1023-H1-1832 **Akihiro Matsuura*** (matsu@k.dendai.ac.jp), Ishizaka, Hatoyama-cho, Hiki-gun, Saitama 350-0394, Japan. *Learning Groups via Object Manipulation*. Preliminary report.

The notion of groups in algebra is rather abstract that it is sometimes hard for learners to access and be familiar with it. However, since basic discrete groups such as symmetric groups naturally correspond to the sets of ways of moving objects, if objects and the ways of movement are well-chosen, characteristics of groups such as symmetry and regularity are visualized in a comprehensive way and turn out to be quite accessible. The aspects of performing arts and entertainment appear in introducing the objects and manipulating them skillfully and attractively. We show some concrete examples of the relationships among groups, some kinds of juggling, and puzzles. We also report on some classroom experiences and discuss how to adapt in various settings. (Received September 26, 2006)