

Failure+Making = Learning?

**Supporting learners
through failure
during making**



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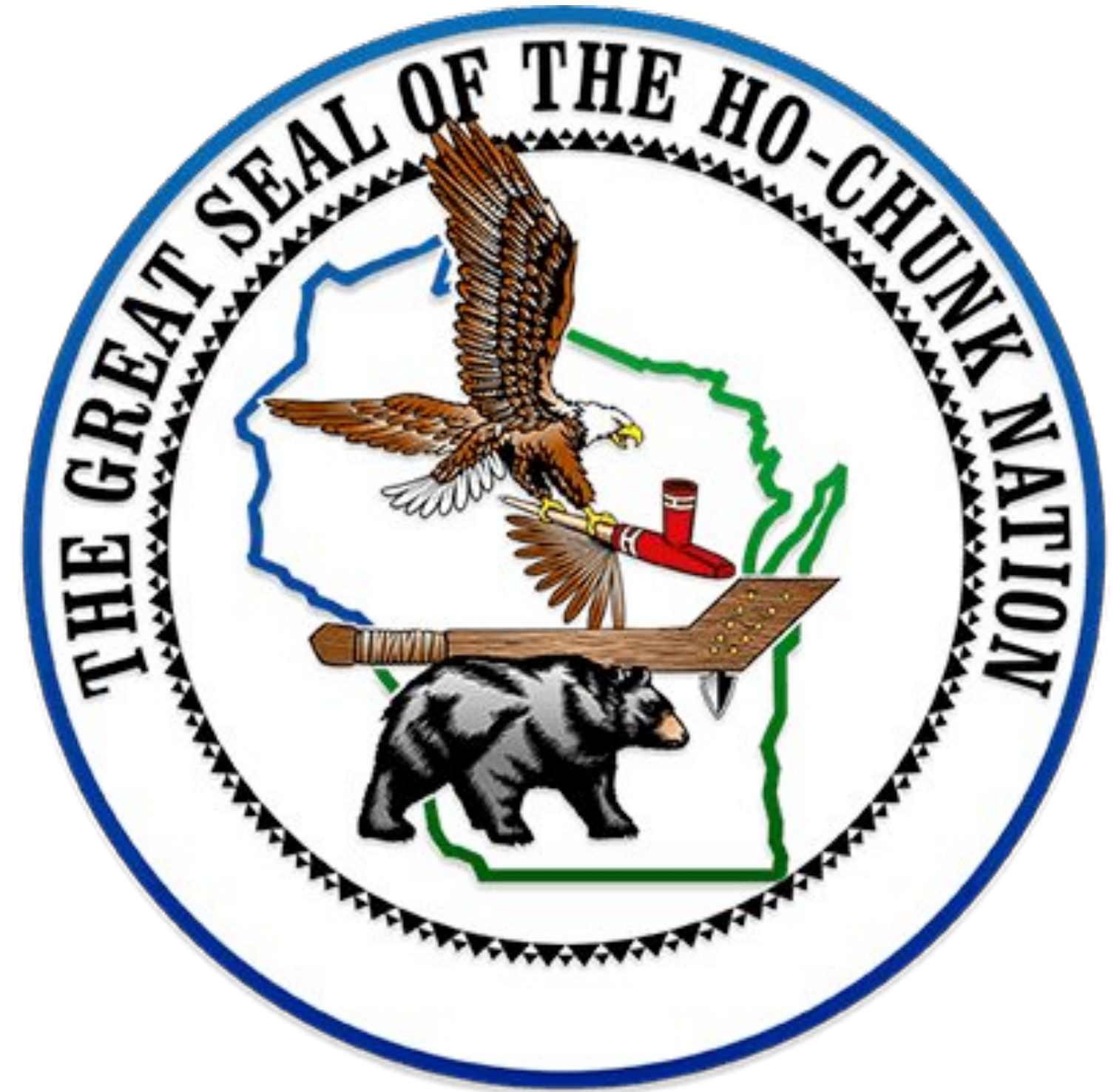
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Acknowledgement of Failures



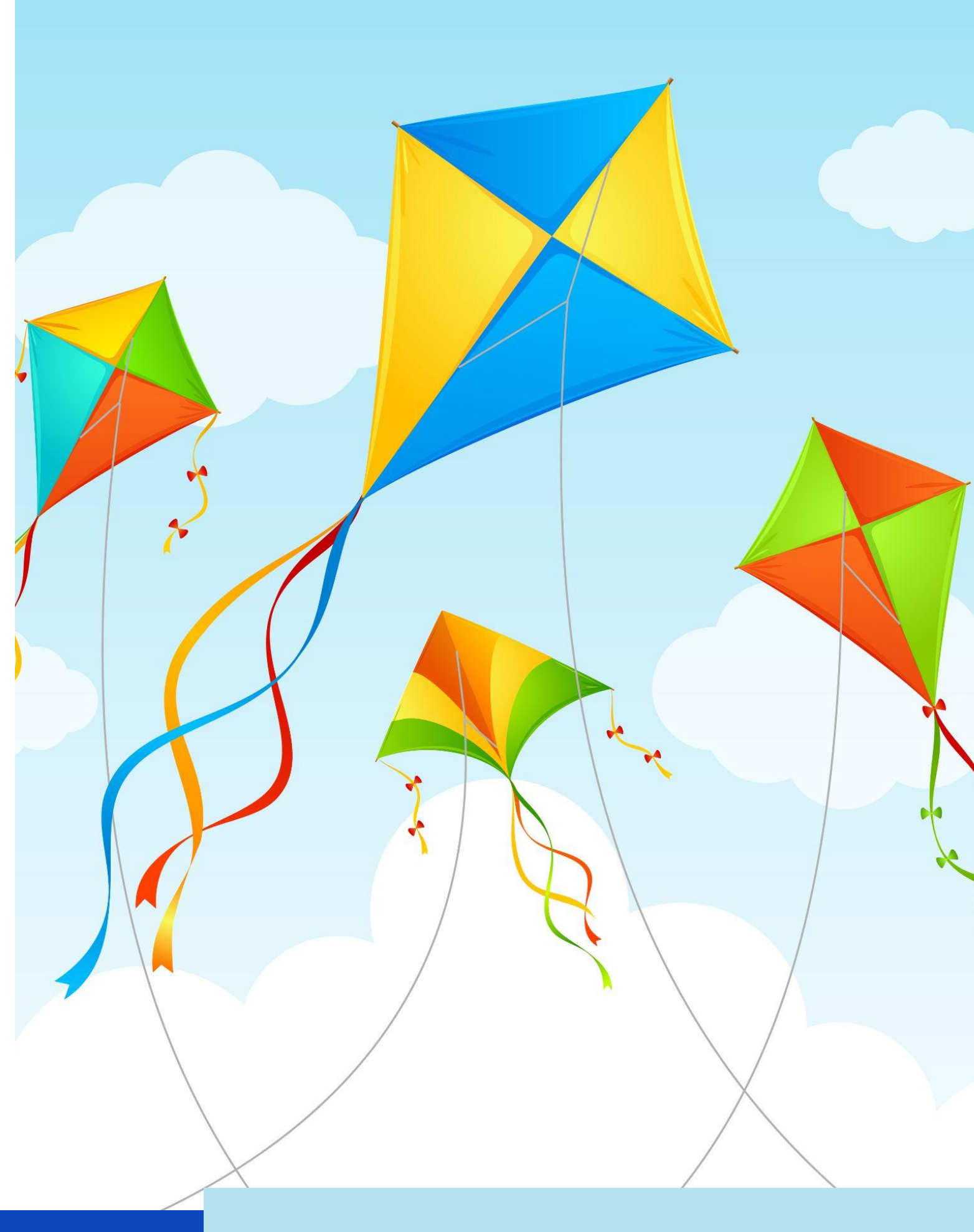


GO FLY A KITE

Getting acquainted with failure during making

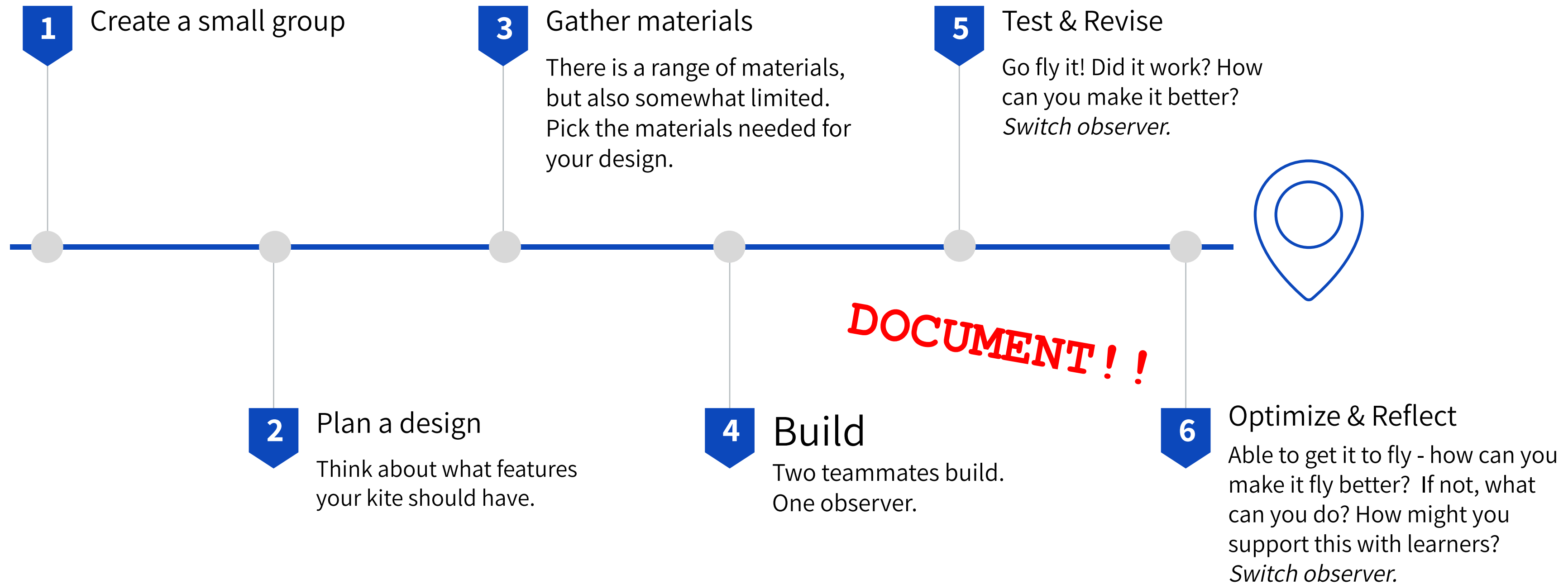
KITES

- How do we think and feel about failure?
- Are there differences based on positionality as an educator vs. as a learner?
- What role does fun/enjoyment play in how failure is experienced?



Kites over Madison

Goal: To build a kite that flies high in the sky.



Debrief - Discuss within Group



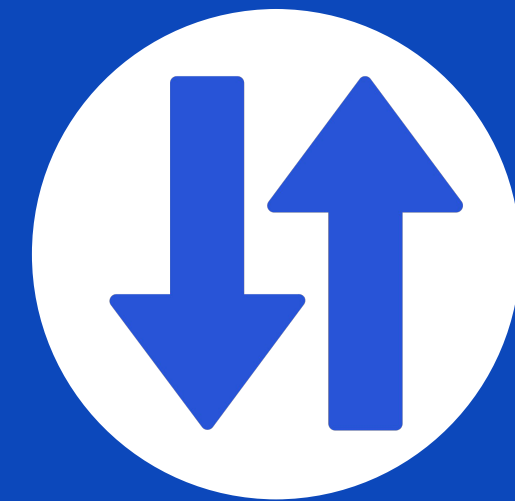
Emotions

Describe what you see/feel > How do we label these things?



Perspective

How are labels similar/different from kid/educator perspective?



Impact on Data

How will these ideas impact the data you generate as a researcher? How might you make sense of these as a researcher or evaluator?



TOOLS

What is failure (to you & your educational setting)?

How do you support learners through failures?

Defining Failure

Where do you see “failure” show up in your work?

What features does “failure” have?

What are your personal feelings of failure?



Activities to use with educators

Resources can be accessed on our project website:

[Talking about Failure](#)

[Preparing for Failure](#)

Failure is...

F	when something goes wrong	one step in the process of creating	when you didn't try your hardest	not having enough skill or knowledge
A	not being able to do something	being afraid to do something	trying your best and not being good enough	When experiences or emotions do not follow expectations
I	a mistake you can learn from	not reaching your goal	not having enough time	not meeting someone else's expectations
L	when you don't try or when you give up	getting turned down	a necessary and expected part of the process	unexpected, unintended, or undesirable behavior
	1	2	3	4

unexpected or undesired outcome	F1, I2, A4, L4
lacking skill or knowledge or time	A1, F4, I3
not trying (or not trying again)	L1, A2, F3
a process	F2, L3, I1
compared to someone else / not living up to expected outcomes	I4, A3, L2

Game Time

[Spinner](#) - Download

Instructions:

1. Within your group choose your roles (you will rotate): a) Learner, b) Educator, c) PD Facilitator
2. We will spin!
3. Role Play
 - a. Learner verbalizes what is going on
 - b. Educator responds
 - c. When done, PD Facilitator comments on how they would facilitate a reflection
4. Switch roles, spin again!



The Lifeguard Lifeguard learners are eager to take part in the experience, but their anxiety of failure and fixed notions of how to engage with certain materials, tools and processes can make it difficult for them to fully embrace the making process.	The Hesitator The Hesitator is interested in the making process, but might be uncomfortable with the possibility of failing, shy away from experiences that seem difficult, and may need reassurance along the way.	The Dramatist The Dramatist has an outsized reaction in the face of challenges which prevents them from moving forward.
The Window Shopper The Window Shopper loves to try new things and is drawn to activities that may have a fast result, but may not have the patience to engage deeply or over time.	The Doubter The Doubter voices concern or worry that they will not be successful, or makes rebuffs attempts at supporting or promoting their ideas.	The Jokester The Jokester uses humor to self-critique, such as pointing at the materials and laughing, suggesting that they purposely made something that would fail for fun.
The Big Dreamer The Big Dreamer has grand plans for their project in an exciting but potentially too grand for the time or materials available.	The Incrementalist The Incrementalist takes on risk through small experiments or iterations of their idea, sometimes breaking down each part to test it independently before combining.	The Quiet Thinker The Quiet Thinker is fully immersed in the process of making, but rarely verbalizes or otherwise shares their thoughts, ideas or challenges with others.

Pair & Share

What kinds of learners do you each see in your programs?

What are some strategies you use in your space?

What do you think about some of the suggestions on the next 2 slides?



Talk Moves

Wait Time: Take time to observe what child does in response to a failure. Notice before responding. If they seem stuck, use Stop and Jot or Think-Pair-Share.

Revoice: Restate what a child said by repeating or rephrasing their words.

Say more: Probe more into their thinking.

Acknowledge student struggle: Explicitly highlight students' efforts to persevere through a problem-solving situation so that students know that their effort is observed, appreciated, and considered productive.

I notice... (You notice...) I wonder... (You wonder...)



Sentence Stems for Kids

A sentence stem is the beginning of a sentence. Think of the stem of a plant. It's not the whole plant, just the beginning of it. Sentence stems give students the inertia to get their thoughts going.

- What surprised me was _____ because _____.
- I don't understand why _____.
- I am having a difficult time with _____.
- I found the problem to be _____.
- I am going to change _____ because _____.

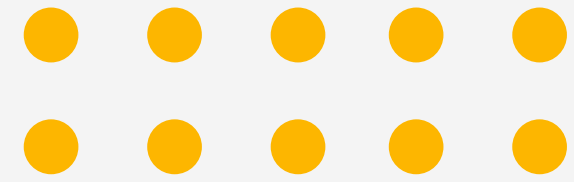


BREAK TIME

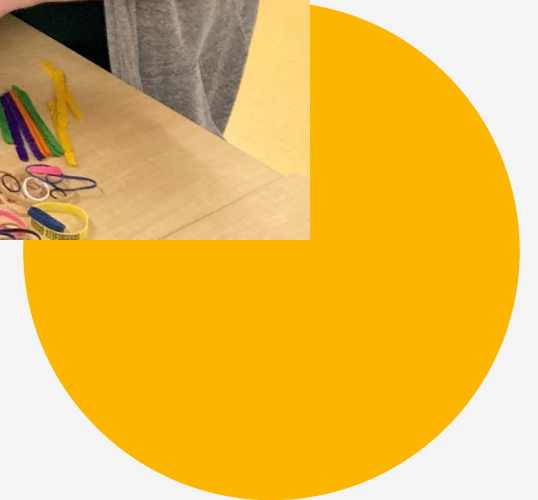
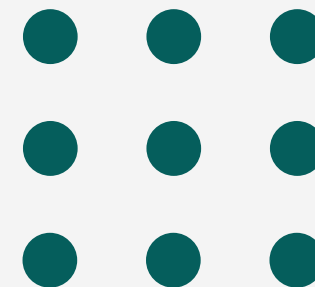
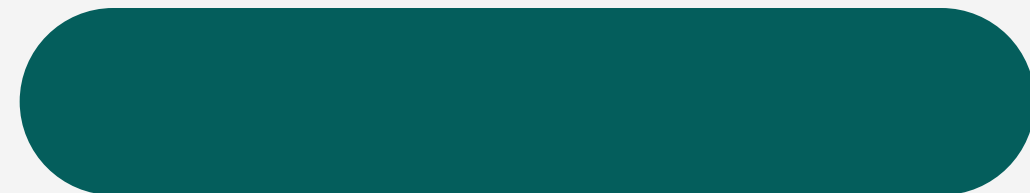


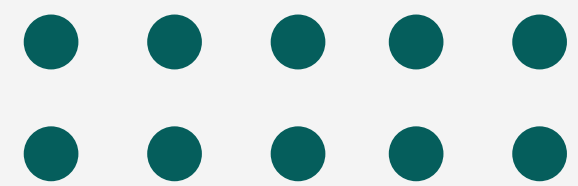
OUR FAILURE PROJECT

Overview of current project: Learning Communities
and Professional Development with museum educators



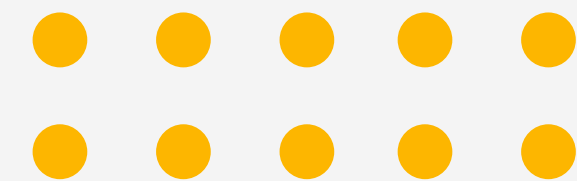
OVERVIEW OF CURRENT PROJECT: PD WITH MUSEUM EDUCATORS





Imagine...

being asked by a supervisor about being a part of a professional development where you videotape your interactions with kids to then share with your colleagues with the goal of improving on your practice, particularly how you react and respond when a kid fails.



What is your first reaction? Why?



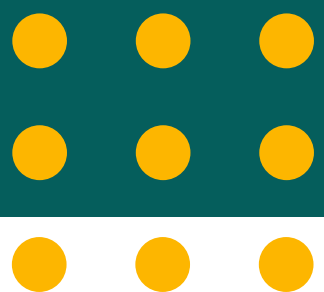
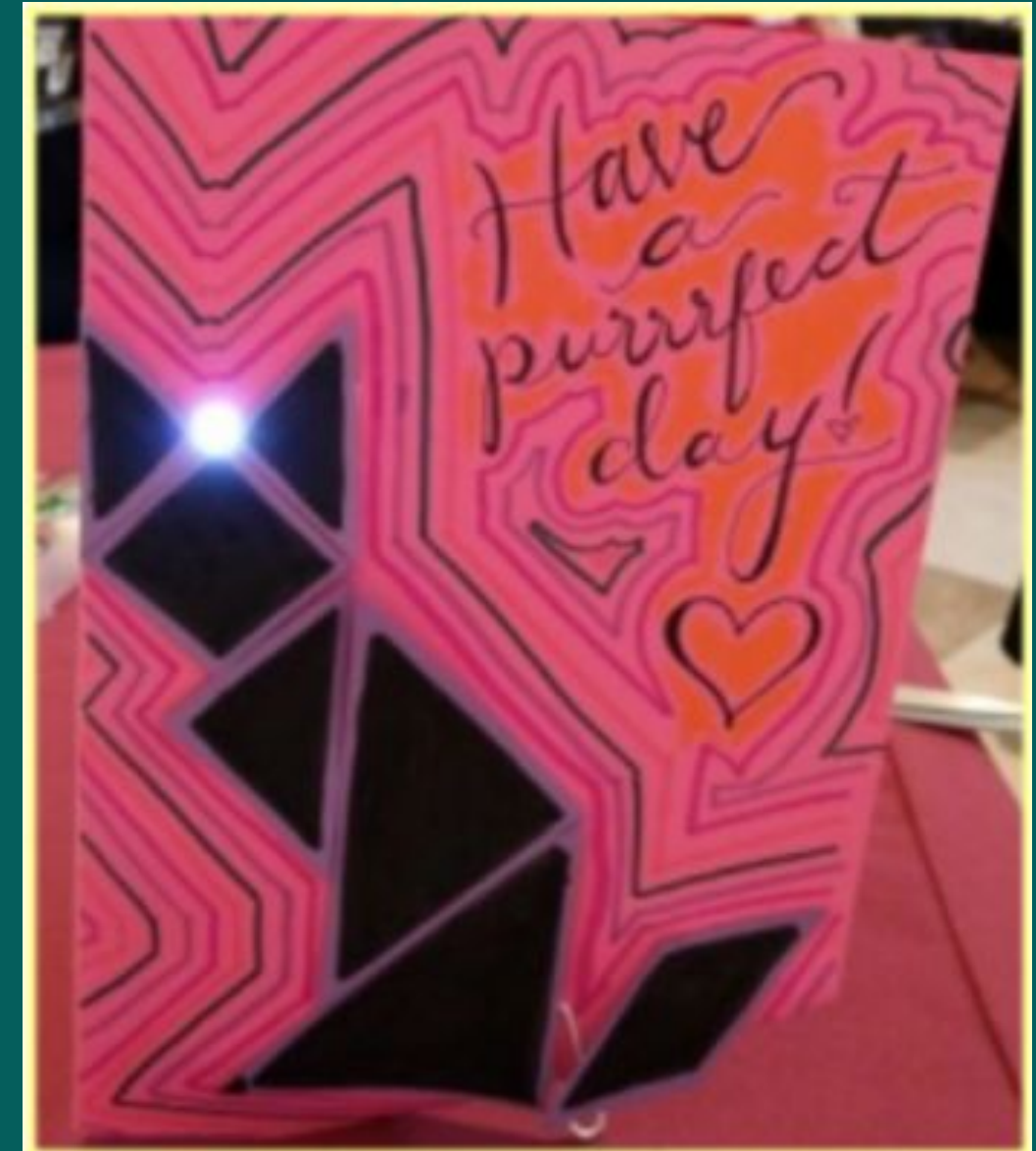
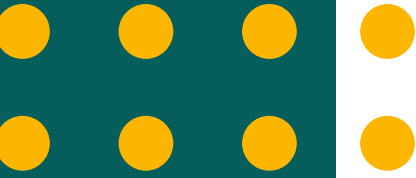
VULNER-AGEOUS



Vulner-ageous (Vulnerable + Courageous)

- **As a sharer** - bring related personal experiences to the group.
- **As a learner** - listen with curiosity and lean into empathy.
- **As a colleague** - think “professional vulnerability”; ask questions/change things in order to improve your practice and programs.
- **As a team** - collaborate and communicate with others both in and outside your site.

Video

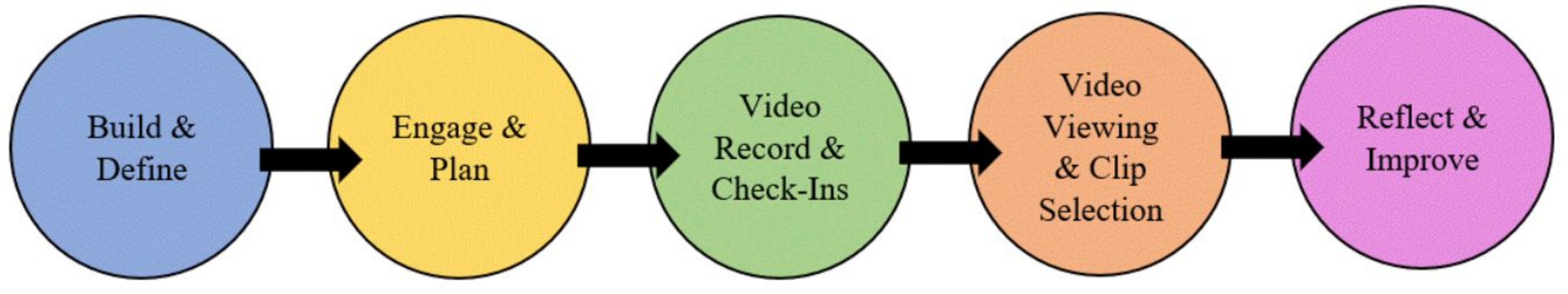


Reflection



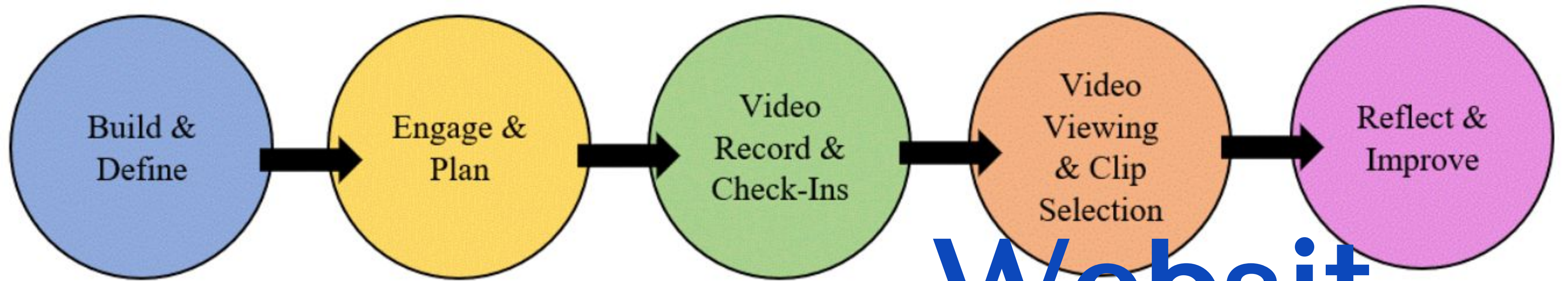
- What was this experience of providing feedback and suggestions like for you?
- How might this feel if providing feedback and suggestions to a colleague and not a stranger?
- How do we build a community where providing constructive feedback (and not just positive feedback) is welcomed?

PD Overview



The **objective** of our research was to adapt, implement, and refine a professional development program focused on supporting informal educators' instructional practices on ways to plan for and respond to youths' experiences with failure will have a positive impact on developing participants' pedagogical practices around failure, as well as developing youths' affinity for resilience during making tasks and a strong sense of self as a maker.

PD Overview



[Website](#)
e



ACTIVITY TIME on Website



PLANNING TIME

for your own setting

The following slides are templates used with our current group of museums. They are intended to help you organize your thoughts and plan for how you'll develop your own workshops and video recording.

Failure at your Institution

Reflecting on failure in your Maker
programs

Keep talking with your colleagues!

- How do we currently think about failure in maker programs at our institution?
 - Do we have a common definition of failure?
 - Do we currently train your educators in how to design for and/or respond to failure moments?
- Two ways activities at your institution allow for failures to occur
- Two ways facilitation stymies failure



ORG

What does
attending to
failure sound like?

What does
attending to failure
look like?

Two ways activities
are set up for
learners to
experience failure

Two ways
facilitation stymies
the possibility of
failure

Video Recording in/for Professional Development

WHERE might you place the camera? If unsure, list a few to test out.



WHO will be in charge? Consider pros/cons.



WHEN might you record (e.g., morning only) and for **HOW LONG**?



What do you foresee as being **difficult or tricky** about the video recording process?



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Video Selection

Once you've recorded, what's next?

Pick 1-2 clips (~2-3 minutes in length) to share with their colleagues in Workshop ³/₄.

Observation Tools

BRAINSTORM:

- (a) What do you want your educators to focus on when watching and selecting video clips? Why? How will this align with your education team's definition of failure (or not)?
 - (b) How will you do this? What questions might you ask or prompts might you give to attend to (a)?
 - (c) What might an observation tool look like? (e.g., structure, paper or virtual)
- 

ORG

- ❏ (a) What do you want your educators to focus on when watching and selecting video clips? Why? How will this align with your education team's definition of failure (or not)?
 - ❏
- ❏ (b) How will you do this? What questions might you ask or prompts might you give to attend to (a)?
 - ❏
- ❏ (c) What might an observation tool look like? (e.g., structure, paper or virtual)
 - ❏



Your Failure in Making PD Plan

What is your plan for running your professional development with your educators?

- Who, When, How, What?

What is the focus of your failure work?

- What activity / program will you be recording?
- How do you expect youth to fail?
- What are some facilitator strategies you expect to see?

What is your plan for video recording?

- Who is recording, When, Where, How?

What is your plan for video clip selection?

- What moments will you focus on? Who is selecting clips, when, where, how?

What is your plan for reviewing videos?

- Will you review them as a group? Individually?
- What role do you want to play? How will your positionality and identity contribute?



Draft of Plan part 1 - Workshops 1 & 2

What is your plan for running your professional development with your educators?

Who, When, How, What?

What is the focus of your failure work?

What activity / program will you be recording?

How do you expect youth to fail?

What are some facilitator strategies you expect to see?

Draft of Plan part 2 - recording and reflection

What is your plan for video recording?

Who is recording, When, Where, How?

What is your plan for video clip selection?

What moments will you focus on? Who is selecting clips, when, where, how?

What is your plan for reviewing videos?

Will you review them as a group? Individually?

What role do you want to play? How will your positionality and identity contribute?

QUESTIONS??

PLEASE FEEL FREE TO REACH OUT

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