	Supports learners to know what they have learnt whether through ipsative, diagnostic, formative or self-assessment forms as well as summative in 'for credit' contexts.	Little evidence of comprehension.
Feedback	Feedback for learning, ensuring that the learner develops metacognition and self-referencing of their own	Interpreted as evaluation, by the visitor (or colleagues) on the quality of exhibitions or visits.

	capabilities with reference to the outcomes envisaged.	

Table 32 - Different interpretations of the SOLE model elements

Accepting that the SOLE model does not represent a consensus of higher education's use of language or principles of design but is rather a singular attempt to capture such notions, the alternative perspectives represented by the heritage sector as a community of practice are insightful. They suggest that there would be significant development required to reorientate heritage educators to enable them to structure learning opportunities in a non-formal SDAL focussed way guided by the SOLE model.

In recent years, attention has turned amongst European policymakers to the emerging skill requirements of heritage professionals with van Lakerveld et al. suggesting that heritage professionals are required to differentiate between teaching about heritage and deploying heritage as an accessible learning resource. Their work includes the statement that "heritage interpretation is a structured approach to non-formal learning specialised in communicating significant ideas about a place to people on leisure." (2017, p. 20) which can, and I argue should, be applied to educational activities within heritage as well.

"All over the world, museum educators are actively engaged in their profession and in applying didactic methods or techniques" (2017, p. 3) stated van Veldhuizen in her comprehensive review of educational forms appropriate to heritage contexts. Her guidebook suggests a range of applicable activity or engagement designs appropriate to all ages, including adults. These methods are explicitly focussed on the provider rather than on the independent adult learner. Taken together, these two recent Dutch reports suggest that there is a need to develop learning design skills amongst heritage professionals, without the imposed curriculum structures of compulsory education but rather evolving from the expert interpretive skills already in place. As van Lakerveld and colleagues argue, "interpretation is a 'structured approach to facilitate learning processes', which qualifies as an educational activity" (2017, p. 20) and they go on to suggest,

Multidisciplinary training is needed to help staff look beyond the

limits of their own disciplines to seek synergy with other disciplines

and fields of work. There is a need to promote heritage in relation to

education and lifelong learning and to train staff to enable them to

provide educative and interpretative offers. (2017, p. 24)

In the UK, the current government policy to promote apprenticeships is producing a range of heritage-related schemes, most still under development, from 'Architectural Technician' and 'Conservation Technician' to 'Historic Environment Advisor' (Historic England, 2018). It is noticeable that there is no explicit provision for either heritage interpretation or educators.

The SOLE model, as a framework and toolkit for learning design, originated in part in response to the challenge of developing an existing campus-based programme as parallel distance, online, provision. This resulted in the development of a degree of blended experience for the campus-based students. The associated toolkit is flexible enough to allow designers to modify the language used to label each element although the definition of each would stand. I believe that the notion of blended learning misunderstands the nature of learning as it has always been, a blend of contact and supported learning fused with independent study (Atkinson, 2011c). There is, however, an argument for an adaptation of the SOLE model to function in support of heritage educators to more clearly articulate the meaning of *engage*, given the primacy assigned to social participation, and community perspectives to be represented. As the purpose is to put the learner at the centre of the model, the individual's role in such engagements is best represented by the *collaborate* element. The focus on the institutional perspective, rather than the individual SDAL, has clearly distorted or blurred the boundaries between to engage and collaborate. The clearest discrepancy in the interpretation of the model was in the repetition of the use of 'evaluate' as either synonymous with either to *assess* or *feedback*, often both.

The contributions made by heritage professionals during the workshops, and those commentaries received subsequently through discussions with a dozen heritage colleagues, it is apparent that certain words had significantly different connotations in the heritage sector than the higher education. Most obviously the terminology and

conceptualisation of feedback, reflection and assessment. I deemed it inappropriate for me as a non-heritage professional to impose my terminology, or indeed to re-articulate terminology, without extensive consultation across the sector. Doing so risked becoming an act of academic colonisation (Tuhiwai Smith, 2016). As a consequence I chose not to recreate a 'heritage version' of the SOLE model although would welcome opportunities in the future to explore such a project.

As clarified earlier (see Chapter 4), the focus of the learning design was the student and evaluation was principally an institutional function. The original design of the model and its associated toolkit was to provide a means of visualising the diagnostic, developmental, descriptive and evaluative nature of effective learning design. The intention was to provide a platform (Excel spreadsheet) to use as both a design and tracking tool. The original concept of the SOLE model was that it would provide a visualisation of all of the learning elements that made up for an effective student-owned learning-engagement process. Essentially serving as a 'design guide' for course developers. For the faculty responsible for designing learning this meant that in planning a programme of learning all nine elements needed to be reflected within the learning and teaching activities. When expressed through the associated tool kit this also meant that students themselves had an active planner to structure their learning engagement.

 In this context, the role of evaluation was perceived to be an 'end product' rather than a complementary element to the learning journey. However, a significant change has occurred to the SOLE model as a direct result of the research, workshops and subsequent discussion. In the light of the confusions of terminology, between the different meanings of feedback, assessment and evaluation, I thought it prudent to position 'evaluation' into the model's graphic representation in some form. Given that it would stand alone as a distinct feature of the model, there would be less opportunity to conflate its meaning with the elements. In retrospect, I believe that evaluation does have a place regardless of the context of learning design, making clear to students in higher education, and to SDAL in heritage too, that their evaluative comments and remarks are valued and are employed in further development work.
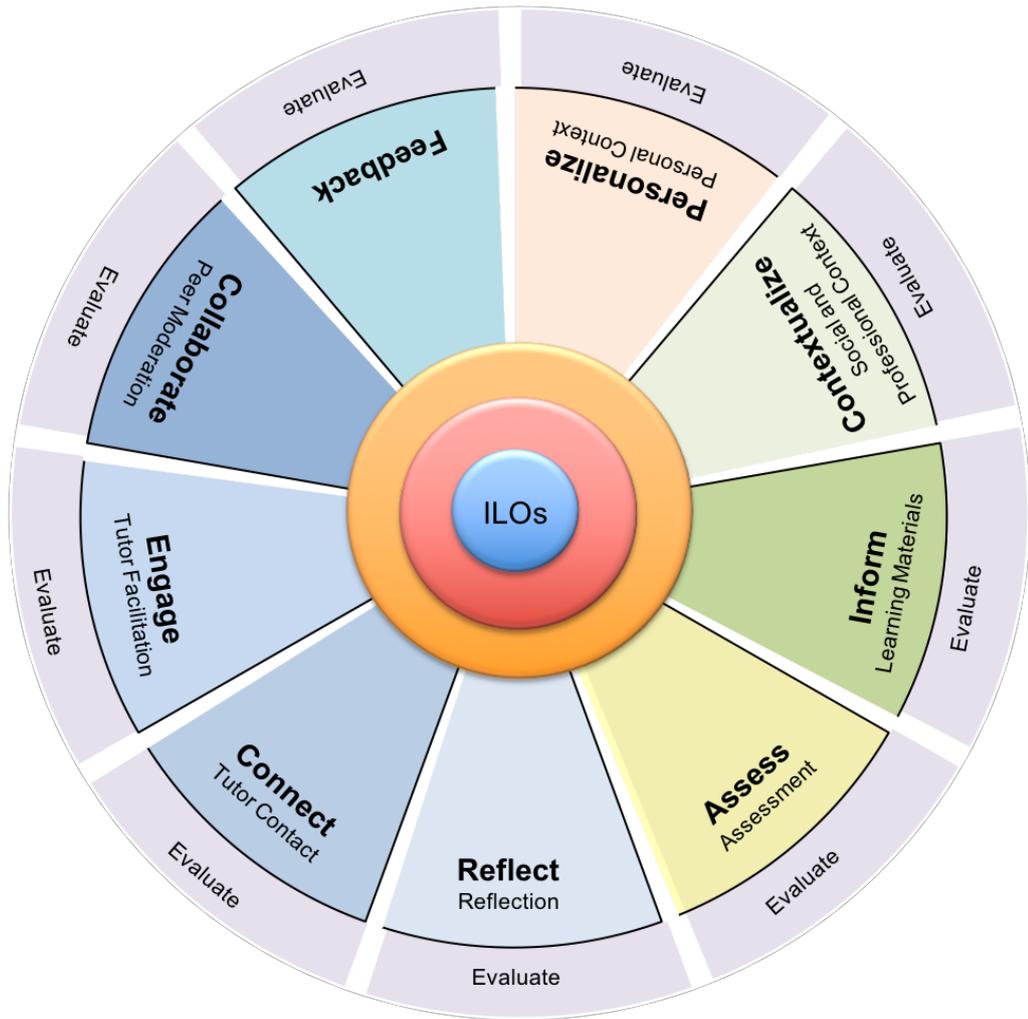
Figure 25 – Revised SOLE Model representation to include evaluation

Given the different disciplinary contexts, a good deal of clarification and explanation is likely required, depending on the context in which the model is to be deployed. In the higher education context, for example, the process of evaluating the learner experience involves eliciting evaluative reflections of the learning experience either underway or at the end of a specific course or module. This is rarely sufficient to enable faculty to enhance their modules, and so there is widespread use of peer-observations, external examiners and reflective portfolios. Evaluation is also significantly appended against each existing element rather than added as a tenth separate element. I believe this better reflects the role of evaluation as a quality enhancement activity rather than a student learning process. Interestingly, the idea of making exchange visits between heritage sites as part of an evaluative strategy was also evidenced by workshop practitioners.

The way in which the distinctions between disciplinary languages were uniformly acknowledged and openly debated also suggests that the professional workshop format was helpful. I believe what Hutchinson and Collins identified as a key strength in the use of audio guides in the heritage sector stands true of the World café and annotated model approach;

> *the evocative approach to interpretation has the capacity to draw an*
> *audience into the experiences of others in a way that supports the*
> *agency of both the material and the listener. The conventions of*
> *creative representation assume that meaning is created rather than*
> *pre-existent. They work through the senses and emotions, through*
> *play and interplay, through metaphor and image. (Hutchison and*
> *Collins, 2009, p. 96)*

The most effective way of supporting heritage educators to make effective provision for the SDAL is through an immersive discussion around specific learning models, however imperfect, in order to allow for the process of reinterpretation, reuse, and reintegration to occur.

The value of adopting a learning model, designed to facilitate an alternative approach to supporting the adult learner in non-formal and formal contexts, is evident.

Conclusion

In this chapter, I have discussed the justification for my assertion that SDALs in heritage are engaged in a form of non-formal learning rather than informal learning; that the 'casual' learner should be more accurately classified as an 'incidental' learner. This reclassification is significant in that it assigns a degree of responsibility for supporting the SDAL on the heritage institution itself, rather the assuming the SDAL comes to their learning fully able to take advantage of the heavily curated collections.

I have also justified my assertion that the interpretation of the SOLE model, and indeed by implication many other educational models or frameworks drawn from across educational practice, might provide an effective catalyst for the development of a shared lexicon or at least a translator's guide. I believe that the use of the SOLE model

has demonstrated its ability to prompt personal reflections and the questioning of institutional practices.

In the final chapter, my conclusion, I will summarise the arguments made in this research and the manner in which the research questions have been answered. I will also examine emergent practices, articulate potential future changes in heritage education and suggest avenues for future research.

Chapter 9: Conclusion

I would pick up on a concept that might emerge of 'learning light',
because I'd say museums and galleries are about learning deep. We
cannot possibly chart the range of interactive experiences, learning
experiences, and we know some of it is emotional. Some of it is to do
with people's family, some of it is to do with people's connections,
some of it is cultural. I think the purpose for me is the interaction
around knowledge. I'd be keen to say that this learning that is pretty
deep. Sandy Nairne, Director, National Portrait Gallery 2002-2015
(Museums Journal, 2007, p. 22),

maybe we should be thinking more about what the learners want,
but then we've moved to have conversation with the learners to find
out what they want, so we'd need to do this first (pointing to the
model) to inform that bit? (B30)

The title of this thesis is *Recoding Heritage Sites as Non-Formal Learning Institutions:
enabling the self-directed learner*. In the previous chapter, I discussed the two
contributions that this research has produced, a rationale for recoding heritage
education for the intentional SDAL as non-formal learning and advocated for the
benefits of sharing conceptual models of learning between educational sectors. I have
drawn on literature and data provided by workshop participants to justify these
assertions.

In this conclusion, I will identify where, and to what extent, my original questions have
been answered, briefly summarise the workshop data, and the revised exploration of
the literature it prompted, that led to the assertion that intentional heritage learning
by SDAL should be conceived of as non-formal learning, and that there is value in a
dialogue between higher and heritage education, facilitated through use of
instruments such as the SOLE model. I will then detail recent shifts in professional
practice in heritage education and suggest future changes that would advance the
position, before making suggestions as to fruitful possibilities for future research. I will
conclude with a final reflection.

Research Questions

1. How do heritage institutions interpret the needs of self-directed adult learners?
2. What support do self-direct adult learners need and are these being met by heritage sites?
3. Is there a benefit from interdisciplinary dialogue between educators from the higher and heritage sectors

The first of these has been answered by both the lack of surfacing the specific identities or clearly articulated needs of self-directed adult learners beyond the institutionally defined nature of the adult visitor as independent learner. This is particularly evident in the post-workshop professional conversations (see above p. 161). There is evidence that institutions' interpretations of need is based on a self-generated definition rather than any sector-standard articulation or any theory based descriptor. As a consequence, in answering the second of my research questions, most institutions regard themselves as meeting most of the needs of their previously self-defined SDAL population. The support is provided overwhelmingly in the form of structured and facilitated encounters, talk, tours, and lectures and so on. Heritage sites carry out a huge amount of public engagement activities and there is plenty for the curious visitor to explore. There is significant evidence for this within both the annotations provided during both workshops and through the subsequent professional conversations. There remains no evidence that there is support to enable the SDAL to articulate their own learning outcomes or establish any personal assessment criteria. I conclude that the responses to the first two research questions are clearly positive, if we adopt the current loose colloquial conceptualisation of SDAL in the heritage sector, and negative if we adopt UNESCO's definition of non-formal, informal and incidental learning as a framework. This leads me to conclude that in answering the third of my research questions there is also clearly a benefit for greater dialogue between the sectors; between the conventional 'informal' heritage sector and the 'formal' higher education sector there is a wealth of opportunity to redefine SDAL In the non-formal space that lies between us.

Heritage as Non-Formal Learning

I have argued that heritage collections represent curated knowledge. That such organisational and deliberate manifestation of knowledge, when engaged with by an intentional SDAL, as defined by UNESCO (2012) makes such experience a non-formal learning encounter. I have reasoned, in contrast, that the non-intentional learner should be classified as an unintentional learner. Both the literature and my research data suggest that individual heritage educators' willingness to support SDALs is undermined by a dominant professional narrative that identifies adult learners in terms of informal learning and institutions as being primarily guardians of heritage.

The 2017 Mendoza Report reflects the dominant discourse in the sector and the inherent contradiction in existing practices. A summary of the responses from 1500 individuals that were asked about their beliefs in the role of museums and galleries in England states;

> *Respondents to multiple response questions were clear about the range of benefits museums and galleries can offer to society, with a notable majority of respondents (85%) proposing that museums and galleries are primarily places for education and learning. A number of respondents also identify museums and art galleries as places to be enjoyed (35%) and as places to enthuse and inspire debate and creativity (32%). Respondents recognised the core function of museums and galleries to collect, preserve and display collections (42%), and identified the role that museums and galleries play in preserving and celebrating cultural identity and heritage (28%).*
>
> *(2017, p. 99)*

I think it is significant the Mendoza reasserts the notion that the 'core function' of heritage venues remains to 'collect, preserve and display collections'. This despite, as I have already demonstrated, the ICOM definition of the purpose, the 'why', rather than the 'what' and 'how' of the museum, is "for the purposes of education, study and enjoyment." My assertion is that there is a direct parallel between heritage and higher education's self-perception that needs to be clearly articulated.

	ICOM Definition (icom.museum)	My definition of Higher Education
Why	for the purposes of education, study and enjoyment.	in order to educate and validate learning
How	which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment	which acquires, conserves, researches, communicates, and undertakes scholarship and research
What	A museum is a non-profit, permanent institution in the service of society and its development, open to the public,	An institution in the service of society and its development

Table 33 – Restructuring existing ICOM's definition of the museum alongside a definition of Higher Education

There is a healthy debate to be had about the nature of higher education, of the distinctions to be drawn between research centres, teaching only institutions and work-based facilitated professional apprenticeships, for example (Willetts, 2017). Just as there remains a diminishing proportion of academics in higher education who perceive their singular focus as being their research and teaching as an inconvenience (Trowler et al., 2014), there is an equivalent change occurring within museums. As Senior Research Curator at Tate Research Centre in Asia, Sook-Kyung Lee stated in a recent blog post:

Traditionally, curators have been specialists who conduct original research to acquire and study artworks for museum collections, and to select such works for exhibitions. But as the role of the art museum expands from an institution of guardianship and representation to a site of exchange and experiment, curators are now part of a larger and more complex network of art production and dissemination, raising questions about existing values and long-accepted ways of operation. (2018)

This perceptual shift from the focus on the what we do to why we do it is potentially profound. As workshop participant B05 articulates, this process of moving from the what to the how is a challenge,

> *they want to learn something, how do we find out about [it], that's*
> *the thing, we've got all the information that we do provide, to point*
> *them in the right direction, but then how do we find out afterwards*
> *what they've learnt? (B05)*

Answering this participant's question brings me to my second contribution, that made by higher educational learning design models to facilitating the SDAL in this non-formal heritage learning context.

Conceptual models of learning across educational sectors

The question as to the similarities and difference between the heritage and heritage sectors is pertinent. How wide is the chasm between their respective practices? An objection raised by a research participant and repeated through various interactions I have had with heritage professionals, is that "in higher education, these people are there for a certain period of time, these people come and go, we can't do a longitudinal study usually in order to see impact so…"(B36). Learning design does not require engagement with learning providers over a protracted time period to be effective. This fact has been illustrated through successful MOOC design and efforts to validate learning in non-formal contexts (Witthaus et al., 2016). The SOLE model, as with other higher education originating learning design models, can be used in the context of a single learning encounter or adopt a thematic or time-based approach, there is no implicit restriction.

A second objection, that learning in the formal sector is intricately involved in the validation of learning through credits and awards is equally easily answered. This research has not sought to identify a solution to this challenge, but I believe that structures such as the 'Learning Outside the Classroom' badges structure (www.lotc.org.uk) and digital badges are serving to bridge the divide between formal and non-formal validation. Indeed, a recent European Union Erasmus+ funded project 'Badges' is designed to develop a framework precisely to identify methods of

validating learning acquired during heritage visits. As Focquet and Tilkin blog however, "not all target groups need validation, not all 'cultural visitors' want validation. People should have the possibility to opt in or out" (2018). The choice to seek validation fits the definition of the self-directed adult learner.

There remains a need to continuously explore, confront and revise the disciplinary nature of language and the interpretation of knowledge and learning. I did not initially intend to venture into the field of interdisciplinary research. I believed that heritage educators were cut from the same cloth as I was. Both educators. In reading outside my discipline, however, I have reflected back on this research and drawn some intriguing perspectives from geography. The interdisciplinarity of geography is between its human and physical dimensions in which, like education, certain key words are used to describe concepts with possible alternative interpretations. As Bracken and Oughton identify,

> *Recognized differences between discipline-based experts that can*
> *produce problems for interdisciplinary research include: fundamental*
> *differences in epistemologies, knowledges and methods; different*
> *ways of formulating research questions; differences in*
> *communication (oral and written); and a range of attitudes across*
> *disciplines. (2006, p. 372)*

I think this is a useful frame of reference for us, as different aspects of the adult educational provision, as non-formal heritage and the formal higher education practitioners, to explore a common lexicon (Gal and Irvine, 1995). Both sectors are required to continuously review their function, purpose and intentions, revitalising institutional and sectoral definitions as they do so.

This thesis demonstrates that there is a disconnect between a desire to provide learning opportunities for all visitors and the comprehension of the distinctive requirements of the self-directed adult learner. Its original contribution to the field has been in exploring this recoding through the use of a unique learning model, explored in partnership with heritage educators, in a modified World Café workshop format. Whatever its possible flaws as a learning design model, it has proved a provocative

catalyst for professional reflection despite, and possibly because of, its direct applicability to its new context required mediation and explanation. A wide range of activities were captured, not all directly learning related, but certainly representing the huge diversity of learning activities carried out across institutions, from mother and toddler groups, and under 5s trails to 'third age' and seniors' groups. Indeed, I am convinced that by encouraging workshop participants to paint a rich and colourful picture of their institutional practice, the absence of explicit facilitation of the self-directed adult learner emerges as a rich field of future practice.

The World Café workshop approach itself is supported through the academic literature (Brown and Isaacs, 2005; Steier et al., 2015), although the majority of this appears to be based in primary care and social work contexts (Fouché and Light, 2011; MacFarlane et al., 2017), with some uses made in organisational development work (Gill et al., 2016). The relatively novel configuration of the workshop approach means that it is less well documented in the academic literature than others. A published use of a World Café methodology in a heritage context was the subject of doctoral research by Canadian Jacquline Faye Gilson (2015) although her thesis *An exploration into inspiration in heritage interpretation through a virtual World Café* suggests a different model of implementation from my own. Gilson's inclusion of the conative domain (prompts to action and response) alongside the affective and cognitive differs from my previous practice but one I now intend to explore further. My study of annotations can be seen as an extension of ethnographic research, as a form of the ethnography of communication (Kaplan-Weinger and Ullman, 2015; Saville-Troike, 2003).

Emergent practices

The ongoing debate about 'The Future of Heritage', typified by the address by Dame Helen Ghosh, then Director General of the National Trust, at Oxford University's series of the same title, spans a wide range of current and future anticipated needs, from more research, more higher education collaboration and technology investment (Ghosh, 2017). As society changes, social norms and communicative practices evolve over time, pressurised by the demands of its customers' needs to be reconciled with pragmatic reality. This is as true in higher education as it is in heritage. As Dame Helen

suggests, the ability to embrace the dynamic future requires effective partnerships. Such partnerships include working with academic researchers, whether at the more philosophical or practical ends of the spectrum, notably in more robust research and exploration of alternative research approaches. Partnerships in heritage practice have also come to mean an ever-broader range of stakeholder groups, not just the designated or named representative of a target community, but widespread consultation between and across distinct communities (Samis and Michaelson, 2017). This involves choices, some made in response to demographic needs (e.g. a large local of recently arrived Somalian refugees rather than a smaller settled Vietnamese community), perceived social priorities (e.g. autism work with children rather than those with dementia) and the practicalities of funding, staffing and managing activities.

The need for research, alongside theory, as a perspective on heritage practice is a current focus for Hohenstein and Moussouri (2018), who argue that in responding to the diverse demands for social relevance put upon heritage institutions, understanding the who, what and why of the visitor experience has become more important than ever. They certainly expand the relatively narrow cognitive and social constructivist theoretical underpinnings of Hein (1998), and Falk and Dierking (1992), and strengthen the focus on the affective domain of learning tentatively expressed through Hooper-Greenhill's and others' (including the aforementioned Moussouri) later work on the Generic Learning Outcomes (Hooper-Greenhill et al., 2003). Hohenstein and Moussouri do not venture into the full scope of learning outcomes that could be presented as opportunities to learners. There is only one reference to metacognition and one to interpersonal learning (this presented in defining Vygotskyian theories). There are no references to psychomotor skills development. It is true that this substantial contribution to museum learning does not present itself as a guide to practice, rather as a reflection on practice, positioning itself on the side of the practitioner, but it does not go as far as proposing changes to future practice in heritage education. Recent attempts to redefine 'for learners of all types' through non-domain specific learning objectives is a move in a positive direction (Boddington et al., 2017b).

Future changes in heritage education

Professional definitions evolve over time. The advent of ubiquitous hand-held communication technologies and accompanying WIFI access has had, and continues to have, a significant impact on higher education, altering internal working practices (Englund et al., 2017), and demonstrating an enduring capacity to reflect and anticipate change (Conole, 2017). Similar changes are observable in the heritage sector too, changes to physical access require a reconceptualisation of what is regarded as a heritage site;

> *What constitutes the past – and how we imagine the future – is*
> *continually changing. Heritage no longer just refers to castles and*
> *dungeons; instead, the term now includes anywhere that has*
> *meaning for inhabitants and visitors, from city parks to the streets of*
> *Soho. (Hooper-Greenhill et al., 2003)*

Changes in social communication practices force adaptations on the part of education providers regardless of the sector in which they work. Just as e-Learning in higher education has challenged many of the conventions that had existed for centuries in a matter of just over two decades, heritage education is transforming. I believe this research supports the notion that now is the right time for an inclusive debate about the semantics between formal, non-formal and informal education. Not because such a debate holds significant intellectual curiosity for many, but for its implications to heritage educations policy and practice. Heritage institutions and sites are precisely that, institutions and sites; buildings, visitor centres, venues of all sizes and descriptions. There is order and structure to collections, heritage pathways, displays and exhibitions, a formally defined 'direction' to follow, or at the very least a rationale (however obscure) to the presentation of artefacts. The notion that SDALs when visiting a heritage venue are in any sense informal learners appears to me to be non-sequitur. I count myself amongst the very many 'informal' visitors to these museums and galleries when accessing a fine coffee shop, but once I have embarked on an exploration of any facet of the collection I am now in a non-formal learning environment, actively engaged in the pursuit of explicit answers to be formed by questions as befits a 'self-directed' learner. Once heritage institutions discard the

notion that they are sites of informal learning, they can cultivate more meaningfully the motivations and intent of adult visitors as self-directed learners. I would venture to suggest that we might begin by agreeing to differentiate between the non-formal intentional learner and the casual visitor, who may transpire to be an incidental learner. Currently, segmentation does not distinguish the self-directed adult learner. Processes use a variety of different frameworks, from generic demographic data such as ACORN (acorn.caci.co.uk) to sector specific formulations, most noticeably those generated by Morris Hargreaves McIntyre (MHM Ltd, 2007b, 2007a).

As heritage institutions explore their social relevance in a post-analogue world, many find relevance in aligning themselves to professional perspectives. This proves relatively straightforward if the institution is a university museum specialising in natural History and aligning oneself to zoologist and biologists, or an ethnographic collection aligning neatly with social anthropologists. This proves more difficult outside of the context of higher education, although individual exhibitions (such as the Museum of London's previously cited Fire! Fire! exhibition) go some way to representing contemporary professional demands set against an historical perspective. This is where good practice in higher education, though far from universally adopted, could prove useful to heritage educators. The broadening of the higher education curriculum to incorporate a wider range of skills and abilities beyond a command of a specific discipline continues to evolve. Largely in response to government policy and the demands of employers, the curriculum is increasingly expected to reflect more than the intellectual (cognitive domain) skills regarded as pre-requisites for graduate employment. There is an anticipation that graduates also have strong commercial and social values (affective domain), technical and computing skills (psychomotor domain), a degree of self-awareness and ability to keep learning (meta-cognitive domain) and a whole range of cultural awareness, negotiating, team-work and expressive capabilities (inter-personal domain) in addition. Such elaborations of the domains are available, structured in such a way as to provide active verbs for well-structured ILOs and associated evidence or practice to illustrate their achievement. These could be presented to visitors as a menu of options from which they select a personally

significant series of options. Well-formed ILOs should be structured in such a way as to be explicit in intention but flexible enough to allow variations in context.

There is always something somewhat disconcerting when during the fieldwork for any research manuscript, whether a journal article, conference presentation or, in this case, a thesis, to uncover a publication in the middle of a research project that appears to directly address many of the questions on which one's research is based. In my case such a publication could have been *Research informing the practice of museum educators: diverse audiences, challenging topics, and reflective practice* (Anderson et al., 2015) . I imagined that, given its denotation of 'diverse audiences' in the title, that there would be significant emphasis placed on adult learning, whether self-directed or otherwise. In practice, the volume is a re-presentation of the practical reality faced by heritage educators every day, that they will be judged by 'bums on seats' or 'through-put', measurable outcomes in one form or another and is focused largely on the education of children, families and 'young adults'. Equally disconcerting are those publications that appear during the course of writing up one's thesis that could, certainly in their title, suggest there is a risk that in reading them a major rewrite might be in the offing. In my case this could have been Carrie Winstanley's reappraisal (2018) of Dewey's 'continuity and interaction', although, once again, in practice this piece focuses nearly entirely on children's education.

Future Research

There are at least three potential contexts in which to extend this current research; these are the deployment of the SOLE model and toolkit itself as a learning design tool with heritage educators; the second is the revision of the GLOs to create a menu of ILOs from which the SDAL might build their learning engagement around; and the third is to explore the definitional changes in heritage policy and practices resulting in the recognition of the sectors' proper positioning as both a non-formal and incidental learning provider.

The first potential research thread is for individual heritage institutions to make use of the SOLE model, and its associated toolkit, to support their planning and development of learning provision for self-directed adult visitors. As the model has evolved with use,

the toolkit would undoubtedly require some further continuous modifications to adapt to context. What would be particularly interesting would be to see how the model might work effectively at the levels of individual objects, display cases, exhibitions and collections. Notwithstanding the reference previously made to the issues of different languages making use of similar, but different, words to capture concepts, the individual elements represented in the model withstand scrutiny and simply require linguistic clarification. This means that such research could be carried out internationally and at any heritage site regardless of its mission or the nature of its collection.

The second fruitful direction of research that emerges from my studies is the opportunity to revisit the seminal work undertaken by Hooper-Greenhill and colleagues at the RCMG in the early 2000s in developing the Generic Learning Outcomes. I have no reason to question the claim made on the RCMGs website that the GLOs have

> *revolutionised the way in which visitors' experiences are understood*
> *by providing practitioners, government and funders with a*
> *meaningful way to describe and evidence the impact of museum*
> *experiences on visitors and to report on these collectively.*

I do, however, question how these broad objectives represent learning outcomes in a way that they are understood in the broader educational literature. I accept that there is a different set of opportunities and constraints faced by the non-formal educational world in which heritage institutions, in the main, operate. Yet, this world without credit awards and certification does not prohibit the intention to formulate outcomes that are measurable through some form of assessment, self or otherwise. The GLOs are 'generic' in so far as they are intended to apply to all heritage contexts rather than being institutional specific, they do not constitute learning outcomes simply because they do not claim to make any attempt to measure the outcome of learning but rather seek just evidence of learning having occurred (Brown, 2017). They certainly represent a framework for educators to contemplate what their intentions are, but they do not represent, as currently configured, measurable outcomes. At about the same time that the RCMG produced their project reports, the language of learning outcomes was

evolving in the UK academic literature, from behaviourist language using the notion of objectives towards a more constructivist use of the word outcomes. Meanwhile, in the US, still using the language of 'educational objectives', the field of taxonomies for active verb construction developed significantly, largely through the work of Anderson and Krathwohl with colleagues (Anderson and Krathwohl, 2001). They deployed new language to add a sense of purpose to the learning activities in which students engaged by renaming top-level taxonomic terms, moving from passive notions of, for example, the 'application' of knowledge to the more active 'to apply'. They also extended the verb descriptors beneath this top-level taxonomy, interestingly reverting to a passive verb. They also focussed entirely on Bloom's original cognitive domain. The failure of higher education's course designers to reflect the breadth of learning through inconsistent and often imprecise formulations of Intended Learning Outcomes (ILOs) is something I have already published about and do not propose to re-litigate (Atkinson, 2015). I would however, like to advocate an open dialogue, between those of us in higher education who value the positive role the ILOs can have when well designed, with peers in heritage education wanting to extend their use of the GLOs.

This leads to the third opportunity for practical empirical research to advance heritage educational practice further. Once it is acknowledged that there is a distinction between the adult informal visitor and the non-formal learner we need collectively to establish how best to service both communities. This distinction is potentially subtle but relies on the intention of the learner. An individual who is in a position to articulate learning intention before visiting a collection is a non-formal learner, as opposed to the visitor who states they have learnt something they had not intended to after their visit, who is an incidental learner. Institutions, on the whole, appear to serve the well-educated non-formal learner who enters a heritage space equipped with a reservoir of cultural capital to draw on. Many provide catalogues for purchase at the entrance and detailed audio-guides with options and layered content. For other adult learners, well-educated though with modest cultural capital, but with the intention to acquire any range of insights from a given collection furnished through this non-formal learning space, support is less apparent.

The first opportunity missed is to enable SDAL to formulate some learning outcomes. To know whether I have made meaning out of the experience, I require some intent. As explored earlier (see Chapter 2), being self-directed does not mean one is totally without support and direction, only that one has control over the support one seeks. So, it might be as simple as exhibition designers displaying three key questions about the collection on the way in to a gallery or exhibition and providing three possible answers or reflections (as opportunities for self-assessment) on the way out. For example, as I walk into the Vale and Downland Museum in Wantage, Oxfordshire, I might be faced with a question amongst two others, displayed on a large poster, stating:

King Alfred was born here in Wantage in 849 CE, where do you think
he went, aged just 4 years old?

And, as I leave the small collection later, on the back of the exit why not display an answer, one that might invite me to come back and explore further, such as:

In 853, at the tender age of four, King Alfred went to Rome to see
Pope Leo IV. Contrary to folklore he was not anointed during this
visit. He earned his historic reputation from intellect rather than
brawn. Is that the impression you got from your visit today?

I make these suggestions with complete humility and respect for the heritage professionals who work with minimal resources and increasingly onerous targets. But it occurs to me that such activities as these create a reason on the part of all informal visitors to become non-formal learners. Once I am prompted to question I can be invited to explore collections with outcomes in mind. I could be offered an audio-trail, paper guide or interpretive experiences that relate directly to the five educational domains detailed above. In addition to the intellectual skills at the lower end of the taxonomy focussed primarily on knowledge content, I might want to identify that I choose to explore collections from an affective, values perspective. In the case of King Alfred, such interpretation might focus on his less than robust constitution (how do you imagine he would be judged by his peers?), his diplomatic skills (do you think Alfred would have pursued peace had his armies lost at Wilton in May 871?).

Alternatively, I may want to explore collections in a psychomotor mode and do some experimental archaeology mimicking the glazing process used in creating 'Alfred's Jewel' (most probably the end of a head of a "æstels" or pointer for reading) and in the process learn more about calligraphy, scribes and literacy in the 9th century.

Final Reflections

As an undergraduate writing my dissertation on post-holocaust theology, I came across the notion of a 'rupture in language' experienced by the survivors of the Shoah as they struggled to reconcile faith and experience. Ever since, the power of language, of inter-personal communication, has been a recurring theme in my academic scholarship and my personal reflections. In examining this very different context, it emerges that there is here too a rupture in terminological comprehension, both within the disciplines of higher and heritage education, and between them. The casual use of vernacular terminology or everyday definitions undermines meaningful discussions of more profound and important practices. Whether we choose to adopt an historical perspective such as Foucault's, who argued that language is used to control and manage the populaces' approaches to societal themes, naming the normal and the deviant (Foucault, 1978) or a sociological view such as Bourdieu's suggestion that every linguistic utterance is underpinned by the traces of the social structures that it seeks to describe and in doing so, perpetuates (Bourdieu, 2003), the power of language is surely not in doubt. Even if we chose to lessen the importance of the spoken word and instead privilege its written form after Derrida, the practical implications remain, words matter (Derrida, 1967).

This thesis sought to question self-directed adult learning provision in heritage institutions, adopting a higher education learning design model to serve as a barium meal. In using an original workshop based, annotated model, approach, I have sought to answer questions as to the applicability and constructive nature of such a model across inter-professional boundaries. I conclude that it is entirely appropriate and effective, given the proviso that linguistic differences require clarification and elaboration. I also set out to find out how effective this particular, SOLE, model might be in evaluating the opportunities for learning provided by heritage institutions and I believe the evidence suggests it proved a positive catalyst for reflection and debate to

this end. There is, undoubtedly, a huge amount of diverse activity taking place in heritage institutions. No-one can be accused of being complacent or idle. However, the frequent inability on the part of research participants to define explicitly their actions in support of adult learners, rather than the broader category of visitor, remains a cause of concern and reflection.

This research has contributed to this debate by illustrating the failures on the part of both higher and heritage education in the enduring uses of ambiguous terminology, in its disciplinary and vernacular forms. Education stands at the intersection of the social sciences, sociology, anthropology, psychology, even political science and economics. Heritage studies likewise is manifestly interdisciplinary, incorporating the language of history, arts and performance alongside its social science perspectives. Both disciplines make contributions to social work and are enriched by computer science. Language as a consequence is critical to the expression of ideas and concepts, the declared disciplinary bias, often missing in much scholarship, I deem critical.

My research has sought to advocate positive solutions to the identity challenges that lay ahead and the needs of the SDAL in non-formal heritage contexts. In recoding heritage as a non-formal learning space, professionals are free to explore learning models from other sectors including higher education. Making use of original models as catalysts to fuel the ongoing inter-professional dialogue, both sectors, heritage and higher education, will benefit. Not only to ensure that we are able to communicate effectively between ourselves but so that we might facilitate the self-directed learner through non-formal learning enquiry. I think it appropriate to end this thesis by giving a voice to a workshop participant who said;

> *…maybe we should be thinking more about what the learners want.*
> *But then we'd have to have a conversation with the learners to find*
> *out what they want… (B30).*

I hope to be part of this ongoing conversation.

Appendices

Note that the project title was specified in the ethics application (13133-spa17-museumstudies) and so was unedited. However, the advertising for participants and the content of the participation information clearly stated the focus on exploring the applicability of a higher education learning design model in a heritage context.

Appendix 1

Facsimile of Participant Information Sheets for Birmingham Workshop

Information Sheet for Workshop Participants – Birmingham

Project Title: Evaluating the educational opportunities afforded by heritage spaces for self-directed learners.

Contact Address: Simon Paul Atkinson
                     15 Winsmore Lane, Abingdon, OX14 5BY
                     Email: spa17@le.ac.uk
                     Mobile: 07890-752-366

Date: 6th September 2017

Dear Colleague,

I am very grateful that you are willing to take the time to consider participation in my research project '*Evaluating the educational opportunities afforded by heritage spaces for self-directed learners'*. I would like to take this opportunity to tell you more about the nature of the project, who I am and why I am undertaking this research, and how you were selected for the project. I would also like to inform you about how the data you supply to me will be used and the protections of your privacy and confidentiality that are in place.

Who is doing the survey?

My name is Simon Atkinson and I am currently a self-funded distance learning postgraduate researcher in the School of Museum at the University of Leicester, UK. I am also the full-time Associate Dean of Learning and Teaching for BPP University, a private provider of professional degrees with degree awarding powers granted by the UK Privy Council and quality audited by the *Quality Assurance Agency* for Higher Education (*QAA*). I have 20 years postgraduate professional educational experience in the UK and New Zealand, including working as the Director of Learning and Teaching at the College of Education, Massey University (2008-2010), and the Head of the Centre for Learning Development, University of Hull (2003-2008). I have managed and supervised several multi-party research projects as part of EU Socrates and Leonardo initiatives and teach action-research modules on the Postgraduate Certificate in Professional Higher Education that I currently lead.

What is the research for?

My doctoral research builds on my professional engagement as an educator. This research is grounded in work as an action researcher in my professional context over the last 20 years where I have often been concerned with the design of learning for self-directed study by adults. This doctoral research will investigate to the extent to which a higher education learning design processes might help to support existing and future effective learning opportunities for adult visitors to museums. It asks what support is currently available for the self-directed adult learner in heritage institutions and how effective the existing conceptual models of learning taxonomies might be to support designing and evaluating self-directed adult learning.

How you were selected?

You have been identified as an ideal person to support this research because you have been involved with a heritage institution that seeks to address the needs of self-directed adult learners.

Your role as a Workshop participant

I would appreciate your participation in this four hour evaluation workshop (including an hour for lunch) here.

There will be a possibility of follow-up interviews that can be done either online in Adobe Connect (full details will be provided) or in person at a time and location that suits you. If you would like to do the interview online you will need a webcam and suitable microphone but no special software is necessary as everything runs in a standard web browser.

Your rights

Your participation in this research is entirely voluntary and you are free to withdraw from the project at any point, although ideally if you do to withdraw you will be able to notify me before the 1st February 2018 as the final thesis I hope will be submitted in April 2018. If you are uncertain or uncomfortable about any aspect of your participation, please contact me at the email address at top of this letter to discuss your concerns or request clarification on any aspect of the study.

Protecting your confidentiality

Any information you supply will be treated confidentially. The default position will be to anonymise all respondents' data and to use aggregated data in the final analysis and subsequent publication. You will be asked prior to any publication or submission to approve any identifying quotes or facts pertaining to your institutional engagement. All audio and video recordings of interviews, transcripts and documentation shared by you will be encrypted for protection, for digital artefacts, or under lock and key for physical materials and all data will be managed in accordance with the 1998 Data Protection Act.

If you have any questions about the ethical conduct of the research please contact the School Research Ethics Officer, Dr Giasemi Vavoula, on gv18@le.ac.uk.

Thank you very much for participating,

With best wishes,

Simon Paul Atkinson

Appendix 2

Facsimile of Participant Information Sheets for London Workshop

Information Sheet for Workshop Participants – Relevance 2017

Project Title: **Evaluating the educational opportunities afforded by heritage spaces for self-directed learners.**

Contact Address:
Simon Paul Atkinson
15 Winsmore Lane, Abingdon, OX14 5BY
Email: spa17@le.ac.uk
Mobile: 07890-752-366

Date: Sunday 15th October 2017

Dear Colleague,

I am very grateful that you are willing to take the time to consider participation in my research project '*Evaluating the educational opportunities afforded by heritage spaces for self-directed learners'*. I would like to take this opportunity to tell you more about the nature of the project, who I am and why I am undertaking this research, and how you were selected for the project. I would also like to inform you about how the data you supply to me will be used and the protections of your privacy and confidentiality that are in place.

Who is running the workshop?

My name is Simon Atkinson and I am currently a self-funded distance learning postgraduate researcher in the School of Museum at the University of Leicester, UK. I am also the full-time Associate Dean of Learning and Teaching for BPP University, a private provider of professional degrees with degree awarding powers granted by the UK Privy Council and quality audited by the *Quality Assurance Agency* for Higher Education (*QAA*). I have 20 years postgraduate professional educational experience in the UK and New Zealand, including working as the Director of Learning and Teaching at the College of Education, Massey University (2008-2010), and the Head of the Centre for Learning Development, University of Hull (2003-2008). I have managed and supervised several multi-party research projects as part of EU Socrates and Leonardo initiatives and teach action-research modules on the Postgraduate Certificate in Professional Higher Education that I currently lead.

What is the research for?

My doctoral research builds on my professional engagement as an educator. This research is grounded in work as an action researcher in my professional context over the last 20 years where I have often been concerned with the design of learning for self-directed study by adults. This doctoral research will investigate to the extent to which a higher education learning design processes might help to support existing and future effective learning opportunities for adult visitors to museums. It asks what support is currently available for the self-directed adult learner in heritage institutions and how effective the existing conceptual models of learning taxonomies might be to support designing and evaluating self-directed adult learning.

How you were selected?

You have been identified as an ideal person to support this research because you have been involved with a heritage institution that seeks to address the needs of self-directed adult learners.

Your role as a Workshop participant

I would appreciate your participation in this 75-90 minute evaluation workshop here, as part of this ICOM/CECA/DEMIHIST conference.

There will be a *possibility* of follow-up interviews that can be done either online in Adobe Connect (full details will be provided) or in person at a time and location that suits you. If you would like to do the interview online you will need a webcam and suitable microphone but no special software is necessary as everything runs in a standard web browser.

Your rights

Your participation in this research is entirely voluntary and you are free to withdraw from the project at any point, although ideally if you do to withdraw you will be able to notify me before the 1st February 2018 as the final thesis I hope will be submitted in April 2018. If you are uncertain or uncomfortable about any aspect of your participation, please contact me at the email address at top of this letter to discuss your concerns or request clarification on any aspect of the study.

Protecting your confidentiality

Any information you supply will be treated confidentially. The default position will be to anonymise all respondents' data and to use aggregated data in the final analysis and subsequent publication. You will be asked prior to any publication or submission to approve any identifying quotes or facts pertaining to your institutional engagement. All audio and video recordings of interviews, transcripts and documentation shared by you will be encrypted, for digital artefacts, or under lock and key for physical materials and all data will be managed in accordance with the 1998 Data Protection Act.

If you have any questions about the ethical conduct of the research please contact the School Research Ethics Officer, Dr Giasemi Vavoula, on gv18@le.ac.uk.

Thank you very much for participating,

With best wishes,

Simon Paul Atkinson

Appendix 3

Facsimile of Consent Form for Birmingham Participates

University of Leicester

Research Consent form

I agree to take part in the study entitled *"Evaluating the educational opportunities afforded by heritage spaces for self-directed learners",* which is research towards a Doctorate in Museum Studies at the University of Leicester.

I have had the above-named research study explained to me and I have read the Information sheet about the study which I may keep for my records.

I understand that this research study will be carried out in accordance with the University of Leicester's Code of Research Ethics which can be viewed at: http://www2.le.ac.uk/institution/ethics/code

Material I provide as part of this study will be treated as confidential and securely stored in accordance with the Data Protection Act 1998.

I have read and I understand the information sheet	Yes ❑	No ❑
I have been given the opportunity to ask questions about the project and they were answered to my satisfaction	Yes ❑	No ❑
I understand that I can withdraw from the study at any time before the 1st February 2018	Yes ❑	No ❑
I agree to my contributions to the workshop and subsequent conversations being recorded and my words being used in anonymously in a PhD Thesis and associated academic publications, including those in digital forms	Yes ❑	No ❑
I give permission for my real name and institutional affiliation to be used in connection with any words I have said or information I have passed on	Yes ❑	No ❑
I give permission for my real name be used in connection with any information I have provided or comments I have made	Yes ❑	No ❑
I give permission for my comments to be presented anonymously and give permission to connect my institutional affiliation with my comments (but not the title of my position)	Yes ❑	No ❑
I give permission for my comments to be presented anonymously with no mention of my institutional affiliation	Yes ❑	No ❑

Name [PRINT] ……………………………………….

Signature …………………………………………….

Date …………………………………………….

Appendix 4

Facsimile of Consent Form for London Participates

University of Leicester

Research Consent Form
Relevance 2017 – Workshop

I agree to take part in the study entitled *"Evaluating the educational opportunities afforded by heritage spaces for self-directed learners",* which is research towards a Doctorate in Museum Studies at the University of Leicester.

I have had the above-named research study explained to me and I have read the Information sheet about the study which I may keep for my records.

I understand that this research study will be carried out in accordance with the University of Leicester's Code of Research Ethics which can be viewed at
http://www2.le.ac.uk/institution/committees/research-ethics/code-of-practice

Material I provide as part of this study will be treated as confidential and securely stored in accordance with the Data Protection Act 1998.

		Please Tick	
1	I have read and I understand the information sheet	Yes ☐	No ☐
2	I have been given the opportunity to ask questions about the project and they were answered to my satisfaction	Yes ☐	No ☐
3	I understand that I can withdraw from the study at any time before the 1st February 2018	Yes ☐	No ☐
4	I give permission for my comments to be presented anonymously with no mention of my institutional affiliation	Yes ☐	No ☐
5	I agree to my contributions to the workshop and subsequent conversations being recorded and my words being used in **anonymously** in a PhD Thesis and associated academic publications, including those in digital forms	Yes ☐	No ☐

Name [PRINT]:	
Email:	
Signature:	
Date:	

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