How can image descriptions be used to support students with visual impairments?

Written by

Research has shown that while providing accessible image descriptions to students with VI greatly improves their success in engaging with graphical data, it will be important to develop and adhere to uniform standards for producing these descriptions.

Currently, means of improving text accessibility for learners with visual impairments (VI) are common and widely available, however similar supports for understanding images remain relatively rare. In working to remedy this, technologies have recently been developed (e.g. MathTrax, Digital Talking Books [DTBs]) that automatically translate complex images into more accessible formats such as detailed text descriptions and auditory representations. Providing descriptions of mathematical images such as graphs, tables, and charts can greatly enhance the ability of students with VI to gain a more complete understanding of math material than might otherwise be possible. This type of accessibility support also decreases students’ dependence on their teachers for math comprehension, increasing their ability to explore material independently and draw their own conclusions. Research has shown that while providing accessible image descriptions to students with VI greatly improves their success in engaging with graphical data, it will be important to develop and adhere to uniform standards for producing these descriptions. Areas in which image descriptions may be especially useful include webpage accessibility, standardized testing, and classroom instruction.

We are in the beginning stages on conducting a literature search on this topic and our initial findings, organized into general categories, are listed below. Please add any suggestions or feedback in the comments section.

Constructing Image Descriptions


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Research on Image Descriptions
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Diagrams

