Leibniz-Zentrum
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Leibniz-Institut für
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Press release

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Texts, images, or education? What shapes our ability to comprehend information?

Do we understand stories better when we see them as images or as text? And what role do age and previous education play? A team of researchers from Berlin and Tübingen, Germany, have published a new study showing that it is easier to understand stories told with images than stories that are only text-based. This finding held across all age groups and levels of previous education. The images could be particularly important for people with low reading and language levels.

Story-telling is a universal way of imparting knowledge. If you understand stories, you can successfully navigate society, participate in political processes, or take part in continuing education programs. However, some people can understand stories better than others. A study carried out by the Tübingen Leibniz-Institut für Wissensmedien (IWM) together with the Berlin Leibniz-Centre General Linguistics (ZAS) shows that the key factor in how well people understand stories is their level of education. In contrast, the researchers were surprised to discover that age does not play a role. Regardless of these factors, however, people found it easier to understand stories when they were told using images.

Visual story-telling forms have a great potential

“Our results show the potential that visual forms of story-telling can have in reducing barriers to understanding,” said study director Professor Markus Huff from the Leibniz-Institut für Wissensmedien (IWM) in Tübingen. “Especially for people with weak reading and language abilities, they can provide a good alternative or addition to classic text formats.”
In an internet experiment with around 1,500 adults who had varying levels of previous education, the researchers investigated how well the participants understood different forms of storytelling, that is, text-based and image-based forms.

To do so, they used material from the "Multilingual Assessment Instrument for Narratives (MAIN)," a theory-based experimental procedure that was originally developed under the direction of Professor Natalia Gagarina, Head of Research Area 2 at ZAS, to test children's ability to tell stories.

"The study also clearly indicated that a higher level of previous education leads to people being better able to understand stories – both text-based and image-based stories," stated Professor Huff. Contrary to the researchers' expectations, however, this ability does not worsen with age. "We were able to show that the older participants' results were just as good as those of the younger participants," Professor Huff said. The researchers suspect that with age comes a greater amount of experience that compensates for any age-related declines in memory processes.

Participation increases when information can be understood

The study's third key finding was that all participants were better able to understand image-based stories than purely text-based stories. This insight is particularly important for education and information services. Whether the context is schools, adult education, or public campaigns – visual forms of story-telling can help make content more accessible to everyone. "Language acquisition research has already shown that good story-telling abilities during preschool and primary school provide a good foundation for a successful educational career," stated Professor Gagarina. She added: "At least for adults, visual information might be able to partially compensate for any weaknesses they have in text comprehension."

Link: *Education, not age, linked to narrative comprehension - ScienceDirect*

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Das Leibniz-Institut für Wissensmedien (IWM)

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Das Leibniz-Zentrum Allgemeine Sprachwissenschaft (ZAS)

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