

How Students Make Sense of a Science Trivia Task Designed to Spark Curiosity



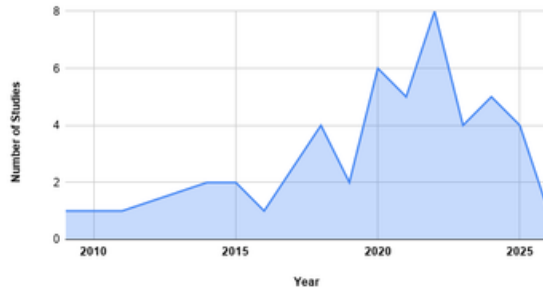
#2239591: CAREER: Investigating Curiosity-Driven Visual Processing during Science Learning

Trivia is an increasingly popular way to study curiosity, but:
Does trivia genuinely spark curiosity?

Are measures of state curiosity within a trivia task actually
measuring curiosity experiences?

46 studies
since 2009!

Trivia Studies of Curiosity Between 2009-2026



Prior literature says curiosity is:

about gaps
in
knowledge

non-
instrumental

triggered by
many things

social

generative

Prior literature says trivia
is:

factual

verifiable

non-
ideological

about
the past

4 themes emerged to help us understand
student experiences during a trivia task
designed to spark curiosity

"Chicken. Yeah! Because you see a
chicken without its feathers, it kind
of looks like a dinosaur. {Laughs}.
Yeah, like it's actually so funny." [on
the modern relative of dinosaurs]

Trivia is
entertainment

Trivia is
performance

"Humidity, maybe? I could not
tell you. I don't know much
about this. "Steam". Girl,
you're so dumb." [on the term
for water vapor]

After learning that hippos were
the most dangerous animal
asked "are they fast? Like why
are they such a threat?"

Trivia is an
opportunity
to learn

"Yeah, exactly. Oh, I probably could
have guessed it was their scales. I
feel like there's only so many parts of
the fish." [on question about fish
movement]

Trivia is a
strategy
game

Asking students "how curious are you"
may be more ambiguous than we think!

Methods

- N = 29 undergraduate students
- Talk aloud during a trivia task, 30-60 trivia Q's
- Used Braun & Clarke's (2006) 6-step process for thematic analysis to generate initial codes and organize codes into themes



“Venus”

What planet has
the most
volcanoes?

How curious are
you to know the
answer?



Challenge Areas

1. Careful interpretation of trivia studies
2. Developing new tasks that decrease non-curiosity elements (e.g., strategy game aspect, reward) and increase others (e.g., generativity, uncertainty)
3. Improving measures of state curiosity



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