

Visitors And Learners: Adult Museum Visitors' Learning Identities

Lynda Kelly

Abstract Current theories of learning focus on the meanings an individual makes based on their experience—alone, within a social context and as part of a community. A critical aspect in better understanding the process of learning for an individual is to find out how people view themselves as learners across the rich array of both formal and informal learning experiences available to them. Museums are increasingly positioning themselves in the market as places for rich learning experiences, and research has shown that when asked why they visit museums people often say “to learn”, yet there has been little exploration into what this means. What do museum visitors think learning is and how do visitors view themselves as learners within the context of a museum visit—their *learning identity*? This paper reports on a doctoral study that investigated adult museum visitors' learning identities and how these were influenced by a visit to a museum exhibition.

Lynda Kelly (lynda.kelly@austmus.gov.au) is Head of Audience Research at the Australian Museum, Sydney.

Current theories of learning focus on the meanings an individual makes based on their experience—alone, within a social context and as part of a community (Falk and Dierking 2000, 1992; Hein 1998; Malone 1990; Matusov and Rogoff 1995; Woolfolk 1998). A critical aspect in better understanding the process of learning for an individual is to find out how people view themselves as learners across the rich array of both formal and informal learning experiences available to them. As informal learning environments museums are increasingly positioning themselves in the market as places for rich learning experiences. Research has shown that when asked why they visit museums people often say “to learn” (Combs 1999; Falk 1998; Falk, Moussouri and Coulson 1998; Jansen-Verbeke and van Rekom 1996; Kelly 2001; Prentice 1998) but there has been little exploration into what learning means for visitors. What do museum visitors think learning is, and how do visitors view themselves as learners within the context of a museum visit—their *learning identity*—and does this change during and after their visit?

This paper reports on doctoral study that investigated adult museum visitors’ learning identities, addressing the following research questions *How do adult museum visitors describe learning?; What role does learning play in their lives?; and How do these relate to their museum experiences?.*

Background

Museums have always seen themselves as having an educational role. Yet, more recently the need has been identified for a change in thinking about museums as places *of education* to places *for learning*, responding to the needs and interests of visitors (Bradburne 1998; Carr 2003; Falk 2004; Falk and Dierking 2000). Weil (1999) stated that museums need to transform themselves from ‘... being *about* something to being *for* somebody’ (p.229, emphasis in original). Hooper-Greenhill (2003) noted that a conceptual change from education to learning was an important development in the ways museums need to think about their visitors and provide services for them.

As learning is a key issue for museums, there were a number of reasons identified why studying the word learning was needed. First, literature about why people visit museums revealed the overwhelming reason given was for some type of learning experience, usually described as education, getting information, expanding knowledge or doing something worthwhile in leisure. Often the word “learning” was

used, which was linked to higher-order fulfilment of personal needs and enhancing self esteem. There is a large body of literature about how people learn, where they learn, and what they learn, yet less has been published on what the word “learning” actually means as defined by the learner, especially in a museum context.

The second reason was the potential confusion between the words “learning” and “education” (Falk, Dierking and Holland 1995). Prince (1990) investigated a range of attitudes and perceptions that were key to museum visiting. He argued that visitors’ previous experiences with museums, as well as with learning and education generally, determined whether people then visited museums and their responses to them. Prince suggested that if museums were perceived as “educational” this could be a deterrent, due to peoples’ past negative experiences with formal education. He proposed that people made positive choices to do things in their leisure time because they valued and enjoyed them. He then concluded that if people valued the concept of *learning* more highly than *education* museums may be doing themselves a disservice if they portrayed themselves as being educational.

The third reason to study the word learning in museums is that it has been proposed that people who think about themselves as learners have better learning outcomes (Clarke 1998; Marton and Svensson 1979; Pramling 1996; Taylor 1996). These authors suggested that if learners thought *about* their learning rather than merely learning *how* to learn their learning outcomes would be better. Saljo (1979) concluded that the focus of research should be on how learners conceptualised their ways of thinking about learning rather than how they thought they learned or what they learned.

The issues described above suggest that it is vital to further understandings about how visitors describe learning and how they see themselves as learners within a museum context. Therefore, the purpose of this doctoral study was to understand the interrelationships between visitors’ views of learning and their museum learning experiences, summarised in Figure 1.

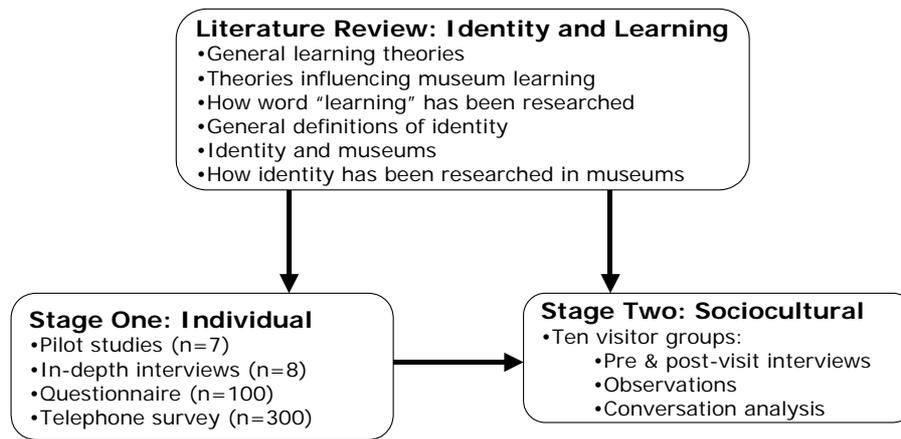


Figure 1. Research approach

The work was undertaken in two stages. Stage One investigated an individual’s personal philosophy and views about learning. This stage comprised eight in-depth interviews and 100 questionnaires with adult museum visitors. As well, a telephone survey of 300 Sydney adults using two areas from the questionnaires was conducted to compare responses of museum visitors with the general population. Stage Two explored whether engagement with a museum exhibition had any effect on visitors’ learning identities. Ten groups of visitors were interviewed about their views of learning both before and after a visit to an exhibition at the Australian Museum, Sydney. In addition, their conversations were audio-taped and detailed behavioural observations undertaken during the visit.

Literature Findings

As shown in Figure 1, there were two major areas of literature accessed—learning theory, with an emphasis on perceptions of learning and education; and identity, with a focus on museums. The literature review demonstrated a view of learning as a creative process of change in a person at an individual, social and community level. Although learning is complex with many interrelated factors, the essential elements found consistently across the literature reviewed was that learning is both unique to an individual and a shared process. Learning occurs across all facets of a person’s life and is both immediate and happens over time and across contexts. Learning is an active process of reflection leading to self-awareness and change, an activity chosen by an individual based on their own interests and preferences. It is shaped by a person’s prior knowledge and experiences, being creative, innovative and enjoyable.

Learning is facilitated by a wide range of tools—a dynamic between a person and “something”. Motivation and purpose are key components of learning, with the social dimensions of learning being critical. Learning is an essential part of being human, is both conscious and unconscious, and linked to identity and sense of self (for a detailed list of references see Kelly 2007).

In contrast, the literature suggested that education was passive; formal; being told to do something; imposed, not chosen; associated negatively with school and teachers; hard work; structured and systematic (Combs 1999; Hooper-Greenhill 2003). For example, Taylor and Spencer (1994) reported that, when comparing education to learning, one respondent in their study commented ‘Learning is *you* doing it and education is somebody doing it *to you*’ (p.5, emphasis added).

Identity is a concept that has received increased attention across a range of research disciplines (du Guy, Evans and Redman 2000; Falk 2006; Kidd 2002; Maslow 1999; Rounds 2006; Sfard and Prusak 2005). Identity is a political term that can be related to power and conflict (Hall 1996), while Wenger (1998) considered that identity addressed issues of participation, inclusion and exclusion. There is a large literature dealing with identity, as well as the politics of identity, across diverse fields such as sociology (Kidd 2002), educational psychology and personality theory (Pervin 1984; Shaffer 1979; Vander Zanden and Pace 1984) and cultural studies (du Guy, et al. 2000).

From a synthesis of the identity literature reviewed, it was concluded that identity is how a person sees themselves in relation to their world and their role in it. It is fluid, being shaped by the social context and membership of a community. Identity changes across a person’s life cycle, based on a range of factors such as age, gender, cultural background, socioeconomic status and general life experience. Identity is an integral part of a person’s personality and how others see them. Identity not only influences who a person is now, but also how a person behaves and conceives themselves in the future. It is what makes people different from one another—how a person thinks, behaves, perceives themselves and their role that differentiates themselves from others. Wenger (1998) saw identity as ‘... an integral aspect of a social theory of learning ... a pivot between the social and the individual’ (p.145).

It has been recognised that a visit to a museum can influence a person’s identity and their sense of self (Falk 2006; Hooper-Greenhill 2000; Leinhardt and Gregg 2002; Leinhardt, Tittle and Knutson 2002). The interplay between the backgrounds that

visitors bring and their reactions to objects and experiences can lead to subtle changes in views of themselves, their identity and meaning making, both individually and collectively (Hein 1998; Silverman 1995; Stainton 2002). Rounds (2006) suggested that visitors use museums for “identity work”, defined as ‘... the processes through which we construct, maintain, and adapt our sense of personal identity, and persuade other people to believe in that identity’ (p.133).

Research Findings

Two areas of the research findings are discussed in this paper—a model of museum learning developed from visitors’ responses to the word learning, and the relationship between adult visitors’ learning identities and their museum experiences.

6P model of museum learning—Analysing all data sets and a fresh look at the literature it is suggested that museum learning could be framed under six interrelated categories—person, purpose, process, people, place and product—the *6P model of museum learning* (Figure 2). This model, while resonating with Falk and Dierking’s Contextual Model of Learning (2000), is derived from the findings of the present study, presenting a potentially powerful way to theorise and explain museum learning through the interrelationships between each of the six categories.

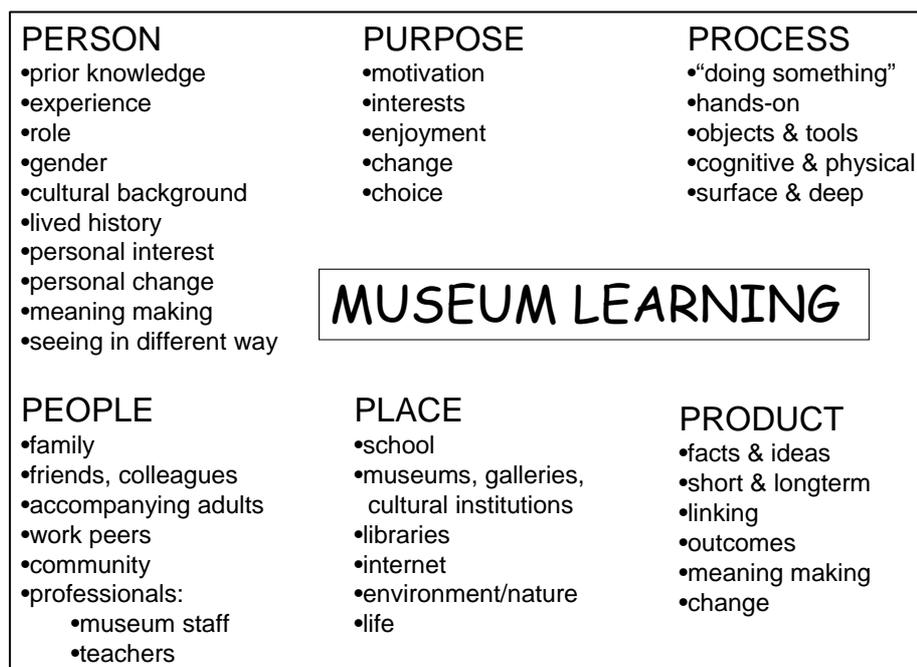


Figure 2. The 6P model of museum learning

The category of *person* relates to the individual learner, their prior knowledge, experience and lived histories; their cultural backgrounds and gender; as well as the roles played at different times in their everyday lives. It also covers individual changes that result from learning through meaning making and seeing things in different ways. The framework of constructivism, with its emphasis on the learner (Fosnot 2005; Hein 1998; Woolfolk 1998) has been used as a basis for the person category. The aspects of constructivism strongly supported in the study were learning that builds on what people already know; personal interest; personal change and seeing something in a different way. When describing learning the role that prior knowledge played was also mentioned:

- *An expansion of what you already know* (Interview #47).
- *New things that add to your body of knowledge* (Interview #78).

Museums have been described as socially-mediated meaning making environments (Falk and Dierking 2000). People make meaning from their museum experiences in many different ways based on a conjunction between what the museum provides and the social norms of the group they visit with (Fienberg and Leinhardt 2002). The study suggested strong support for learning as meaning making. For example, 82% of Museum visitors rated the statement *Constructing meaning based on my own experiences* as important/very important in learning something new. In the open-ended responses participants talked about learning as a process of gaining some knowledge, thinking about it and then making new meanings. For example, learning was described as making sense of something in order to draw conclusions and reach new understandings:

- *Finding your place in the world. Engaging with the world in a way to discover more about it and make sense of things. That's the big picture* (Interview #40).
- *Gaining ideas and knowledge which then enables you to gain understanding* (Interview #68).
- *Being able to put pieces of information together [to] draw conclusions* (Interview #71).

Several museum learning researchers have discussed the variety of roles visitors played during a museum visit (Ellenbogen 2002; Sedzielarz 2003). The present study revealed that some participants (particularly mothers and grandmothers visiting with children) felt that their role was to support the learning of the children they

accompanied to museums and other cultural institutions, rather than learn themselves. When this idea was investigated further it was found that there were three roles played—the “visit manager” by directing and organising; the “museum expert” in explaining, clarifying and correcting; and the “learning-facilitator” through questioning, linking, reminiscing and wondering. These roles are interchangeable, occur simultaneously and are dependant on both the social context of the visit and the group composition, particularly the ages of any accompanying children.

Doering and Pekarik (1996) proposed that visitors came to museums with rich and deep prior experiences—storylines or “entrance narratives”—that they drew on to make sense of their interactions. In the 6P model **purpose** covers the motivations behind learning, including a person’s general interests, enjoyment and fun, and choosing learning.

The issue of choice, particularly when comparing learning with education, was one area participants felt strongly about. Consistent with the literature (Griffin 2004; Hein and Alexander 1998; Paris 1997; Park 1994; Taylor and Spencer 1994) choice was seen by participants in the study as an important way of facilitating learning. The differences seemed to lie in the word *teach* which was associated with being “talked to” or “told to do something” in an educational sense, and the word *learn* that was connected with personal choice. Choice was seen as an important way of facilitating learning, for example: *Obviously [learning is] something that’s not boring, something that’s not passive, so it’s more of an active thing ... Something where you choose to be involved, that you’re interested in doing.* (Interview Transcript 3.1).

The literature recognised that people learn in many different ways (Cassels 1992; Dierking 1989; Gardner 1993; Schmeck 1988). In the 6P model, **process** includes the myriad ways that learning actually happens, with an enormous diversity in the ways people described the learning process. Across all samples learning was expressed as an everyday process undertaken by all humans. It was seen as a way of acquiring and gathering something, for example, information, skills or knowledge, and doing something with it, such as understanding, applying, expanding, discovering, assimilating, experiencing and exploring. Learning was associated with change, both profound and surface, as well as engaging with facts and ideas. Learning was also mentioned as a cognitive process (inside a person’s head) and a physical process (such as a hands-on, manipulative experience). Some examples of responses that illustrated process were:

- *Opening the mind to new experience* (Interview #4).

- *Acquiring new knowledge and applying that* (Interview #5).
- *Expanding your knowledge about an area by a variety of means* (Interview #11).
- *An understanding of how things work* (Interview #42).
- *... making change – personal, mental, spiritual, physical ... a catalyst for change* (Interview C3).
- *Enhancing my understanding of the world and acting on that understanding* (Interview C3).
- *Taking in what you see around you and using it in your everyday life* (Interview C4).

The literature showed that visitors viewed exhibitions through the lens of their life experiences, often making connections with their own lives (Leinhardt and Gregg 2002; Paris and Mercer 2002; Stainton 2002). Participants in the present study recognised the value of building on prior knowledge and experiences when museums addressed visitors' specific and general interests and also made the visit experience enjoyable and fun. The study found that visitors made connections from an exhibition to other areas of their lives based on shared experiences, using objects they saw in the exhibition as triggers that linked to previous life events, often holidays and other "environmental" experiences, for example:

R. [points to showcase] *There's a crayfish, a yabby.*

T. *Oh yes.*

R. *We've seen yabbies walking across the ground. They actually walk across fields looking for water.*

E. *They have been down our drive. As a matter of fact, when Dad was alive, he took a couple to the pond in the golf course. But the kids used to bring them home from somewhere.*

T. *And they escaped?*

E. *Yes.*

(Conversation Transcript C3)

People covers the social dimension of learning. Research has consistently found that the social dimensions of a museum visit were important, and that sharing learning was a particular feature of family visiting (for a detailed list of references see Kelly 2007). Morrissey (2002) reported that adults exhibited learning behaviours that were group-based, resulting in people learning '... *about* each other while they learn *through* each other' (p.285, emphasis in original). Participants in the present study

identified a broad and diverse range of people they learn with, including family; friends/colleagues/work peers; and professionals such as museum staff, teachers, and university lecturers.

Those interviewed in-depth felt that the social dimension of a visit was an important way that learning happened through people's interactions with others in the group and the roles they played in a museum visit. The recognition that family and the general community were valuable learning units was a particularly strong result. When discussing their museum experiences participants recognised that they learned with and through others—learning about themselves and others, as well as the subject matter. Participants talked about interacting with *both* the content of the exhibition and the other people in the group they had visited with. For example, one discussed the nature of the learning between himself and his friends as a social event: ... *sometimes we'd bounce off something of interest to ourselves, then we'd look at it a bit more, wander off. Then we'd come together a few times to have a look at things. I also learned a bit more about my friends. I didn't know they had an interest in [tattoos] either, and you sort of learn more of what they're about as well.* (Interview Transcript 3.4).

Falk and Dierking's work on adult learning and museum visiting (2000) concluded that for '... many adults, the social reasons for their visit are so dominant that it is these aspects that are the take-away messages from a museum experience' (p.101). To demonstrate this point, one of the study participants talked about the social experience his group had in just being together: *We were all of us, the three of us, were all fascinated by the young crocodiles upstairs, the live ones. We just sat down and watched them for ten minutes. Because initially it looks like it's all fake because they don't move. Then gradually we saw one move its' legs under, and this other was sort of sunning itself, and that was interesting.* (Interview Transcript 3.6). Another described a visit to an art gallery with her granddaughter as a social outing: *We looked at everything, every mask quite thoroughly because there was only one other man there. We took our time and she read the little pamphlet that we were given. She seemed very interested.* (Interview Transcript 3.3). All groups studied in Stage Two shared their learning during their visit, evidenced from their conversation transcripts, for example:

R. *Hey K, look at these ones, how's that for a shell?*

K. *That's an unusual one.*

T. *That's beautiful.*

- K. *Were shells alive, are shells alive?*
- R. *They've got things inside them.*
- T. *Molluscs in them.*
- K. *But are the actual shells alive?*
- T. *No.*
- R. *They're a shell.*
- T. *I think the shell is the shell of the mollusc that originally lived in them, like a snail.*
- K. *So they're part of something?*
- T. *They're part of something that was, yes.*

(Conversation Transcript C3)

It has been reported in the literature that people accessed museums as one of a wide range of information resources used when learning (Ellenbogen 2002; Falk and Dierking 2000; Kelly 2006). While learning was viewed as contextual and occurs across all aspects of a person's life there were specific **places** nominated by individuals when thinking about where they learned. These included the formal education environments of school, university and libraries and informal places such as cultural institutions and the environment/nature (specifically holiday and travel destinations), for example in this conversation between a mother and her two children:

- E. *Look at the seahorses.*
- C. *Like the one in the salt water.*
- B. *They're just so cute and they swim along...*
- E. *I'd hate to be bitten by these fish, look at the teeth!*
- C. *But they don't normally attack. ... When we go to [names place] next week we should go and find the white seahorses. Wouldn't that be mad if we see one and we go, that's a white seahorse. The guy's going to just look at us [and go] how do you know that!*

(Conversation Transcript F5)

Recent research found that visitors appreciated the role museums could play as authoritative, trusted and credible sources of information, and that they were accessed by a wide range of people (Ellenbogen 2002; Falk, Brooks and Amin 2001; Kelly 2006; Lake Snell Perry & Associates 2001). It has long been understood that perceptions of museums are formed through visiting as children, especially their positive and negative school visit experiences (Falk and Dierking 2000, 1997; Griffin

1998). Participants in the present study were generally positive about museums, with both the questionnaire and telephone survey respondents actively using museums when learning something new. Seventy-five percent of those interviewed at the Australian Museum chose *museums, galleries, other cultural institutions* as important in learning. However, a similar percentage (76%) of the telephone survey respondents (general public) also chose *museums, galleries, other cultural institutions* as important in learning. This was surprising, considering that they were not told that the survey was being conducted on behalf of a museum.

Marton and Svensson (1979) suggested that learning resulted in a large range of outcomes for an individual. Several authors have discussed learning as a progression from lower-order to higher-order outcomes (Entwistle 1997; Marton, Dall'Alba and Beaty 1993; van Rossum, Diejkers and Hamer 1985), and many authors have equated learning with change (Dewey 1938; Falk and Dierking 2002; Marton, et al. 1993; Rennie and Johnston 2004). The present study found that participants also strongly associate learning with change, both deep and surface, as well as **products** such as learning new facts and engaging with ideas. When reflecting on their museum experiences, participants in the study were able to express changes made to deeply-held attitudes, as well as thinking differently about concepts, ideas and their own learning processes:

- *A new way of looking at something – new facts, an interaction* (Interview #28).
- *A broadening and deepening of your understanding of all things* (Interview #31).
- *The application of knowledge to new circumstances* (Interview #55).

Gaining ideas and knowledge which then enables you to gain understanding (Interview #68).

Useful outcomes from learning were identified across all samples, with ideas proposed such as increased information, knowledge, facts and self-awareness:

- *Acquiring new knowledge and applying that* (Interview #5).
- *Discovering everything that's new and rediscovering, see different things the second time round* (Interview #21).
- *Picking up from other peoples' or your own experiences, and applying that to whatever you do* (Interview #39).

One product of learning is the variety of ways that adult visitors linked to their past, present and future life experiences. In Stage Two many examples were found of

adults using objects they saw in the exhibition as triggers that linked to previous life events, often holidays and other “environmental” experiences, for example:

K. Are they stick insects?

T. Some of them are. That's at the end of [names place].

K. Did we sail past that?

T. We didn't sail past that but we flew nearby. You could see it from the top of the mountain Daddy climbed. Look at the frogs. Look at the size of those. Not like our piddly little ones.

K. Like that small one? [points]

T. Ours would be like that.

(Conversation Transcript C3)

Learning and identity—As the literature review revealed, learning is an integral part of a person's identity (Rounds 2006; Sfard and Prusak 2005), and can be influenced by visitors' interactions with museum objects (Callanan, Jipson and Soennichsen 2002). Paris and Mercer (2002) noted that visitors recalled and responded to objects in exhibitions that resonated with their personal identities. The present study found many examples of visitors relating objects they were seeing to other shared experiences and using objects to recall experiences that were meaningful to them and to their group. Worts (1996) suggested that individuals have two kinds of identity—*personal* which made an individual unique, and *collective* in what types of groups they belong to. The present study found similar results to Worts—although sharing was important through linking to past, present and future experiences (collective), there were still defined roles for an individual (personal).

Sfard and Prusak (2005) proposed that learning was an integral part of a person's identity. The present study suggests that an individual's learning identity is the link that connects each element of the 6P model, as illustrated in Figure 3.

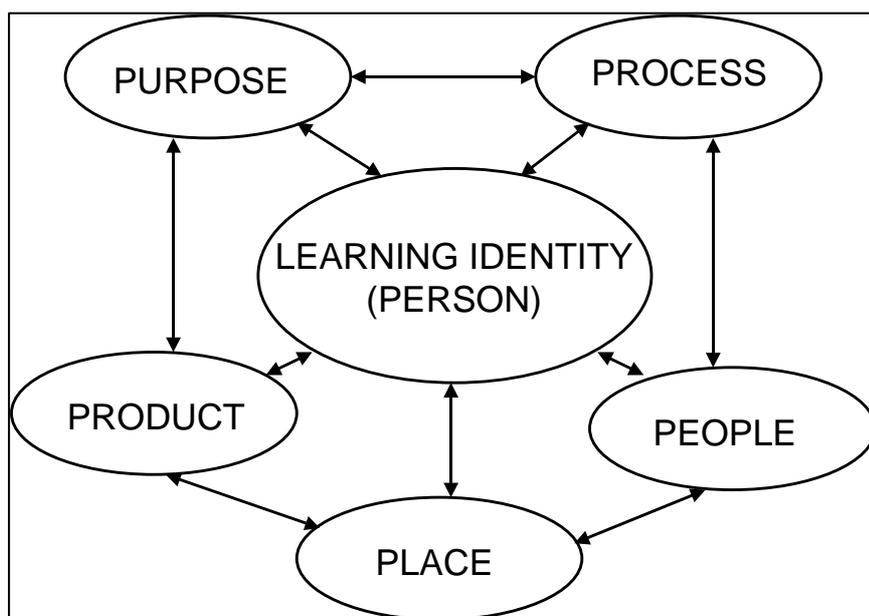


Figure 3. Learning identity

In a museum visit learning identity is expressed through a combination of:

- *person*: their life experience, the roles they play, as well as age and gender
- *purpose*: why they visited
- *process*: the ways they learn as well as the objects and interpretive tools such as texts, film and interactives provided in an exhibition
- *people*: the visiting group
- *place*: linking back to prior experiences such as group holidays and travel, social occasions and the natural environment
- *product*: the outcomes of their learning.

Educational psychologists have mentioned how enduring a person's identity can be over time (Vander Zanden and Pace 1984). Examples from Stage Two demonstrated that learning identity is enduring for some people and not others—it ebbs and flows depending on the sociocultural context of the museum visit. Leinhardt and Knutson (2004) suggested that identity was participatory and changed in response to a museum visit, which is supported by results from this study. In Stage Two it was found that participants gained insights into their learning identity in three ways, with the exhibition experience:

- *Influencing* their learning identity through identifying new ways that they learn from their exhibition experience or becoming more confident in their learning.
- *Resonating* with, or matching, their learning identity.

- *Conflicting* with their learning identity, reinforcing in their minds the ways they do not like to learn.

Both Paris (1997) and Morrissey (2002) noted that visitors learned more about themselves and others through their museum experiences. The present study found that adults who participated in Stage Two were aware of how they like to learn, how they can learn differently, as well as how they do *not* want to learn and were adept at articulating their learning preferences. It also emerged that participants in both stages of the study want museum learning experiences that are both educational and entertaining.

Conclusion

Museum learning is a dynamic process involving both the individual and their social and physical context. The findings from this study imply that museum learning experiences are enhanced through giving attention to the learner's needs and the multiple roles they play in a visit; the social context of the visit; the objects and tools the museum provides; and the interpretive approaches employed within the 6P framework of person, purpose, process, people, place and product. However, further investigation is needed to test the applicability of the 6P model across a range of museum programs, as well as in museum learning research.

The method used in the present study revealed that visitors could learn more about the concept of learning as well as their own learning processes—likes, dislikes, preferred strategies—if they are encouraged to think about themselves as a learner before they engage with an exhibition. Overall, it is concluded that museum experiences can impact on adult visitors' learning identities. When given the opportunity to articulate their personal views about learning, adult museum visitors demonstrate wide-ranging and deep understandings of themselves as learners, which are subsequently shaped by the sociocultural context of the museum in conjunction with the multiple roles they play during a visit. However, the method used in Stage Two could also be further tested across a broader range of audience types, visitors with culturally-diverse backgrounds, as well as different types of exhibitions and programs.

Rounds (2006) proposed that visitors used museums for “identity work” through trying out different identities and testing new ideas in a relatively safe environment. Rounds felt that a useful focus for museum research should be on what

visitors were “doing about” their identity. The study reported in this paper researched adult visitors’ identities in relation to how they think about learning; the roles they play in a visit; how they share their learning; and the links they make with prior, current and future life experiences. It was found that the ways visitors see themselves as learners is fluid and changes in response to a range of factors both within and outside of their control and their consciousness. It is concluded that an adult museum visitor’s learning identity is both *integral*, a part of themselves, and *derivative*, influenced by the sociocultural context of the museum.

Acknowledgements

I would like to acknowledge the contribution made to this study by my supervisor Dr. Janette Griffin, University of Technology, Sydney. An early version of this paper was presented in 2006 at the *Museums: A World Forum* Conference, Leicester University, as well as to staff at the Australian Museum, Sydney and I am grateful for feedback received.

References

- Bradburne, J. 1998. Dinosaurs and White Elephants: the Science Centre in the 21st Century. *Museum Management and Curatorship* 17(2): 119-137.
- Callanan, M., J. Jipson and M. Soennichsen. 2002. Maps, Globes and Videos: Parent-Child Conversations About Representational Objects. In *Perspectives on Object-Centered Learning in Museums*. S. Paris, eds., 261-283. Mahwah: Lawrence Erlbaum Associates.
- Carr, D. 2003. *The Promise of Cultural Institutions*. Walnut Creek: AltaMira Press.
- Cassels, R. 1992. Mind, heart and soul: towards better learning in heritage parks. *New Zealand Museums Journal* 22(2): 12-17.
- Clarke, J. 1998. Student's Perceptions of Different Tertiary Learning Environments. *Higher Education Research & Development* 17(1): 107-117.
- Combs, A. 1999. Why Do They Come? Listening to Visitors at a Decorative Arts Museum. *Curator* 43(3): 186-197.
- Dewey, J. 1938. *Experience and Education*. New York: Kappa Delta Pi.
- Dierking, L. 1989. Learning Theory and Learning Styles: An Overview. *Journal of Museum Education* 4-6.
- Doering, Z. and A. Pekarik. 1996. Questioning the Entrance Narrative. *Journal of Museum Education* 21(3): 20-23.
- du Guy, P., J. Evans and P. Redman, eds. 2000. *Identity: a reader*. Sage: London.
- Ellenbogen, K. 2002. Museums in Family Life: An Ethnographic Case Study. In *Learning Conversations in Museums*. G. Leinhardt, K. Crowley and K. Knutson, eds., 81-101. Mahwah: Lawrence Erlbaum Associates.
- Entwistle, N. 1997. Contrasting Perspectives on Learning. In *The Experience of Learning: Implications for Teaching and Studying in Higher Education*. F. Marton, D. Hounsell and N. Entwistle, eds., 3-22. Edinburgh: Scottish Academic Press.
- Falk, J. 2004. The Director's Cut: Toward an Improved Understanding of Learning from Museums. *Science Education* 88(Supplement 1): S82-S96.
- . 2006. An Identity-Centred Approach to Understanding Museum Learning. *Curator* 49(2): 151-166.
- . 1998. Visitors: Who Does, Who Doesn't and Why. *Museum News* 77(2): 38-43.
- Falk, J., P. Brooks and R. Amin. 2001. Investigating the long-term impact of a science center on its community: The California Science Center L.A.S.E.R. Project. In *Free-Choice Science Education: How We Learn Science Outside of School*. J. Falk, eds., 115-132. New York: Teacher's College Press, Columbia University.

- Falk, J. and L. Dierking. 2000. *Learning from Museums: Visitor Experiences and the Making of Meaning*. Walnut Creek: AltaMira Press.
- , 2002. *Lessons Without Limit: How Free-Choice Learning is Transforming Education*. Walnut Creek: AltaMira Press.
- , 1992. *The Museum Experience*. Washington: Whalesback Books.
- , 1997. School Field trips: Assessing Their Long-Term Impact. *Curator* 40(3): 211-218.
- Falk, J., L. Dierking and D. Holland. 1995. How Should We Investigate Learning in Museums? Research Questions and Project Designs. In *Public Institutions for Personal Learning*. J. Falk and L. Dierking, eds., 23-30. Washington: American Association of Museums.
- Falk, J., T. Moussouri and D. Coulson. 1998. The Effect of Visitors' Agendas on Museum Learning. *Curator* 41(2): 107-120.
- Fienberg, J. and G. Leinhardt. 2002. Looking Through the Glass: Reflections of Identity in Conversations at a History Museum. In *Learning Conversations in Museums*. G. Leinhardt, K. Crowley and K. Knutson, eds., 167-211. Mahwah: Lawrence Erlbaum Associates.
- Fosnot, C. 2005. *Constructivism: Theory, Perspectives, and Practice*. New York and London: Teachers College Press.
- Gardner, H. 1993. *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.
- Griffin, J. 2004. Research on Students and Museums: Looking More Closely at the Students in School Groups. *Science Education* 88(Supplement 1): S60-S70.
- , 1998. *School-Museum Integrated Learning Experiences in Science: A Learning Journey*. Sydney: University of Technology.
- Hall, S. 1996. Who needs "identity"? In *Questions of cultural identity*. S. Hall and P. du Guy, eds., 1-18. London: Sage.
- Hein, G. 1998. *Learning in the Museum*. London: Routledge.
- Hein, G. and M. Alexander. 1998. *Museums: Places of Learning*. Washington: American Association of Museums.
- Hooper-Greenhill, E. 2003. Museums and Social Value: Measuring the Impact of Learning in Museums. Paper presented at the ICOM-CECA Annual Conference, Oaxaca.
- , 2000. *Museums and the Interpretation of Visual Culture*. London: Routledge.
- Jansen-Verbeke, M. and J. van Rekom. 1996. Scanning Museum Visitors. *Annals of Tourism Research* 23(2): 364-375.
- Kelly, L. 2001. Developing a model of museum visiting. Paper presented at the Museums Australia Annual Conference, Canberra.
- , 2006. Museums as Sources of Information and Learning: The Decision-Making Process. *Open Museum Journal* 8(
- , 2007. *Visitors and Learners: Adult Museum Visitors' Learning Identities*. Sydney: University of Technology.
- Kidd, W. 2002. *Culture and Identity*. Hampshire: Palgrave.
- Lake Snell Perry & Associates. 2001. *Americans Identify A Source of Information They Can Really Trust*. Washington: American Association of Museums.
- Leinhardt, G. and M. Gregg. 2002. Burning Buses, Burning Crosses: Student Teachers See Civil Rights. In *Learning Conversations in Museums*. G. Leinhardt, K. Crowley and K. Knutson, eds., 139-166. Mahwah: Lawrence Erlbaum Associates.
- Leinhardt, G. and K. Knutson. 2004. *Listening in on museum conversations*. Walnut Creek: Altamira Press.

- Leinhardt, G., C. Tittle and K. Knutson. 2002. Talking to Oneself: Diaries of Museum Visits. In *Learning Conversations in Museums*. G. Leinhardt, K. Crowley and K. Knutson, eds., 103-133. Mahwah: Lawrence Erlbaum Associates.
- Malone, J. 1990. *Theories of learning: a historical approach*. Belmont: Wadsworth Publishing Company.
- Marton, F., G. Dall'Alba and E. Beaty. 1993. Conceptions of Learning. *International Journal of Educational Research* 19(3): 277-300.
- Marton, F. and L. Svensson. 1979. Conceptions of Research in Student Learning. *Higher Education* 8(4): 471-486.
- Maslow, A. 1999. *Toward a Psychology of Being*. New York: John Wiley & Sons, Inc.
- Matusov, E. and B. Rogoff. 1995. Evidence of Development from People's Participation in Communities of Learners. In *Public Institutions for Personal Learning*. J. Falk and L. Dierking, eds., 97-104. Washington: American Association of Museums.
- Morrissey, K. 2002. Pathways Among Objects and Museum Visitors. In *Perspectives on Object-Centered Learning in Museums*. S. Paris, eds., 285-299. Mahwah: Lawrence Erlbaum Associates.
- Paris, S. 1997. Situated Motivation and Informal Learning. *Journal of Museum Education* 22(22-27).
- , eds. 1997. *Understanding the Visitor Experience: Theory and Practice, Part 1*. Washington: Journal of Museum Education.
- Paris, S. and M. Mercer. 2002. Finding Self in Objects: Identity Exploration in Museums. In *Learning Conversations in Museums*. G. Leinhardt, K. Crowley and K. Knutson, eds., 401-423. Mahwah: Lawrence Erlbaum Associates.
- Park, A. 1994. *Individual commitment to lifelong learning: individuals' attitudes: report on the quantitative phase. Research series No. 32*. Sheffield: Employment Department.
- Pervin, L. 1984. *Personality: Theory and Research*. New York: John Wiley & Sons Inc.
- Pramling, I. 1996. Understanding and Empowering the Child as a Learner. In *The Handbook of Education and Human Development: New Models of Learning, Teaching and Schooling*. D. Olsen and N. Torrance, eds., 534-563. Cambridge: Blackwell Publishers Ltd.
- Prentice, R. 1998. Recollections of Museum Visits: A Case Study of Remembered Cultural Attraction Visiting on the Isle of Man. *Museum Management and Curatorship* 17(1): 41-64.
- Prince, D. 1990. Factors Influencing Museum Visits: An Empirical Evaluation of Audience Selection. *Museum Management and Curatorship* 9(149-168).
- Rennie, L. and D. Johnston. 2004. The Nature of Learning and Its Implications for Research on Learning from Museums. *Science Education* 88(Supplement 1): S4-S16.
- Rounds, J. 2006. Doing Identity Work in Museums. *Curator* 49(2): 133-150.
- Saljo, R. 1979. Learning About Learning. *Higher Education* 8(4): 443-451.
- Schmeck, R., eds. 1988. *Learning Strategies and Learning Styles*. New York: Plenum Press.
- Sedzielarz, M. 2003. Watching the Chaperones: An Ethnographic Study of Adult-Child Interactions in School Field Trips. *Journal of Museum Education* 28(2): 20-24.
- Sfard, A. and A. Prusak. 2005. Telling Identities: In Search of an Analytic Tool for Investigating Learning as a Culturally Shaped Activity. *Educational Researcher* 34(4): 14-22.

- Shaffer, D. 1979. *Social and Personality Development*. Monterey: Brooks/Cole Publishing Company.
- Silverman, L. 1995. Visitor Meaning Making in Museums for a New Age. *Curator* 38(3): 161-169.
- Stanton, C. 2002. Voices and Images: Making Connections Between Identity and Art. In *Learning Conversations in Museums*. G. Leinhardt, K. Crowley and K. Knutson, eds., 213-257. Mahwah: Lawrence Erlbaum Associates.
- Taylor, P. 1996. Reflections on Students' Conceptions of Learning and Perceptions of Learning Environments. *Higher Education Research & Development* 15(2): 223-237.
- Taylor, S. and E. Spencer. 1994. *Individual commitment to lifelong learning: individuals' attitudes: report on the qualitative phase. Research series No. 31*. Sheffield: Employment Department.
- van Rossum, E., R. Diejkers and R. Hamer. 1985. Students' Learning Conceptions and Their Interpretation of Significant Educational Concepts. *Higher Education* 14(6): 617-641.
- Vander Zanden, J. and A. Pace. 1984. *Educational Psychology: In Theory and Practice*. New York: Random House.
- Weil, S. 1999. From Being *about* Something to Being *for* Somebody: The Ongoing Transformation of the American Museum. *Daedalus* 128(3): 229-258.
- Wenger, E. 1998. *Communities of Practice: Learning, Meaning and Identity*. Cambridge: Cambridge University Press.
- Woolfolk, A. 1998. *Educational Psychology*. Boston: Allyn and Bacon.
- Worts, D. 1996. Visitors Make Their Own Meaning. In *Developing Museum Exhibitions for Lifelong Learning*. G. Durbin, eds., 123-130. London: The Stationery Office for the Group for Education in Museums.