

Authenticity in science communication

Authenticity can be defined as a true representation of a person, object or situation. In communication, it often refers to the perception of the communicator, the content or a message as being real or true. It is recognised that authentic SciCom increases the transparency of science, supports credibility and fosters trust in science. Establishing perceptions of authenticity is therefore a powerful tool for gaining trust and having an impact on an audience. But where can authenticity come into play?

First, there is the question of the authenticity of the content itself. Are the materials, the situation or location authentic? An audience that sees or touches a real object, rather than a replica or model, can often be fascinated and engaged much more easily. For example, the importance of authenticity in the appreciation of museum objects has been shown in a study of children's responses to authentic fossils compared to replicas ^[10]. Similarly, audiences often appreciate seeing real cells under a microscope, or even visiting a lab with real researchers, rather than watching a video. Of course, you cannot bring everyone or any size of audience to every location. Think about how you can adapt the use of materials or the location to suit your objective, activity and audience! Also, not everyone will value authenticity to the same degree. Furthermore, it is clear that a science show does not need an authentic location and that it is always a staged event. However, integrating authentic materials, machines or scenarios can be an option. The use of authentic real-life scenarios also makes it possible to build a bridge between school science knowledge and everyday knowledge and is especially important for making a task meaningful for pupils in an educational context ^[11].

A second important point is the authenticity of the communicators and protagonists. Here, authenticity describes the impression that these people are not influenced by external factors and present themselves as they really are. The key to reaching the audience is to avoid a teacher-student perspective, to break the emotional and

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Horseshoe crab
found 1958, Mexico



Horseshoe crab
found 1958, Mexico (replica)

intellectual distance to the audience and to be recognisable as an individual with own values and interests. It has also been shown that first-person communication increases authenticity compared to third-person accounts ^[12]. However, the aforementioned aspects may hurt the perception of a neutral scientific report, and the communicator may need to consider this depending on the goal of the communication efforts. Authenticity and eye-level communication are cards that can be played easily during face-to-face communication or events, but also in social media formats or podcasts. However, web video formats and podcasts are often artificial in the sense that they are scripted or staged, and this can affect the perception of authenticity. For example, it is clear that a regurgitated, well-prepared text will be perceived as less authentic than an unscripted response. In these types of media, the conscious omission of staging or over-scripting, as well as careful post-production, can therefore support perceptions of authenticity ^[13].

One of the many reasons why researchers should contribute to SciCom efforts is that they can easily establish the perception of authenticity if they engage in communication about their own research. Even if parts of the audience do not understand all of the scientific details, they can still be captivated by the communicators' fascination and passion for a topic.



Recommended reads:

- ♦ Saffran et al. (2020), *Constructing and influencing perceived authenticity in science communication: Experimenting with narrative*. PLoS ONE 15(1): e0226711. <https://doi.org/10.1371/journal.pone.0226711>
- ♦ Åkerblom & Lindahl (2017), *Authenticity and the relevance of discourse and figured worlds in secondary students' discussions of socioscientific issues*, Teaching and teacher education 65: 205-214, <https://doi.org/10.1016/j.tate.2017.03.025>
- ♦ van Gerven et al. (2018), *Authenticity matters: Children look beyond appearances in their appreciation of museum objects*, International Journal of Science Education, Part B, 8:325-339. <https://doi.org/10.1080/21548455.2018.1497218>