

What does learning look like?

Evaluating children's experience in
the Science Museum's Launchpad
gallery

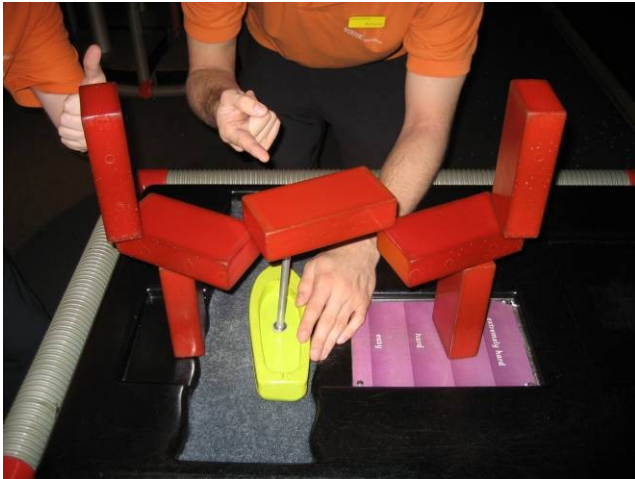
Teresa Teixeira

Audience Research and Advocacy

Summary

- The Launchpad gallery
- Video Labels: the Turntable
- How does Launchpad support learning
- How we recognized learning

Old Launch Pad



New Launchpad

“Launchpad inspires you to explore and question science and technology through hands-on experience of real phenomena in an environment that promotes curiosity”



The aims of the new gallery

- Appeal to 8-14 yr-olds
- Increase visitor engagement with exhibits and each other
- Promote curiosity
 - “what happens if...”
- Accommodate different learning styles
- Promote intergenerational learning



Evaluation process

- **Front end:**
understanding the challenges
- **Formative:** identifying barriers & removing them
- **Summative:** assessing success



Learning aided by

- Active involvement
- Discussion
- Adult engagement



An example: the Turntable



Problems

- Don't understand how to use
- Can't use without Explainer (instructing not explaining)
- Don't experience phenomenon
- Frenetic behaviour



Video Label

- Screen near exhibit
- Video footage: demonstrate use
- Formative research



Video Label

The video label

- Enabled correct use of exhibit.
- Attracted people to exhibit from afar.
- Promoted calmer behaviour.
- Provided clear role for adults, giving them confidence.
- Related to everyday life
- Was memorable.



Interpretation: Video labels

- Widely noticed & very popular
- Provide a clear model
- Encourage social interaction
- Improve exhibits



Supporting learning in Launchpad

- Exhibits with differing qualities:
 - beautiful
 - challenging
 - open-ended
 - physical



Supporting learning in Launchpad

- Successful engagement of adults
 - Multi-user exhibits – sharing, collaborating
 - Labels – particularly visual
 - Familiarity – links to National Curriculum and real life
 - Intuitive exhibits – successful interactions
 - Exhibits with a challenge – build self-confidence

Learning in Launchpad

Significant evidence of learning,
both for adults & children



Methodology

- Mixture of quantitative and qualitative
 - Exit questionnaires
 - Focus groups & in-depth interviews
 - Shoppertrack data & ScM profile data
 - Exhibit & interpretation observation & questionnaires
 - Long-term relationship with SEN school

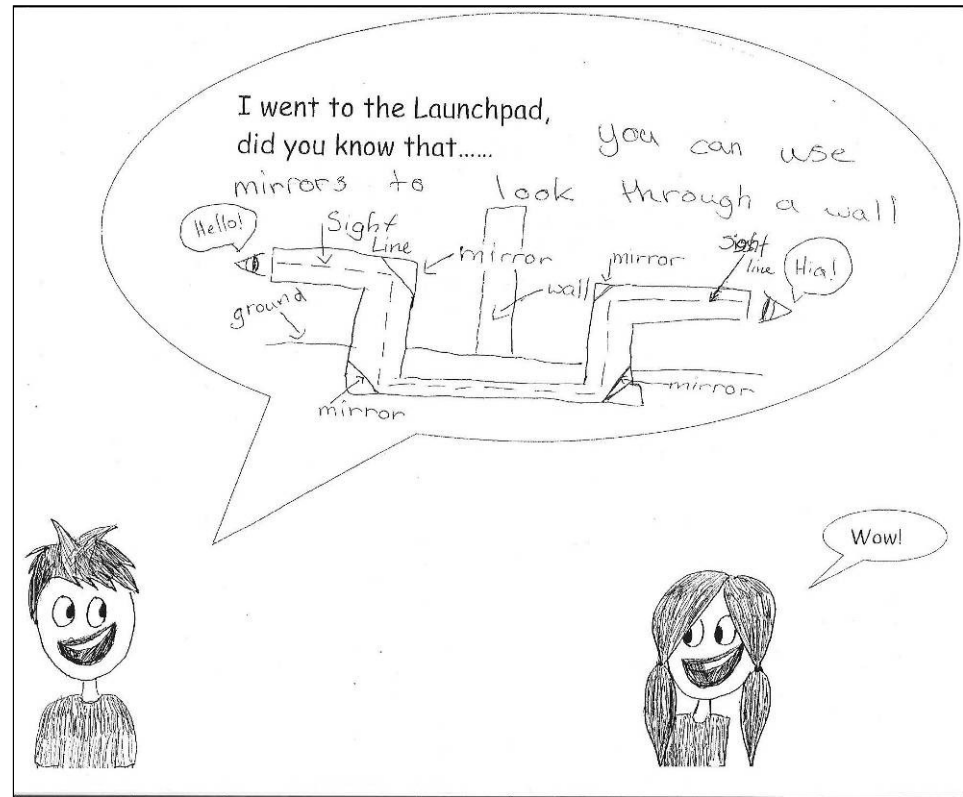
How do we recognize learning?

- Cognitive
- Affective
- Personal
- Developing skills
- Social



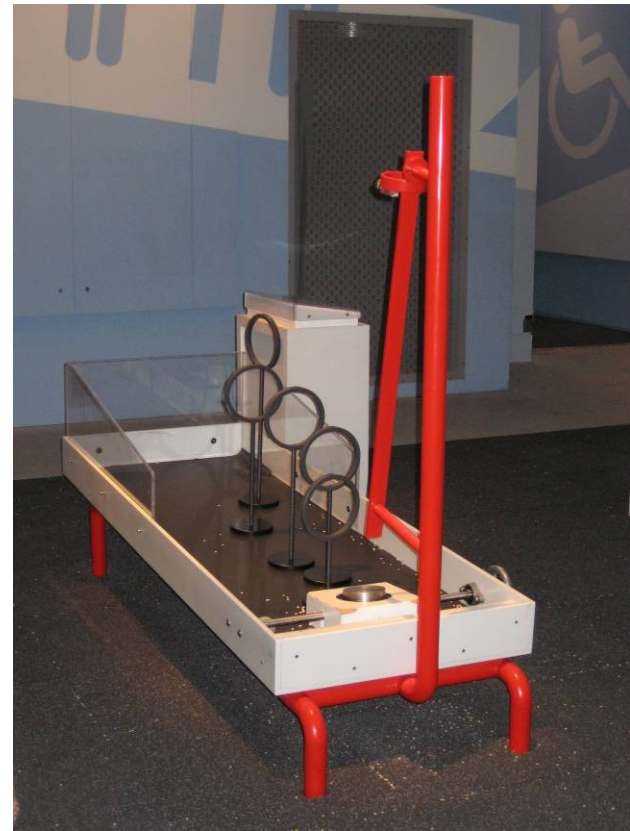
Cognitive learning

- Reinforcing concepts
 - Abstract concept – concrete experience



Cognitive learning

- Learn “How things work”
- Trialling & improving solutions



Affective learning

- Science can be fun, interesting and exciting
 - Contrasts with school experience (adults & children)



Affective learning

- Promotes science as relevant to 'real-life'
 - Particularly valued by teachers
- Promotes questioning



Personal learning

- Users are confident about approaching & not afraid to get wrong
- Parents are confident & share knowledge with children

"[I liked] the Light Table. I enjoyed having a go and experimenting, I didn't know the answer but that wasn't a problem"
(mother)



Personal learning

- Sense of achievement



Developing skills

- Challenged to think & work things out
- Experimentation & exploration
- Making predictions & testing them
- Extrapolating to real world



Social learning

- Sharing & discussing ideas, questions & experiences
- Parents support children's learning
- Interaction between unrelated users

[child 1] "If we got it wrong we said, 'What happened?'"

[child 2] "We talked about different things we could do to get it working"

Ensuring success:

- Audience research:
 - at all stages
 - Truly audience focussed – audience advocacy
 - Find ways to support learning
 - Identify how audiences were learning



*“It’s good for adults and children, you enjoy it together, there’s participation”,
(parent: exit questionnaire)*

“I was surprised actually how keen they were to do [the Circuits] and show me they could do them because they are never that into [Circuits] when we are doing them in school”. (teacher: focus group)

Any questions?

teresa.teixeira@nmsi.ac.uk

