

Museum Visitor Experiences and Learning

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A. What is the nature of learning?

Young people's learning:

- involves action (mental or physical), implying a degree of choice and ownership
- is stimulated when new experiences or phenomena are met
- occurs when new and existing ideas can be linked or fill a gap
- involves arousing curiosity
- is supported by social interaction

When adults are learning they:

- need to be self-directing
- bring prior experiences to any learning episode
- are interested when there is a discrepancy between what they know and what they need to know
- are motivated by both extrinsic and intrinsic situations
- bring a broad agenda to learning situations (Boud, 1993; Jarvis, 1987; Knowles, 1984)

The similarity between these descriptions tells us that learning by people of any age is not simple and cannot be measured using simple tools.

Each person will gather different information and understandings from the same exhibit.

Each person's learning incorporates many experiences beyond the museum visit.

We need to be innovative in how we determine whether museum visitors are learning from our exhibits.

So the question becomes: *How do we know when learning is happening in a museum?*

Three possible ways of finding this out could be:

1. Personal declarations of learning
2. Looking for understanding of the big ideas of an exhibit

3. Looking for behaviours that indicate learning is happening

The MARVEL project (*Museums Actively Researching Visitor Experiences and Learning*) is looking at how to use these three ways to determine the nature, depth and breadth of visitor learning in museums and botanic gardens.

The MARVEL Research Team is:

- Janette Griffin, Senior Lecturer, Faculty of Education, University of Technology, Sydney
- Janelle Hatherly, Manager, Community Education, Royal Botanic Gardens, Sydney
- Lynda Kelly, Head, Australian Museum Audience Research Centre
- Gillian Savage, Directors, Environmetrics Pty Ltd

B. How can we measure learning?

1. Personal declarations of learning

In an earlier study with school students it was found that young people readily declared if they were learning (Griffin & Symington, 1997):

*This visit was different to previous ones because in this one we actually **wanted to find out about** [the animals], on other ones we just went to have a look.*

*I liked all of it because **I learnt heaps of things and it was fun** being with my friends and learning things at the same time.*

*The museum was **a lot more fun** ...cause you found out information you wanted to find out about not things you didn't want to find out about.*

2. Perceptions of Learning

In an ongoing study looking at people's perceptions of learning, photos have been used to elicit views of learning (Dierking & Griffin, 1999). Young people aged 4-14 in interviews stimulated by photos taken at home, outdoors, in a museum, in a school classroom, in the school playground declared that they enjoyed learning when:

- it was fun
- there was choice
- when they were with friends/family

3. Mind Maps and Photo-based interviews

A study in the US with family groups in a museum found that:

- Learning AND enjoyment go together
- Social interaction – being together and sharing experiences and memories
- Modelling : family members observing one another and learning by example
- Driven by interest or need

4. Drawings

Drawings by Danish and Australian children and young adults showed that learning:

- involves other people
- takes place in many settings
- is self-directed
- involves choice
- is increased when articulated

These descriptions are similar to the components of an intrinsically motivating museum experience described by Perry (1998): curiosity, confidence, challenge, control, play and communication and those described by Griffin (1998): purpose, choice, ownership.

Another Important Question is raised from these results is:

Are there conflicts between learning and entertainment?

or enjoyment?

or fun?

or playing?

I believe that the results we are finding indicate that people ENJOY learning and that this is apparent through their personal declarations of learning.

This is showing up in the MARVEL research through the Modes of Learning Inventory (Savage).

C. Looking for understanding of the BIG IDEAS

MARVEL is doing this through:

1. Narrative exit interviews which involve
 - Open ended questions
 - Fictitious newspaper article: *what do you think are the main messages that the [xxx] exhibition is trying to communicate?*
 - Narrative questions: *were there some things that you found particularly interesting in the [xxx] exhibition that you might tell other people about?*
2. Looking for behaviours that indicate learning is happening
 - The final way in which we are uncovering learning is through observation of behaviours
 - From the literature, the following major groups of behaviours which are indicative of engagement in learning have been gleaned (Bentley & Watts, 1994; Borun, 1996; Harlen, 1992; Hein, 1991; Vygotsky, 1978):
 - a. showing responsibility for and initiating their own learning;
 - b. actively involved in learning;
 - c. purposefully manipulating and playing with objects and ideas;
 - d. making links and transferring ideas and skills;
 - e. sharing learning with peers and experts;
 - f. showing confidence in personal learning abilities;
 - g. responding to new information or evidence.

These have been teased out to provide indicators of engagement in learning processes in a museum setting:

- a. showing responsibility for and initiating their own learning
 - know what they want to look for/ making choices
 - writing/drawing/taking photos by choice
 - talking to themselves
 - deciding where and when to move
- b. actively involved in learning:

- standing and looking/reading
- exhibiting curiosity & interest by engaging with an exhibit
- absorbed, close, concentrated examination
- persevering with a task such as drawing

c. purposefully manipulating and playing with objects and ideas:

- handling exhibits with care and interest
- purposefully 'playing' with exhibit elements/using hands-on exhibits as intended

d. making links and transferring ideas and skills:

- comparing exhibits
- referring to their prepared questions
- comparing/referring to previous experiences

e. sharing learning with peers and experts:

- talking and pointing
- pulling others to show them something
- willingness to be pulled to see others' interests
- group members talking and listening
- asking each other questions
- talking to adults / experts (e.g. teacher or museum staff)

f. showing confidence in personal learning abilities:

- asking questions of displays
- explaining to peers
- reading to peers
- comparing information with another source

g. responding to new information or evidence:

- evidence of changing views

- evidence of discovering new ideas

We are observing these behaviours by:

- Watching people
- Listening to people – asking them to carry a tape recorder so we can later listen to their conversation

D. Significance of this work

By investigating whether and how people are learning we can learn a great deal about the way exhibits and programs should be planned and designed.

Further References

Dierking, L. & Griffin, J. (1999). *Perceptions and values of learning in formal and informal settings*. Paper presented at the National Association for Research in Science Teaching Conference, St Louis.

Griffin, J., (1999). Finding evidence of learning in museum settings. in Scanlon, E., Whitelegg, E. & Yates, S. (Eds). *Communicating Science: Contexts and Channels*. The Open University with Routledge, London. pp. 110-119

Further Information

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