Impacting Visual Reasoning Skills through Integrating Art & Mathematics

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1:00 pm in Derrick 238
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Abstract: This talk will report on iAM: Integrating Art & Mathematics, a free two-week summer camp for local area 5th, 6th, and 7th grade girls. Throughout the camp, they engaged in activities that used the language of art to contextualize mathematical concepts resulting in the hands-on creation of a variety of creative artifacts.

The first part of the talk will discuss iAM’s art and math connections in which students engaged in artistic processes that applied mathematical understanding in hands-on ways. Creative artifacts that the girls made throughout the camp will be displayed and discussed, including pop-ups, kirigami, 3D paper puzzles, jewelry, and sculpture.

The second part of the talk will report on the preliminary research results from iAM 2014, including pre-/post-test results that indicate improved visual reasoning skills after completing the two-week summer camp. Implications for art education and mathematics education will also be discussed.

Dr. Smith is an Assistant Professor of Educational Technology in the Department of Curriculum and Instruction at Texas State University. Her research interests focus on technology integration strategies within K–12 and post-secondary learning environments. As a former secondary art teacher, she is particularly interested in researching how the hands-on use of design-based technologies impacts multidisciplinary learning that transcends traditional content contexts. Currently she is researching the reconceptualization of failure in low-tech makerspace environments and the impact it has on learning and persistence.