

# “When he sank, it went blub blub”

## SOUND AND RECEPTION

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**An IZI study has investigated how much a different use of music and sounds in the same short film causes different effects in children.**

Sound and music play an important role in series and films, especially for children. However, their significance tends to be unconscious. When school pupils (year 4) think out loud about a film, they focus on the spoken language and the actions of the characters. They scarcely mention music and sounds, and almost never use the auditory elements of the film to reconstruct narrative connections (Koppenhagen, 2022). However, the observation and analysis of situations of reception have proven to be a valuable research method. Valkenburg was able to show that children use sounds as cues telling them when it is worth looking at the screen (Valkenburg, 2004).

In 2011, an IZI study series examined how reactions to the same images changed when a different soundtrack was added. If different music was added to the same clip – e.g. the melting of a chocolate bunny with a hairdryer – this gave rise to different possibilities for reception. If the information conveyed by image and sound went in the same interpretive direction, these elements reinforced each other. If the music accompanying the melting chocolate bunny was dramatic and sad, then some children at least showed sadness. The auditory design inspired an attitude of sorrow and concern in the audience: the children felt empathy. In this study at least, no comments or other reactions were observed that indicated a humorous attitude towards the content. This

changed if the music was jolly (as in the *SpongeBob* ending theme). This allowed an ironic reading of the melting of the bunny, and the children made various ironic comments. In this study and others of its kind, it has become clear that music and its mood have a major impact on reception (Götz et al., 2012; Bulla & Götz, 2011). Gunter Kreutz links this with the processing speed of the brain. Since it takes considerably longer to process images than sound, this “primes” the image in its meaning. The brain activates certain familiar interpretive networks, thus contextualizing the image (Kreutz, 2011).

But what happens with sounds or music when the music is not used to support the content, but more or less runs through it? This is the starting point for the recent IZI study, which examines the importance of sound design using 3 versions of the same short film from the series *The Day I Became Strong* (*Starke Geschichten aus aller Welt*).

### STRONG STORIES FOR STRONG CHILDREN

The series *The Day I Became Strong* (*Starke Geschichten aus aller Welt*), a coproduction with 16 countries worldwide, tells seemingly small stories in which children discover their own strength and resilience. These are biographical stories of children, adolescents, or even adults, which were written during the workshop series “Strong Stories for Strong Children”, or in the Storytelling Club, using the prompt: “When did you realize that you were strong?” The stories were then used to write scripts which adapt the stories to the present day, make them appealing to children, and focus deliberately on moments that built resilience. One of these stories is episode 5 from Cuba: *Lessons Learnt from the Sea* (Götz, 2018).



Ill. 1: In *Lessons Learnt from the Sea* Alejandro from Cuba tells his story how he nearly drowned while surfing

## CONTENT OF THE EPISODE

In this episode, Alejandro from Cuba tells his story (Ill. 1 and 2). Alejandro loves surfing the waves on the coast of Havana, and is very good at it. Once he nearly drowned while surfing: he fell off his board and his leg rope got caught on a rock underwater. By keeping focused with self-talk (“Don’t panic!”), he recognized the problem and freed the rope. But when he got to the surface the board hit his head and he sank down, stunned. Once again, he was able to calm himself (“Don’t panic!”) and deployed an adaptive coping strategy (Fröhlich-Gildhoff & Rönna-Böse, 2018):

“Wait till your feet have touched the ground. Look up to the sun and push off as hard as you can.” This enabled Alejandro to save himself, and to paddle to shore, exhausted.

The short film shows a spectacular underwater scene, in which the boy pushes off from a depth of about 10 metres and finally makes it to the surface. The film was shown at several children’s film festivals (including New York and Toronto). Each time, analysis of the reception has shown how strongly children empathize with the boy from Cuba and hope that he makes it.

For the present study, the film was given a new soundtrack, and played to the participating children in 3 different versions:

1. the original;
2. a version with virtually constant music (a “carpet of music”);
3. a version with strategically placed sounds and music, created by a sound designer.

The research aimed to answer the following question: what happens if the episode is set to a different sound design?

## METHOD

In total, n=99 children aged 6 to 11 watched one of the versions each and were filmed doing so. The children were then questioned in individual interviews, with a thematic focus. A sample of this size cannot claim to make any universally valid statements, but it can serve as an exploratory study and show certain tendencies.

Version 1 (the original) was watched by n=35 children (average age: 7.9 years); version 2 (with constant “carpet” of music that did not always match the action) was watched by n=33 children (average age: 7.7 years); version 3 (with



Ill. 2: Appealing to children: a boy skilfully performing a visually spectacular sport

a professional sound design) was watched by n=31 children (average age: 8.1 years).

### Overall impression

The film was very well received by all the children, even the version with the constant “carpet” of music, which was slightly irritating for adult ears. When watching version 1 (original soundtrack) and version 3 (with sound design) they sat in front of the screen in a state of excitement and tension (more so for the latter). While watching

version 2 (constant “carpet” of music) they were sometimes excited, but there were also brief moments of inattention, in which they glanced sideways etc.

**Conclusion 1:** Generally speaking, if there is an exciting plot with a child at its centre, telling his or her own story, accompanied by spectacular images, then this cannot become unappealing, even with poor use of music.

### What was particularly appealing?

When asked “What did you especially like about the film?”, the most common answer children give – regardless of which version they have seen – is “the

surfing bit” (Matteo, 6, version 1). What they particularly like here is the boy’s skill: “How well and how beautifully he surfs” (Samira, 8, version 2) and “Seeing him surfing in the waves” (Manuel, 7, version 3). Here the children are referring to the beginning of the episode, where the boy from Cuba explains a few basic principles of surfing (Ill. 2). A boy skilfully performing a visually spectacular sport appeals to all children, regardless of the sound design – as long as this at least provides enough background noise (waves) to make the scene seem authentic.

### Excitement

The aspect mentioned second most often by the children who saw version 3 (with sound design) was “the excitement” and “the action!” The older children in particular mention these as their favourite elements.

- “Well I like the exciting bits, so more the part towards the end. (...) When he got caught.” (Denise, 10, version 3)
- “I thought it was really exciting when he got caught and couldn’t come up, I thought that bit was great.” (Sheila, 10, version 3, Ill. 3 and 4)

In the case of version 1 (original), 3 children mention that they liked the fact “that it was a bit scary, because the boy fell down” (Paul, 8, version 1), and that “there’s also a bit of excitement in there” (Daniel, 10, version 1). The children who watched version 2 (constant “carpet” of music) do not mention such moments of tension or excitement when asked what they liked best.

**Conclusion 2:** Generally speaking, professional sound design is linked with more tension and excitement, while constant music tends to impede the moments of excitement and emotional involvement that are inherent in the film.

### What children remember from a film

In the film, the boy tells viewers about the dangers of surfing. However, only the children who watched version 3 (professional sound design) mention these dangers: “That he said you should be careful when you go surfing” (Katharina, 10, version 3). The boy’s adaptive coping strategies are also only mentioned in the interviews relating to version 3: “That he told us what to do if you fall off your surfboard, for example, and if you’re nearly knocked unconscious by your own surfboard” (Gabriel, 10, version 3).

In contrast, it is striking that the children who watched version 2 (constant



Ill. 3 and 4: The children were excited when the boy’s rope got caught on a rock

“carpet” of music), when asked what they liked best, are more likely than the others to begin with a vague answer (“everything”), and only mention something specific after further questions.

**Conclusion 3:** Generally speaking, professional sound design accentuates and facilitates the perception of individual important messages, while this accentuation probably does not take place if there is constant music.

### Assessment of the danger of the situation shown

When asked how dangerous the situation was for the boy, all the children assess it as dangerous or very dangerous, but those who have watched version 3 (professional sound design) see it as most dangerous (Ill. 5 and 6).

In order to qualitatively assess how children perceived the boy’s situation in the different versions, the answers

to the questions “What was the film about?” and “How did the boy in the film feel?” were scanned for the words “die”, “death”, “dead” and “drown” (in all possible grammatical forms); these mentions were then counted. During the moment of danger in the episode, the boy’s voice-over says: “I couldn’t get any air. I thought I was going to die.” Nearly half the children who saw version 3 (professional sound design) include the terms “die”, “dead” and “drown” in their descriptions, much more often than the children who saw the other versions.

**Conclusion 4:** In general, children are better able to perceive the key messages of a story with a strategically applied sound design.

### Do children notice sounds and remember them?

At the end of the interview, the children were explicitly asked about noises



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Ill. 5 and 6: The situation when the board hits the boy's head is considered as dangerous by all children

and sounds that they might still remember. "Try to remember the music or the soundtrack of the film. What do you remember? Describe it to me, or show me. Feel free to make noises or hum or whatever." In the analysis phase, the researchers counted how many children described general sea sounds (waves, water, splashing, wind blowing, seagulls, ...). Of the children who had watched version 3 (professional sound design), half mentioned sea sounds, in contrast to just a third of those who had watched version 2 (constant "carpet" of music).

In versions 1 and 3, the children were definitely able to remember sounds: "When he sank, it went blub blub" (Nora, 6, version 1) or "I think, with the water, it really did go splash. Really, the waves, you could hear the waves" (Timon, 7, version 3).

In version 2 (constant "carpet" of music) things are imagined, such as

"water swooshing, birds" (interviewer: "Was there music too?"; response: "No music") (Theresa, 7, version 2). 1 in 4 children who watched version 2 (constant "carpet" of music) say that they cannot remember any music, sounds or noises.

**Conclusion 5:** Children tend to remember sounds better when they are not accompanied by constant music.

### Do children notice the music and remember it?

We asked the children whether they could remember the music in the film. Generally speaking, for versions 1 and 3 the children's descriptions coincide with the music actually used, e.g.:

"So at the beginning, when he was still having fun, the music was more cheerful – it sounded a bit happier. And then once he went underwater, it got a bit softer and not so happy any more. At the end it was

actually happier again – because he'd made it, because he was back on dry land again." (Greta, 9, version 1, original)

When children who have seen version 2 (constant "carpet" of music) describe their recollection of the music, they often find it difficult to express this in words. They use sound images such as "So dingsig" ["Sort of thingy"] (interviewer: "Can you make the sound for me?"), "So dingel" ["Sort of dingaling"] (Dorothea, 7, version 2, constant "carpet" of music).

Some of the older children mention the potential emotion of the music, and describe their impression that this is contrary to the action:

"But in this dangerous situation there was still this funny music. And I just found it a bit unsuitable. Because [in] such a dangerous situation, they normally use (...) dangerous music." (Svenja, 11, version 2 constant "carpet" of music)

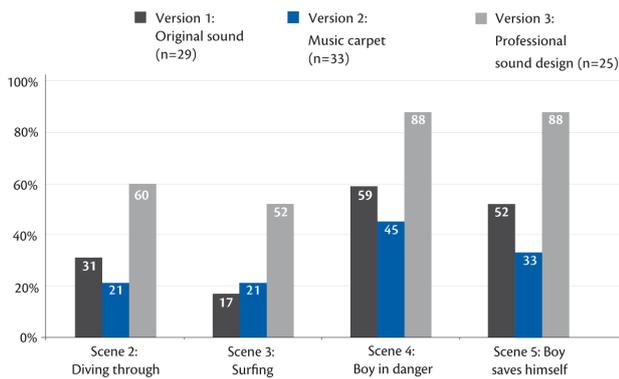
Children tend to describe their recollections of music that fits the action by describing the emotionality that is potentially inscribed in it. If, however, the music is contrary to the action, then younger children try to describe the music in verbal images, while the older ones mention this disparity.

**Conclusion 6:** Children perceive music as an important element and can describe it in terms of the emotion inscribed in it, or (in the case of older children) point out its unsuitability.

### Is there evidence of tension and excitement during the film viewing?

In addition to the interviews, the recordings of the viewing sessions were analysed.<sup>1</sup> The first step was an exploratory inspection of the recordings. They were then evaluated for categories such as "excitement/tension" ("Spannung"), with special attention to signs of emotional involvement ("Mitleben" and "Mitfiebern") (Ill. 7). For this, the film was divided into 6 scenes. For each scene, the reactions

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Ill. 7: Proportion of children who clearly show excitement and involvement during the scenes

of the children were noted individually. Every emotion that went beyond normal attentive watching was noted.<sup>2</sup> Care was taken to record only reactions that related to the content or were influenced by it. Clear tendencies became apparent, especially when it came to involvement.<sup>3</sup>

In version 3 (professional sound design)<sup>4</sup>, the majority of the children show signs of intense involvement. In some cases their mouths are open, and in the most exciting scenes their lips are pressed together, their fists clenched, their fingers pressed together, and exclamations such as “Boah!” (“Wow!”), “Kraass!” (“Awesome!”/“Oh no!”) or “Scheiß!” (“Shit!”/“Oh no!”) can be heard. In version 1 (original) this is much less the case. In version 2 (constant “carpet” of music) even fewer children show signs of excitement. Fewer children experience intense involvement, and some are even slightly bored.

**Conclusion 7:** Professional sound design tends to allow more emotional involvement.

## SUMMARY AND CONCLUSION

In general, professional sound design allows a higher degree of emotional involvement and makes it easier for children to perceive individual messages and key sentences in a story. In

the subsequent interviews, children are also in a better position to recall specific sounds and remember the music in its emotionality. If the film only offers the original soundtrack, with dramatic music at some points and a few (obvious) sound

effects, the children’s involvement is not so continuous and their recollection of the story’s message is not so strong. If the action is more or less continuously accompanied by music, older children at least notice this as a discrepancy, are therefore less involved in the story, and are less able to perceive the main messages and sentences. An exciting story, in which a child takes centre stage and extricates him or herself from a difficult situation, cannot be rendered completely unappealing even by inadequate sound design, e.g. inappropriately selected and continuous music. Yet it takes professional sound design to unleash the real power inherent in the story – in this case the boy’s resilience and the chances of fostering resilience in the audience. Not every story requires so much excitement and so many moments of danger. The excitement or tension inscribed in a film or programme and the emotional involvement of the young audience always lead to a balancing act, requiring careful deliberation from the producers. But what this study clearly shows is that it is worth thinking about music and sound design and investing in professional post-production. Because the goal of quality media services for children should be to enrich young viewers emotionally and cognitively with a powerful story, and sound design has special potential here. ■

## NOTES

- <sup>1</sup> The reactions of some children were not clearly discernible, or we did not have permission to film them, so this analysis refers to n=87 children.
- <sup>2</sup> The idiosyncrasies of the children were also taken into consideration here. For example, if a child had his/her fingers in or around his/her mouth throughout the recording, this was not sufficient to be taken as a sign of excitement at a specific scene.
- <sup>3</sup> Emotional involvement and tension were coded in facial expressions: wide open eyes/mouth, lips pressed together, etc.; gestures of excitement/involvement: rubbing/moving/wringing hands, clenching fists, pressing fingers, etc., as well as comments/exclamations, e.g. “Boah!”, “Awesome!”, “Shit!”, “Oh!”.
- <sup>4</sup> Many thanks to Christian Riegel (Tonbüro GmbH, Berlin) for creating the sound design for version 3.

## REFERENCES

- Bulla, Christine & Goetz, Maya (2011). Wenn der Klingelbusch 3-mal unterschiedlich klingelt. Ein Rezeptionsexperiment mit unterschiedlicher musikalischer Vertonung. *TelevIZion*, 24(1), 42-45.
- Fröhlich-Gildhoff, Klaus & Rönnau-Böse, Maïke (2018). What is resilience and how can it be promoted? *TelevIZion*, 31(E), 10-14.
- Götz, Maya (Ed.) (2018). The day I became strong. Strong stories for strong children from around the world. München: IZI.
- Götz, Maya, Schwarz, Judith, Mendel, Caroline & Stukanova, Anastasia (2012). Man fühlt, was man hört. *TelevIZion*, 25(2), 25-29.
- Kopenhagen, Linda (2022). “Die Musik ist da irgendwie so komisch.” Eine explorative Studie zu kindlichen Äußerungen zu filmspezifischen Codes.
- Kreutz, Gunter (2011). Musik ist innere Bewegung. Ein Gespräch mit Prof. Dr. Gunter Kreutz. *TelevIZion*, 24(1), 37-39.
- Valkenburg, Patti (2004). Children’s responses to the screen. A media psychological approach. *Mahwah u. a.: Erlbaum*.

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