The Speed of Sound

The Speed of the sound was co-produced by NHK/ NHK Educational Corp, Tokyo, Japan and Al Jazeera channel. It is designed as a new science edutainment series to show the rules of nature through spectacular experiments that will make children understand the theory of science by seeing it in action. In the hope of stopping children moving away from science, the huge scale experiments are conducted in an easy-to-understand manner and presented in an entertaining way to attract children's interest. No CGI, just grand-scaled experiments. Using high-tech cameras and shooting expertise, the series comes up with interesting ideas on how to visualize various scientific phenomena. In this episode, the program challenges the question: How fast does the sound travel? 86 people make a straight line of 1.7km in length. Each person is given a flag and raises it when they hear the sound from the 0 km point. Different sounds and different level of sounds are used to compare the differences in the speed. The experiment also succeeds in visualizing the invisible speed of sound.

The Speed of the Sound was one of the PRIX JEUNESSE INTERNATIONAL 2010 finalists in the 7-11 Non-Fiction category.

Figure 1: **Experiment with the sound.**

Figure 2: **Experiment to calculate the speed of the sound.**

The international experts had mixed reviews about the program. Some liked the theme of the program. "Well done: a good idea to present the speed of sound – to see the speed of sound – was something strange. I want to see the speed of sound, but we could see it – it was so beautiful also for television" (male expert, Poland). "I loved it very much" (female expert, UK). They found the program very creative and artistic. "I thought it was a clever way to visualize the sound. I thought it was really interesting how you did that. I also like how it was made so that you could end up anywhere, but it didn't feel oppressive. It felt like it was true: the way you did it was very creative. I thought it was beautiful just to watch. And you learned!" (male expert, Canada).

They also appreciated the theme of the program that was based on science and technology. "I think it is also very good to see these kinds of programs, because we know that natural scientists, physics, and chemistry are not so popular nowadays for kids. These kinds of programs can make children to understand, and to get curious about it" (female expert, Sweden).

Figure 3: **The mission of the experiment is to calculate the speed of the sound.**

A male expert from Qatar shed light on the production of the program. "This is only one episode. There are more. In fact, this program is a co-production between my company and NHK. I don't have a lot of information about it, but I know it was tiring; it is a lot of work gathering all these people. It is an expensive product to do.

Figure 4: **The experiment is with 86 people.**

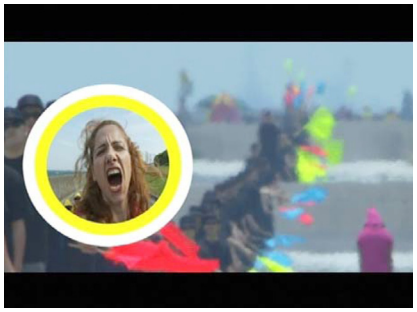

Figure 5: **Experiment with human voice.**

Figure 6: **Experiment with instruments.**

Making science experimental is not really easy. But, it is a collaboration of a lot of teachers and producers in the work – a lot of manpower." A female expert from Israel further elaborated. "That is why the characters do not have a Japanese face. It was a little bit different from our regular programs. They tried to make this series without any host or something similar. Then maybe kids could focus on just the content, and then they can understand with computer graphics. So, it was kind of experimental for us as well."

Few thought that it was long. "I think it was a bit slow, boring, too long" (female expert, Brazil). They thought that the shorter version worked well for the kids of the category of 7-11. Another expert commented: "It is a huge production – a new way. I would make it a little bit shorter. It was too long" (female expert, Israel). Another expert found it boring. "I was disappointed by Discover Science, because I thought the idea was really interesting of visualising the sound, but it just felt like it went on way too long, and it just started to get dull" (female expert, USA). However, a female expert from UK disagreed with them and explained, "But, sometimes there is so much animation and graphics to explain things. When you get something real, like the flags, you actually take notice of it more. It was well done, and it was beautifully shot – those long lines and everything."

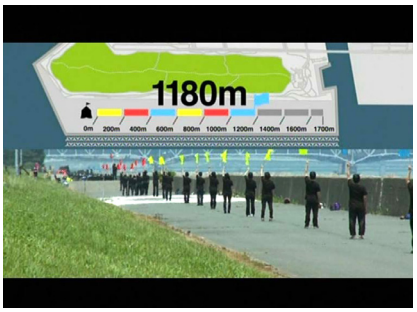

Figure 7: **Sound covers distance equally whether it travels through human voice or symbols.**

Figure 8: **The experiment to test the distance covered by sound was a success.**

Screenshots from *The Speed of the sound* © NHK/ NHK Educational Corp

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