

Synergy of Science, Art, and Entertainment in the science-communication project „Bio-Eco Cosmo Cat“

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Germany encourages the development of new bioeconomy technologies and jobs. On the one hand, politics, academia, and business activities support the promotion of bioeconomy and sustainable development. On the other hand, the public, which has no formal relationship with this area, has no idea what the bioeconomy is or has only a basic understanding of its meaning.

The Federal Ministry of Education and Research has dedicated the Science Year 2020/2021 to the Bioeconomy to address this communication problem. This initiative aims to pique the public's interest in science and raise awareness of the bioeconomy concepts.

One of the projects within the framework of the Science Year was the “Bio-Eco Cosmo Cat” project. The project is based on the hypothetical model of "Synergy of Science, Art, and Entertainment". It involves the communication of basic scientific concepts of bioeconomy through paintings and fairy tales in the form of a science and entertainment art exhibition. This research explores how using art and entertainment elements in science communication can create synergy effects for knowledge transfer and learning. The central hypothesis is that combining art and entertainment elements in the model mentioned above can positively influence knowledge transfer and learning in the bioeconomy. The objectives of this study are first to analyze the perception of the art exhibition on the topic Bioeconomy within the project; secondly to investigate the functional interdependence of the elements Art and Entertainment; thirdly to analyze the impact of the „Bio-Eco Cosmic Cat” project on knowledge about Bioeconomy among the respondents and to identify learning effects.

A qualitative exploratory study was chosen as the research design to analyze a hypothetical model and its related effects in a science communication project. As part of the study, interviews were conducted with random visitors who agreed to share their opinions about the exhibition.

This study illuminates visitors' perceptions and indicates further research vector. Considering the complexity of interactions between the elements of the model, it is too

early to conclude its effectiveness. Further research and practical development of the project „Bio-Eco Cosmic Cat“ are needed. Among the most important findings was the positive reaction of the visitors to the non-standard format of communication of the current topic. In addition, the animal-like nature of science communication was well received. The observation of paintings and fairy tales in this project immersed most of the interviewees in the state of a child. Participants noted the relationship between pictures and fairy tales, and this format, according to visitors, helped make complex scientific information easy to absorb. They reported that visiting the exhibition motivated them to learn more about bioeconomy from other, more traditional sources. Furthermore, it was suggested that such an interactive format would be successful for teaching children.

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