

ABSTRACT

Title of Dissertation: Picturing Science: The Who, What, and Where of Images in Children's Award-winning Science Trade Books

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Educators, students, and parents are among those who have stereotypical preconceived ideas about science and scientists. The study reports on a content analysis of graphic images in 303 of the "Outstanding Science Trade Books for Students K-12" from the years 1973 through 2005. Using quantitative and qualitative content analysis, all of the images in these books were analyzed according to the presence of humans, the characteristics of those humans (gender, race, age) the style of the graphics, the setting of the images, and the actions performed in the images.

The results reveal that Caucasian males are still presented most frequently as scientists. Males appear in more total illustrations than do females (66% to 44%); the main characters are more often male than female (48 to 24); and biographies are most often written about males than females (75% to 25%). Images of Caucasians appear in more books than do people of color (54.5% to 45.5%); Caucasians appear in more total images than do people of color (84.3% to 15.7%); more main characters are Caucasians than people of color (87.5% to 12.5%); and more Caucasians are the subject of biographies than are people of color (72 to 7). Children appear in less than half of the total images, although they make up over 50% of the main characters in the sample.

The images found in the sampled texts are wide-ranging as far as the setting in which science takes place; they definitely dispel the stereotype of science only occurring in a laboratory. Moreover, as a body of images, there are illustrations or photographs

which capture people engaged in active scientific processes such as making observations, measuring, gathering data and samples, experimenting, and recording information.