

sciencEmotion

Or when technology displays feelings



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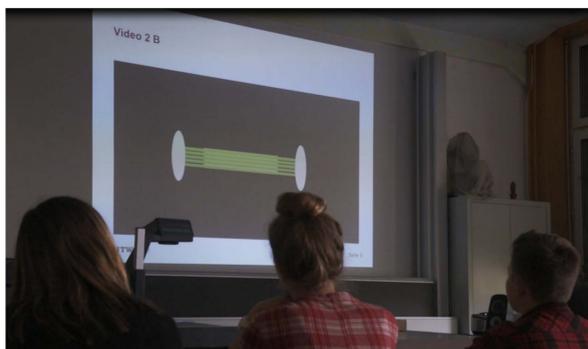
1. Introduction

STEM careers (STEM = science, technology, engineering and mathematics) do not seem to be very attractive for young people anymore which results in the current prevailing skills shortage.

Various studies show: One of the reasons for this phenomenon is the complexity in which this topic is presented in the media.

The current preferences in media usage by the target group would tend to encourage an entertaining and emotional mediation of the STEM topics via suitable media.

Videos can awake interest in the youth group and give an authentic picture of the STEM labour market and the work environment.



Young participants evaluate videos.

The aim of the study

The project sciencEmotion examines with a laboratory experiment the influence of the emotionality of the video message content on the attitude and behaviour of the recipients.

The aim is to find out how videos must be designed to address the target group as best as possible:

- Which information and communication requirements on career themes does the target group have?
- Which video formats are currently appropriate to meet these needs?

Videos in a suitable format with the important aspects in the message and the relevant design elements can inspire the target group to choose a STEM career.



2. Method

A laboratory experiment was carried out upon a total of 120 young people from Switzerland. They were divided into an experimental and a control group who watched and evaluated different groups of videos.

Total 120 test subjects			
Experimental group: 60 test subjects		Control group: 60 test subjects	
30 test subjects 12–16 years 50%♀, 50%♂	30 test subjects 17–21 years 50%♀, 50%♂	30 test subjects 12–16 years 50%♀, 50%♂	30 test subjects 17–21 years 50%♀, 50%♂

Allocation of the test subjects.

The setting

- Six hypotheses on the effect of emotional content
- Manipulation of the emotional expressiveness of the videos: either a high or a low emotional video in the respective context
- A questionnaire after each video

The hypotheses

A total of six hypotheses were defined, which are divided into content-related and design-related determinants.

Content-related determinants:

- Emotions (low – high)
- Representations (stereotypical – unconventional)
- Language (complicated – addressing the target group)

Design-related determinants:

- Interactivity
- Animation
- Narration

The questionnaire

- Seven blocks of questions, supplemented by a set of demographic questions
- Structure of the questions:
 - Five-stage ordinal scale
 - Semantic differential
- Results were analysed with SPSS



3. Results

The results of the experiment show, that videos are a useful tool to promote STEM topics to the target group – but only if they are designed in a well-adjusted form.

The following aspects appear to be important:

Young people want to be entertained and stimulated with a video, but content is still very important.

Emotional and objective elements should be well balanced.

Humour can be a powerful tool, but it can lead to a situation where the content is being dismissed.

A video based on storytelling is more interesting for the audience.

The stories should also address the female recipients.

Animated content and a lively and colourful narration are favoured.

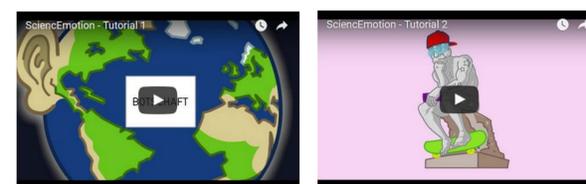
Short is generally better.

The language should be suitable for the target group.

A foreign language in a video (i.e. English) can be a problem.

The next steps

- Development of conceptual and production guidelines for video production as online tutorials for various partners
- Development of an interactive and mobile video platform for the target group



Online tutorials.

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References: [HTW Chur \(2016\): sciencEmotion](#)
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