

creating shows – an art or a science?

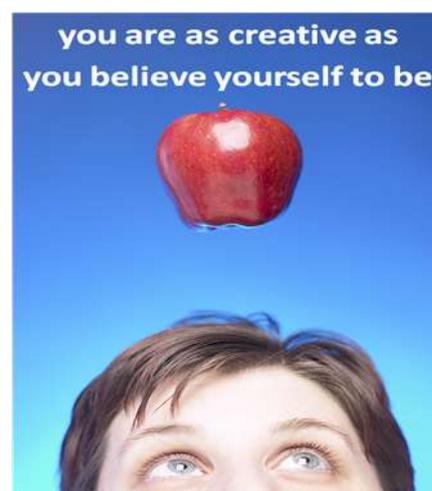
Paul McCrory, learn differently

As science communicators we sometimes ignore how creative our jobs require us to be. Every time we develop a new show or programme we can use a range of creativity techniques to stimulate and then evaluate new ideas.

This article is based on notes from a session that I delivered at the *BIG event 2007*. We'll briefly consider some general principles behind being creative, and then explore some key issues in developing interactive shows.

being creative

- creativity can be defined as producing ideas that are novel and appropriate.
- you are as creative as you believe yourself to be – research shows that simply by recognising how creative you really are your creativity will increase.
- give your self time to be creative – be patient. This is one of the biggest differences between people who consider themselves to be creative and those who do not.
- experience as much as possible – expose yourself to different environments and ideas – feed your creativity.
- adapt and combine existing ideas – it doesn't have to be original, just original to you. If you enjoy performing a demo that is original for you this feeling will be contagious for the audience.
- there are two main phases in creative process – the imaginative **mining phase** (explorer and artist roles) and the practical **refining phase** (judge and warrior roles).
- stages within each phase:
 - **explorer** – research as widely as possible for the raw material to make into something new;
 - **artist** – generate new ideas with the fresh perspective of a beginner – create as many ideas as possible without letting your “inner critic” edit them. Allow your subconscious to incubate new ideas based on the raw material.
 - **judge** – evaluate your ideas and decide which ones to implement;
 - **warrior** – a key practical part of creativity is turning your ideas into reality – set deadlines; break the idea down into parts; ruthlessly refine and improve it; simplify it.
- lower your expectations – the “**rule of nine**” – for every ten ideas you have, nine won't work. So the process of failure is vital to the product of success.



- record all your ideas - write them down in notebooks; audio record them; or record them electronically. You will not remember some of your best ideas unless you record everything.
- establish creative environments - everyone creates in slightly different ways and in different places. Discover which environments and times fuel your creativity the most and exploit them.
- protect your creativity from negative people (including your own self-doubt) - it is one of the most precious parts of you. Think of your creativity as a child - don't share the child with people who are negative or jealous.
- synchronicity – you appear to start noticing solutions to a problem simply because you are looking for them subconsciously – you are more receptive to spotting the solutions round you.
- wear your “**presenter glasses**” all the time – see the inspiration all around you everyday no matter what you are doing.



creating shows

The issues we are going to look at now are not intended to be a “magic formula” for writing shows. We will each have a particular way of developing shows. Hopefully though they will highlight some processes I’ve found useful in creating shows. Although aspects of the “show writing” process may seem logical and linear on paper, the reality is of course almost always iterative and very messy.

decide your limits

Setting yourself some practical limits before you create shows can help to focus your creativity towards outcomes that are useful to you. Strangely, rather than limit us, this process seems to make it easier for us to start generating relevant ideas. Typical constraints to consider: performing venue; presenting staff available; development budget; topic; audience profile; National Curriculum connections.

what kind of show?

Consider which format will suit the show best in terms of these constraints. These are some of the types we identified in the session, supplemented with some of my own suggestions:

Standard demo show	Stand-up show	Construction show
Storytelling show	Slapstick	Topical show (eg Christmas)
Quiz show	Drama (in character)	Pantomime
Game-based show/ competition	Audience-led	Posing and answering questions/ challenges
Mystery to solve	Debate	Magic show
Musical	Chat show/ interview	Circus show

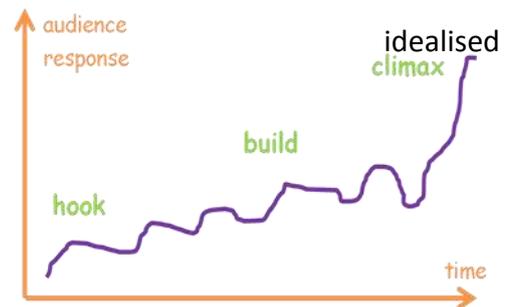
Puppet show	Slide show/multimedia-led	Mime and physical theatre
Cartoon show	Documentary-style	Forum theatre

marketing a show that doesn't exist

In an ideal world we would be able to write the marketing material once the show had been developed and piloted. In the real world though, in my experience, we often have to “sell a show that doesn't yet exist”. Some of the key ingredients to include in marketing at this stage are: appealing title; stunning image of a signature demo from the show; engaging write-up; impressive testimonials (if relevant).

hook, build and finale

Most effective performances are based around an structure where the audience reaction gradually builds throughout the show towards the inevitable climax. The dips are important – you have to “let the audience go” occasionally. For example, quieting them with a story before the exciting finale creates a bigger emotional contrast.



know what you are talking about

Immerse yourself fully in researching as much as you can about the topic. Can you conduct some formative evaluation with target audience – to explore what interests them about the topic and what they know already? Types of information I look for at this stage include – anecdotes and stories; applications and examples; amazing facts; puzzles; frequently asked questions; myths and misconceptions; images; jokes; analogies; etc

know your demos

It pays to know as many demos as possible so you can draw upon a large pool for each show. Collect and store your demos carefully. There are many different sources of demos easily available nowadays:

Demo books	Internet – mailing lists and discussion forums	Magic catalogues
Popular science books – for adults & children	Observing and talking with other presenters	Variety performers eg magicians, circus
Science journals	Everyday life	Bargain shops
Popular science magazines	Science education catalogues	Pet shops
Popular science TV programmes – adults & children	Science education conferences and festivals	Common interests of children – latest movies and books etc
Internet – web sites	Toy shops	Sports catalogues
Internet – online videos	DIY shops	Gadget shops

I always select more demos than I will need for the final show - I know some will drop out for practical reasons – time to develop; cost; couldn't get to work; too similar in plot to another stronger demo in show; etc. You have to be ruthless as you pare down the final selection of demos.

vary your presentation plots and storylines

How each of your demos will appear to the audience depends upon the dramatic structure behind the presentation plot (eg “presenter in trouble”; physical challenge to a volunteer) and the storyline or context you give the demo (eg a demo that look like a magic trick to explain). Just like a good movie or novel you need to vary the way your demos build and release tension throughout the show and the storylines you use.



it seemed really easy in the book

We've all had that frustrating experience of trying to get the simplest-looking demos to actually “work”. There is a lot of effort in this stage of developing shows. It is easy to underestimate all the pottering and tinkering required to build the right prop or get the precise effect that you need.

give demos a twist

Work to give classic demos your own twist. A useful list of “trigger questions” to help you think of some of the ways you can twist demos is the SCAMPER mnemonic:

- S** **substitute** one item for another
- C** **combine** demos or skills
- A** **adapt** prop/ storyline/ plot
- M** **magnify/ minimise /multiply** – scale up/ scale down/ repeat
- P** **put to other uses** – use prop in a different way
- E** **eliminate** prop or patter
- R** **reverse/ rearrange** – reverse or rearrange the order

think “routines” rather than “demos”

demo + plot + storyline + “bits of business” + personality = routine

Most magicians suffer from “trick fix” – they are constantly searching for the next new trick to transform their shows. As science presenters we often experience “demo fix”. The demo is important, but in reality it is almost always the other elements of this equation – the plot, storyline, “bits of business” and the performer’s personality – that engage the audience most. “Bits of business” are those playful interaction techniques we all use to connect with and hold the attention of the audience eg – building up suspense at the end of a demo; making props come alive; having the audience voting with their hands; etc.

he steals, you borrow, I get inspired

“Stealing” demos is one of those irregular verbs. This is simply my perspective on this thorny issue – obviously I’m not offering legal advice here. I think we all borrow and adapt demos used by other presenters, but it is often the routines that evolve (the bits of business and audience interaction around the demo) that are the really “valuable” parts of a show. I operate from a view that I always try to ask other presenters if I feel that their demo or presentation twist is unusual before adapting it for one of our shows. In most cases I find just seeing a classic

“public domain” demo performed live convinces me how we could do it our shows and I don't feel under any need to ask permission from the presenter. I've usually found other science communicators very happy to share demos and ideas with me and I try to do the same when I can. With other performing arts, however, such as magic or circus, performers are often very wary of other people "stealing" their entire routines. It may come to this some day in science presenting, but I feel the longer we can all delay this day the better.

outlines vs scripts

I basically write a show in one of two ways:

1) **writing an outline** (demos; main presentation plots and storylines; key concepts to communicate) - this outline then gets “fleshed out” over the early shows and evolves into a solid show.

2) **scripting the show in detail** before piloting (listing actions; patter; multimedia) – I use this approach when I'm working with topics that I am not familiar with; when I'm telling a tightly structured story; or for external clients who have commissioned shows. The script will always change, however, in light of the audience response in early shows.

find a place to be bad

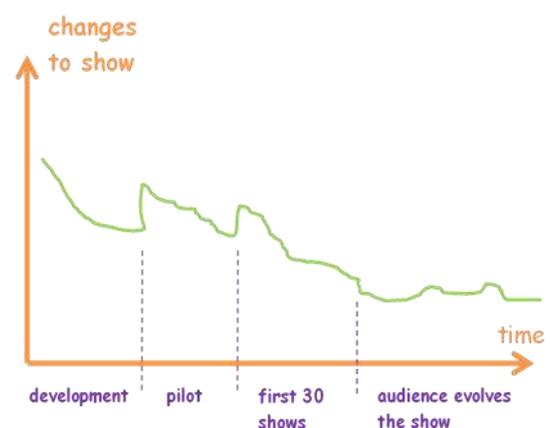
- practice the mechanics of the demos first so you are confident about performing them;
- then rehearse the demos with the patter and “pretend” interactions with an audience;
- internal review - if possible find colleagues to give you detailed feedback;
- find a non-paying, friendly audience to develop your routines and the transitions between demos.

Piloting a version of the show as early as possible can eliminate a lot of unproductive worries and doubts – and identify the real problems which you ignored.



evaluate and evolve

I always find the first 20-30 shows vital in developing the bits of business and routines with a real audience. There is no way around this – you have to work through these difficult early shows and learn from them very carefully. Some shows fall into place very quickly, others take a bit longer to mould. My philosophy is to do as many shows as you can. This allows you to continually evolve and tweak the show. The audience is your best director if you listen to them carefully. When things “go wrong” in shows wonderful ad libs and bits of business can result. These are the “**happy accidents**” that you need to remember and build into future shows.



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