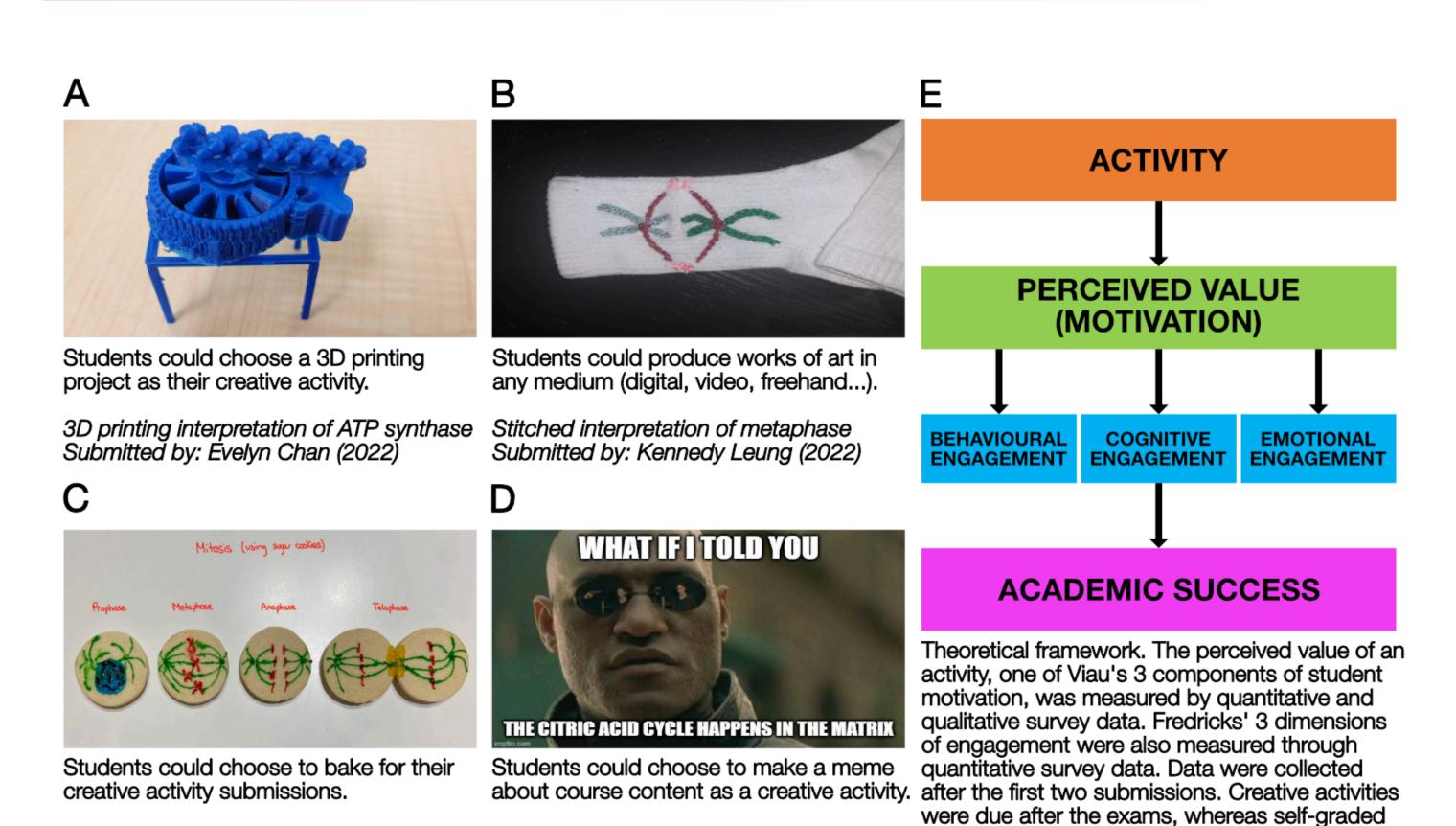
Creative activities promote student motivation and engagement in a large cell biology course

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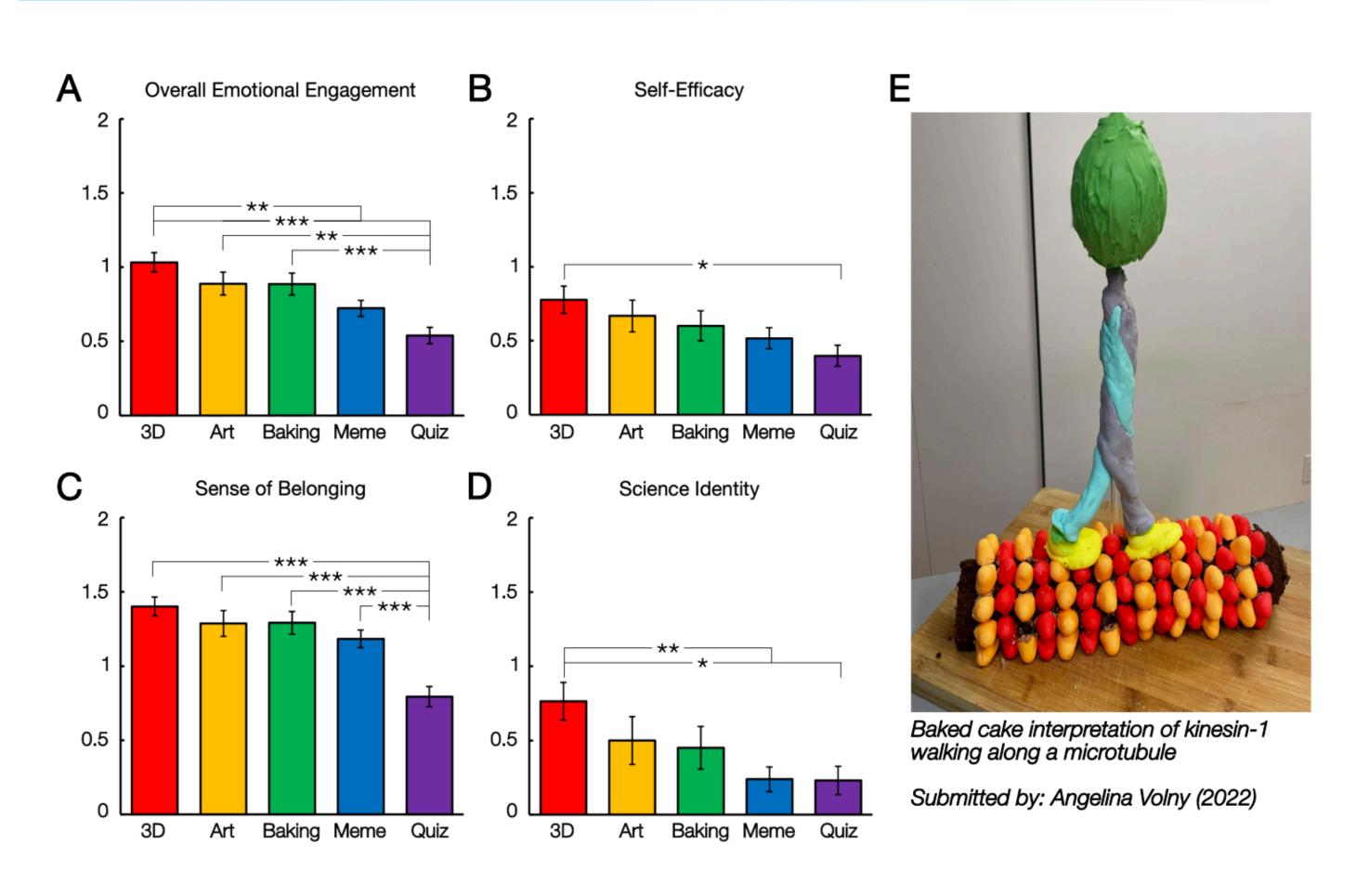




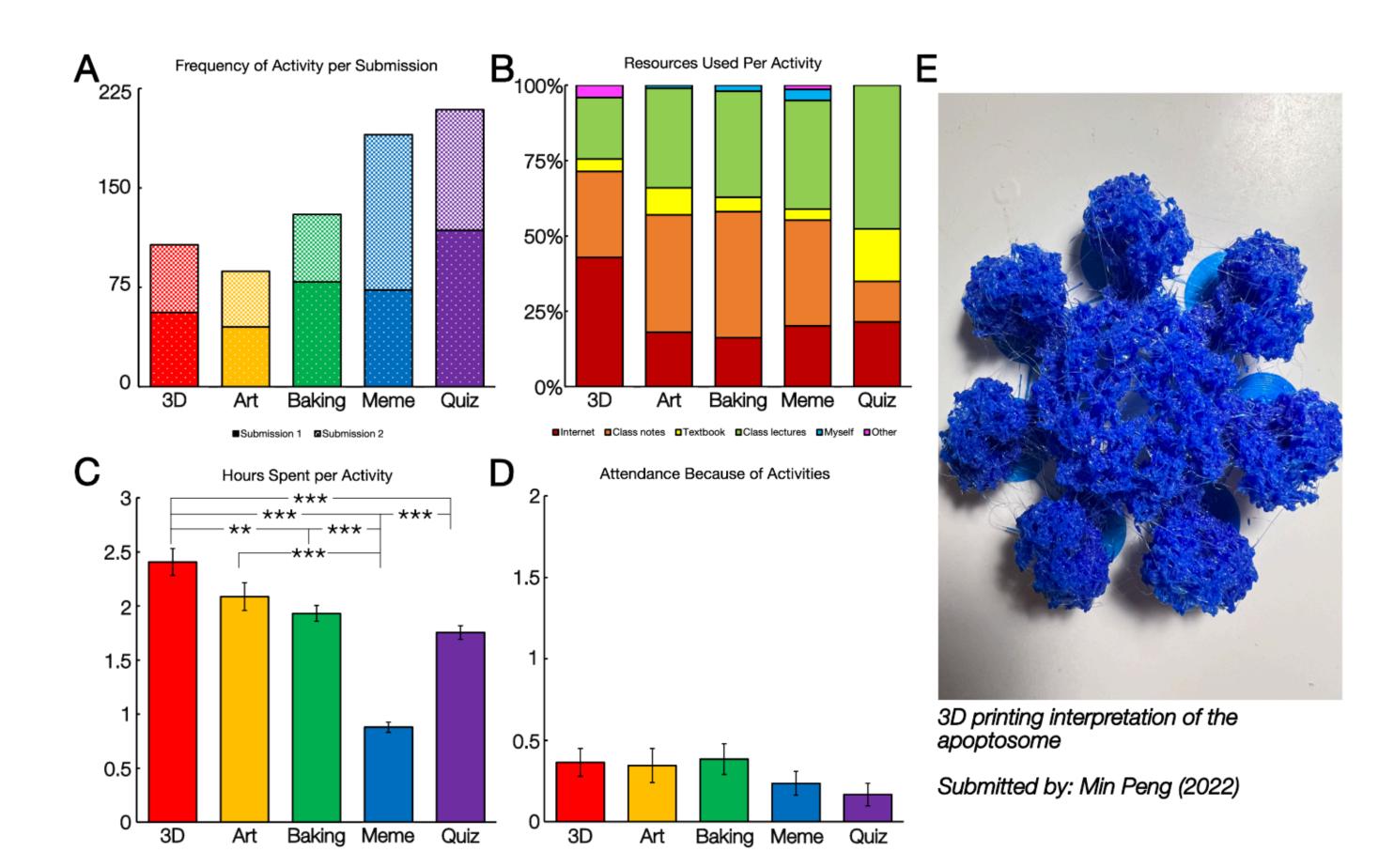
QUESTION: How are creative activities perceived, and how do they impact engagement and performance?



Creative activities foster a sense of belonging. Some also increase self-efficacy and science identity.



Quizzes accounted for most submissions overall and demanded the most use of lectures and textbook.



Students thought creative activities were valuable, but that self-graded quizzes would help their grade.

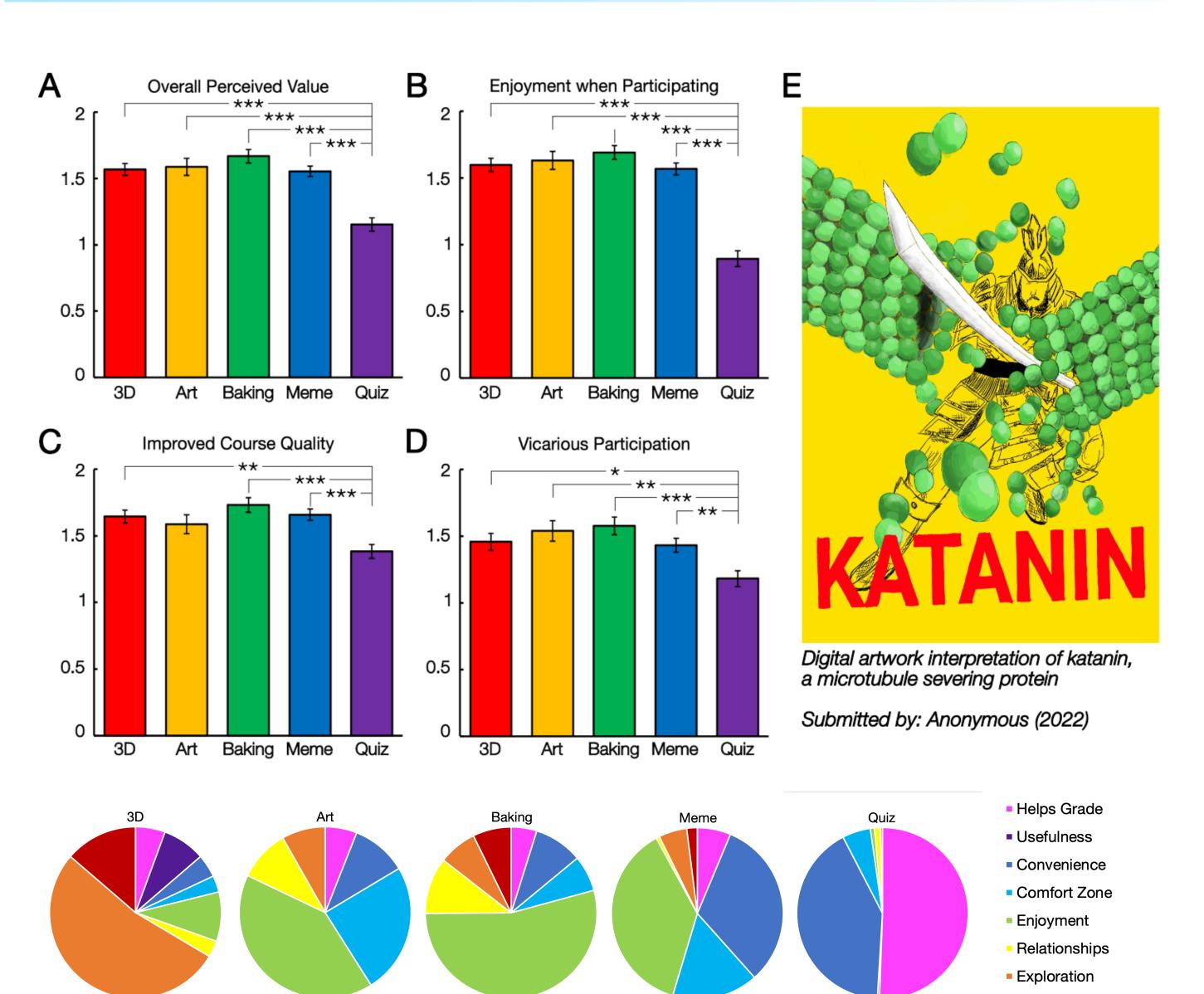
Meme about the mitochondrial matrix

quizzes were due before the exams. Each

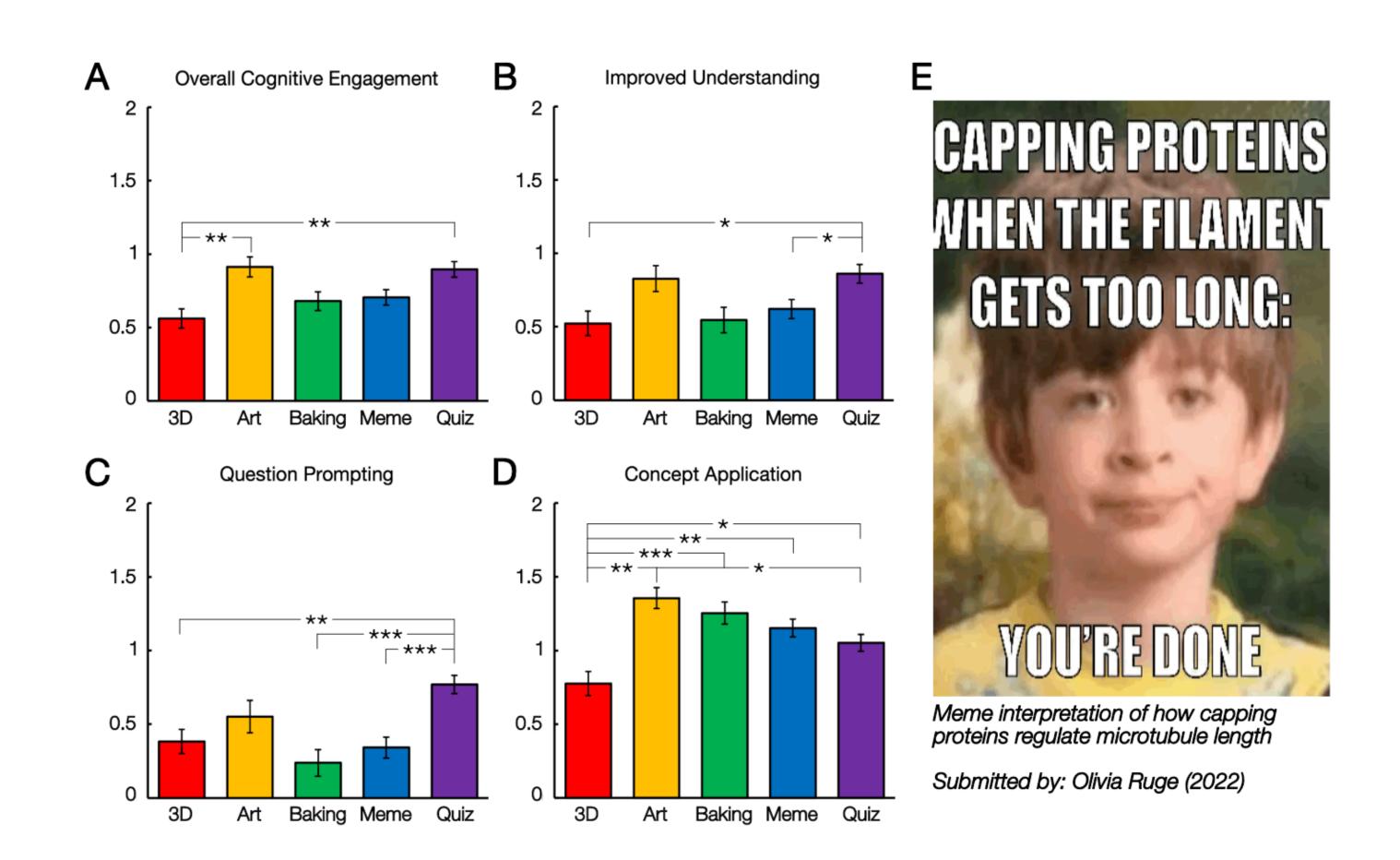
Submitted by: Savannah Dunberry (2022) submission was worth 2.5% of the course grade.

Sugar cookie interpretation of mitosis

Submitted by: Danielle Kaprelian (2022)

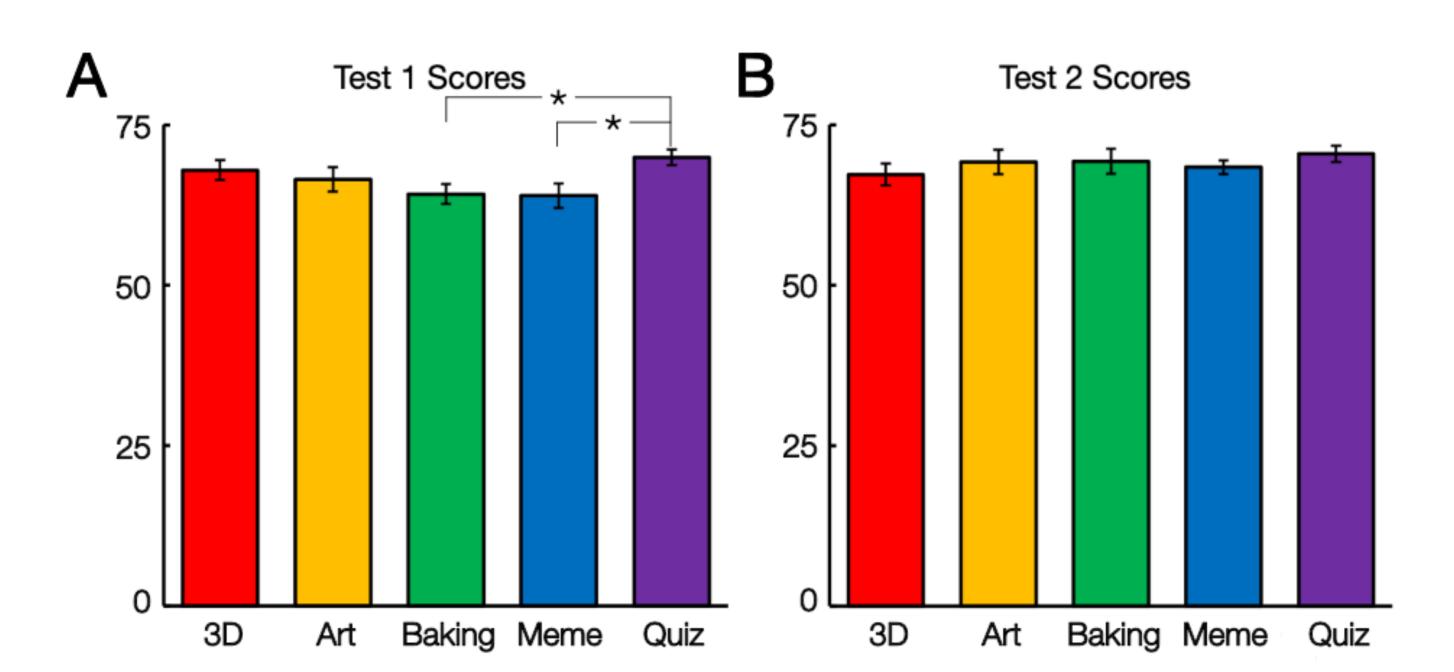


Choosing 3D printing, baking, and memes was less cognitively engaging than writing a self-graded quiz.



eferences
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Students who baked or made memes scored lower than those who wrote quizzes on the first class test.



conclusion: Our results indicate that cognitive engagement is key to academic success and should be considered in the future of these activities. Nevertheless, creative activities are motivating and help foster a sense of belonging, and can thus favour academic persistence.