

Identifying the Key Aims of Science Shows

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Science shows are widely used in **informal learning contexts** to communicate science



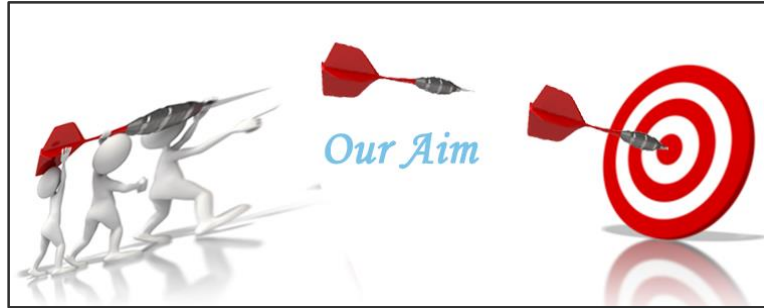
Science shows,
“done well, can lead to:
**increased learning, improved
cognitive and affective
outcomes, and
behavioural changes**”
(Austin and Sullivan, 2019)

In October 2023, **CERN** will open a new science centre, **Science Gateway**



Science centres “provide
memorable learning which can
have a **lasting impact** on
attitudes and behaviour” and can
“**increase visitors’ knowledge
and understanding of science**”
(Ecsite-uk, 2008).

To **maximise the potential** of the science shows, it is necessary to:



Define the key aims



Evaluate effectiveness

Interviews with two expert groups

Senior CERN employees

- 10 senior CERN employees, linked to Education and Outreach

Science show presenters

- 10 expert practitioners from around the world
(Australia: 1; USA: 1; South Africa: 1; Switzerland: 1; UK:6)

What do you consider to be the key aims of science shows?

Participants prioritised **13 potential aims** using a **MoSCoW prioritisation grid**

MoSCoW Prioritisation

Must have...

Should have...

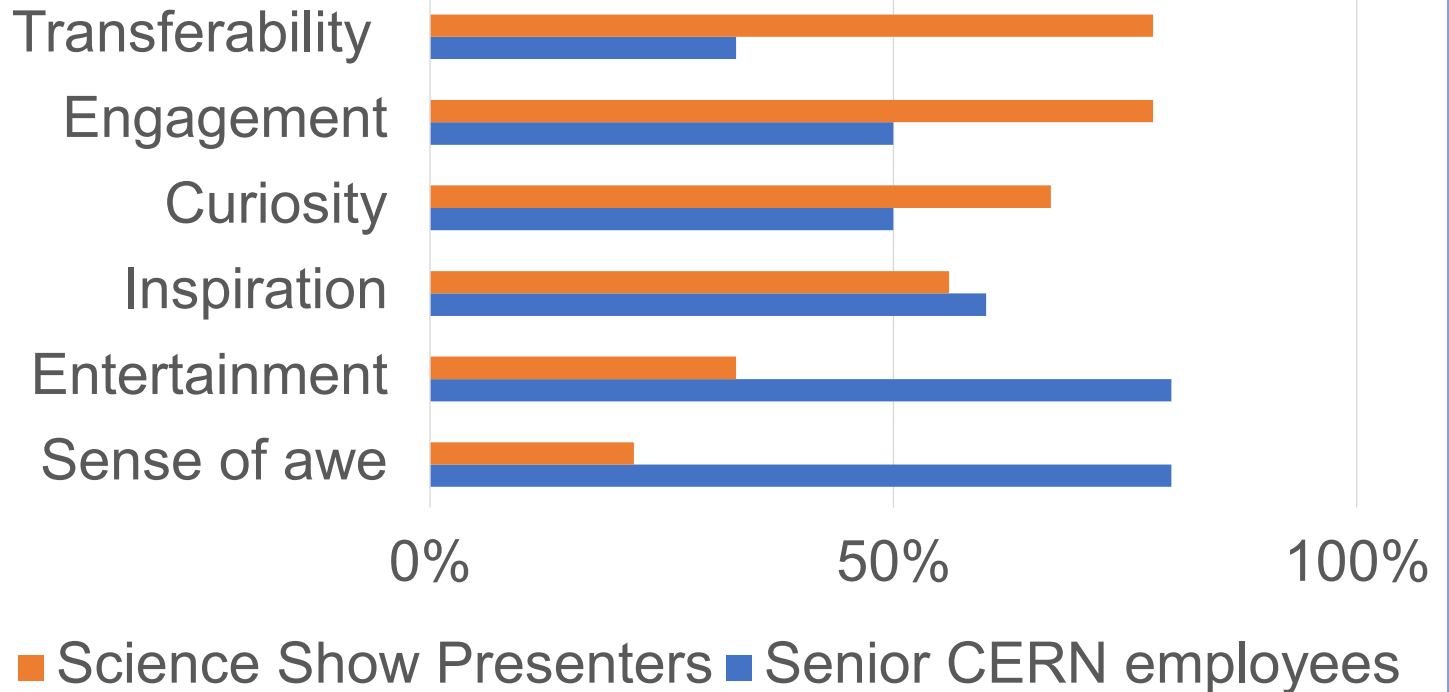
Could have...

Would not have...

Transferability

Seeing science as relevant to everyday life

Aims most frequently selected as 'Must Have'



The preliminary results suggest that **the two groups prioritise aims differently.**

Senior CERN employees
Sense of awe
Entertainment

...want to **entertain the audience**
and provide a 'wow' factor

It's about this
awe-inspiring
experience

For me a show is a kind of
like bang, pop, whiz, wow

It has to be entertaining to be engaging, and to
initiate that curiosity and create the memory.
So entertainment is an ingredient that's essential
to make it work.

Science show presenters
Transferability
Engagement
Curiosity

...want to **engage the audience** and show them
how **science relates to their everyday lives.**

We try to have what I call
an emotional 'woah', not
just a visceral 'wow'

I'm one who kind of
flinches at the idea of
being an entertainer

The awe is something we feel a bit torn about
because although it's a strong emotional hook, the
risk [is that] if you're awe-inspired by something, it
puts a gap between you and the thing

This research project will:

- **Inform the literature** on the key aims of science shows
- Increase the **positive outcomes** for audiences
- pave the way for **future evaluation** of science shows



Thank you for listening