# Exercise ADM "On Research" September 2025

<https://www.youtube.com/watch?v=KDp1tiUsZw8>

<https://www.youtube.com/watch?v=Cce1XJ3BCxg>

Questions.

1. **How would you classify the research strategies shown in these videos? And why?**

The first video shows experimental research. You can see this when the astronaut says ["I guess one of the reasons we got here today was because of a gentleman named Galileo"](https://www.youtube.com/watch?v=KDp1tiUsZw8&t=28s) and then ["we thought we'd try it here for you"](https://www.youtube.com/watch?v=KDp1tiUsZw8&t=45s). He's literally testing a hypothesis by dropping objects to see if they fall at the same rate. It's .ccontrolled experimentation.

The second video is observational/mathematical research. The narrator explains how ["Eratosthenes measures the shadow of a pole"](https://www.youtube.com/watch?v=Cce1XJ3BCxg&t=38s) and then ["We use geometry to determine"](https://www.youtube.com/watch?v=Cce1XJ3BCxg&t=53s) the Earth's circumference. He's observing natural phenomena and using math to calculate something, not manipulating variables like in an experiment.

1. **How would you phrase the research questions that are being answered here?**

First video: "Do objects of different masses fall at the same rate in a vacuum?" You can hear this when he says ["I'll drop the two of them here and, hopefully, they'll hit the ground at the same time"](https://www.youtube.com/watch?v=KDp1tiUsZw8&t=56s).

Second video: "What is the circumference of the Earth?" The narrator directly states this at the beginning: ["To calculate the circumference of the Earth"](https://www.youtube.com/watch?v=Cce1XJ3BCxg&t=7s).

1. **Does the research question have any sub-questions? Which?**

Yeah, definitely. For the first video:

* Will the moon's lack of atmosphere eliminate air resistance?
* Can this actually prove Galileo was right?

For the second video:

* How accurate can shadow measurements be?
* What assumptions about Earth's shape do we need to make?
* Can ancient tools give reliable scientific data?

# Read the research paper 42524600.

Questions.

1. How would you classify the research strategy used for this research paper?

Content analysis. The authors said it's "a content analysis of papers published in the Journal of Sustainable Tourism." They looked at 341 papers from 1993-2007, coded them into categories, and analyzed patterns over time. It's systematic analysis of existing documents, not creating new data through experiments or observations.