TUTORIAL 05

The Role of Mistakes in Art and Science Projects

TEACHER / YOUTH FACILITATOR RESOURCE • Ages 12–20 • Suggested session: 45–55 minutes

1. About the video

In this video, the speaker invites educators to reconsider mistakes in creative and scientific work. First attempts often do not succeed. Outside formal assessment, noticing a mistake, experimenting and trying again may build confidence and support memory. Unexpected observations can become useful when learners investigate them, even if they lead to ideas that were not part of the original plan.

2. Learning objectives

- Treat mistakes as useful information during exploration.
- Distinguish an attempt, an unexpected observation and a tested conclusion.
- Suggest a new hypothesis and adjust a creative or scientific trial.
- Explain how a non-judgemental setting can encourage investigation.

3. Key ideas

The speaker's central message is: "I make mistakes, I experiment, I search." They highlight the value of surprise in research and suggest addressing learners' questions as they arise. The claim that mistakes can strengthen memory is presented as the speaker's educational perspective, not as an experimentally proven result in this video. Surprise alone is not enough: learners need to observe, ask questions and test explanations.

4. Suggested learning sequence

Stage	Time	Facilitator guidance
Watch and notice	5 min	Play the video. Identify what the speaker says about mistakes, confidence and surprise.
Plan a first attempt	10 min	In groups, choose a small art-science challenge: build a stable paper structure or create a pattern with light and shadows. Predict what will happen.
Test and revise	20 min	Try the idea once; record an unexpected outcome without labelling it a failure. Change one variable, try again and document the difference.
Share and reflect	10–15 min	Present "our surprise", the proposed explanation and the change made. Separate direct observations from assumptions.

5. Materials

Video playback device; paper, tape and pencils; a lamp and simple objects for the shadow option; notebook or phone to record trials. Adapt materials to local safety requirements.

6. Questions for discussion

- Why might learners hesitate to show a mistake?
- What can an unexpected result teach us?
- How could we test whether a new explanation is plausible?
- How can facilitators value attempts while maintaining scientific rigour?

7. Assessment and follow-up

Each group shares a brief record: “prediction → observation → change → new attempt”. Check whether learners can identify a surprise, propose a testable explanation and distinguish evidence from hypotheses. Follow-up: create a gallery of “unexpected discoveries” with captions.

8. Accessibility and adaptation

Avoid grades and rankings during exploration. Allow drawing, speaking, photos or writing; share roles and offer key terms (attempt, mistake, observation, hypothesis, revision). Do not require learners to disclose personal experiences of failure.

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