

**ZMATH 2013d.00431**

**Hilton, Geoff; Hilton, Annette; Dole, Shelley L.; Goos, Merrilyn; O'Brien, Mia**

**Proportional reasoning and the visually impaired.**

Math. Teach. Middle Sch. 18, No. 5, 286-291 (2012).

From the text: Proportional reasoning is an important aspect of formal thinking that is acquired during the developmental years that approximate the middle years of schooling. Students who fail to acquire sound proportional reasoning often experience difficulties in subjects that require quantitative thinking, such as science, technology, engineering, and mathematics. These students may also have difficulty with many real-life skills, such as cooking, reading a map, and scaling an object. As a result, teachers need to deliberately target proportional reasoning concepts regularly and over time to ensure that maximum opportunities for study are offered for their students. This article describes a hands-on activity that helps promote sight-impaired students' understanding of relative and comparative sizes.

*Classification:* F83 D33 D43 C23 E53

*Keywords:* middle school students; mathematics skills; visual impairments; mathematical concepts; concept formation; teaching methods; learning activities; thinking skills; experiential learning; individualized instruction; student attitudes; proportional reasoning; proportion; modeling; hands-on activities  
<http://www.nctm.org/publications/article.aspx?id=34923>