

Science and Math? Don't Worry, Bee Dance! - Connections Between Natural Sciences and Mathematics in Education

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Abstract:

The dance is a form of communication between *Apis mellifera* bees to indicate the location of flowers to their hive mates. Through the vibration of their abdomens and the angle they make with the sun, the bees are able to indicate precisely where the best food/nectar is to be found in those flowers. Based on this assumption, this study shows how an educational proposal was implemented in a elementary school, in which students measured angles with a large transfer and, using Role Playing Game, dramatized the bees' circular and waggle dances. Throughout the implementation of the educational tasks, the research showed that the students acquired knowledge, establishing connections between the Natural Sciences and Maths in Education. In addition to the results, a methodological tool is suggested for analyzing internal connections in Natural Sciences, internal connections in Mathematics and external connections between Natural Sciences and Mathematics.

Keywords:

Bee, Circular and waggle dances, Connections, Mathematics and Science Education.