

Learner-Centered Assessment Using Human Centered Design Tools to Frame and Extend Assessment Practices

Dana Scott

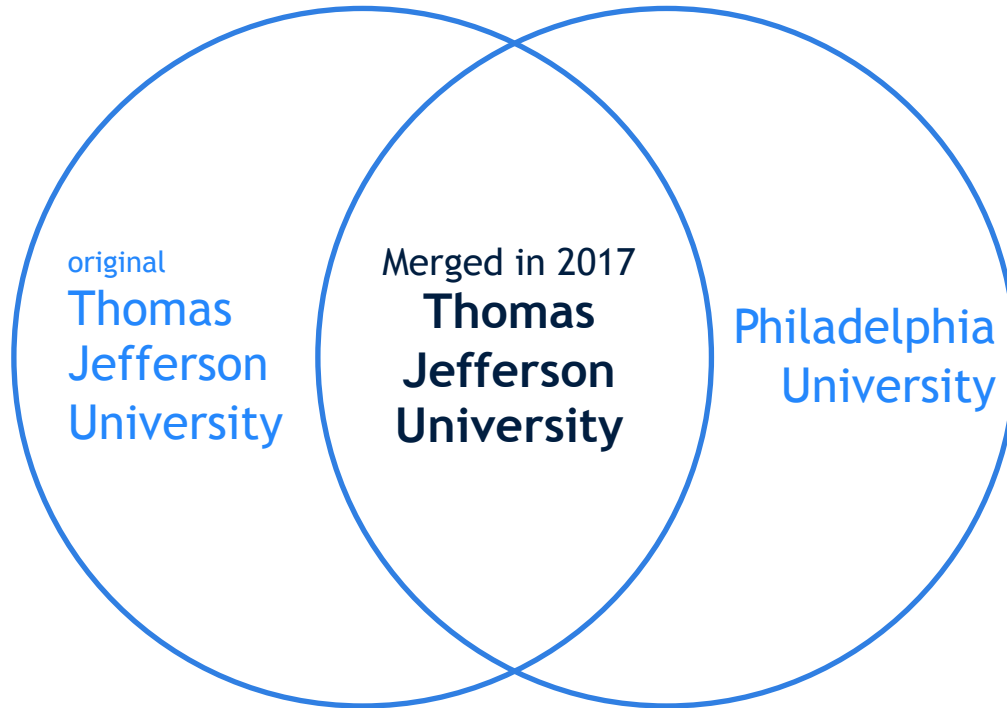
Director of Assessment of Student Learning Outcomes
Jefferson, East Falls Campus

Assoc. Professor, Director of the DEC Core Curriculum,
Kanbar College of Design Engineering and Commerce (DEC)

Background/Bio

- MFA from Tyler School of Art; BFA from RISD
- Teaching in higher ed for over 25 years
- At “Jefferson” since 2008, full-time since 2013
- Primarily foundation level courses in Design and Design Thinking
- Working in Assessment since 2014
- Presenting on Assessment since 2016

About Jefferson



- One of the earliest medical schools in the country (1824)
- Primarily Health related graduate programs

- Oldest textile institution in the country (1884)
- Comprehensive University
- Kanbar College
 - School of Design and Engineering
 - School of Business
- College of Architecture and Built Environment
- College of Science, Health and Liberal Arts

About Jefferson

- 10 Colleges, 1 school, 2 institutes across several campuses
- Main campuses are in CC and East Falls Philadelphia
- ~8000 students in 160+ undergraduate and graduate programs

Tell us about You!

- Name and Title
- University/Institution and Location
- Experience with Assessment
- What you are hoping to get from this workshop

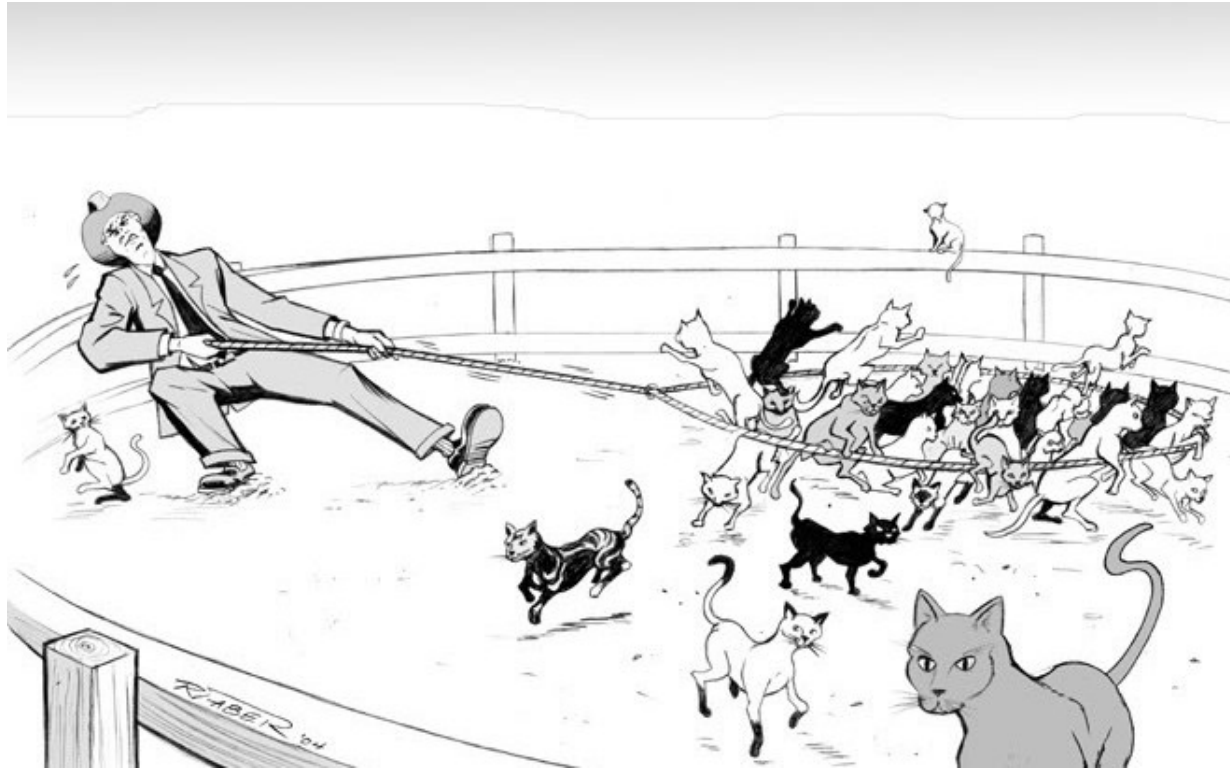
Outcomes

- Examine key issues and insights in assessment procedures
- Apply a series of strategic design tools to collaboratively frame, evaluate, and advance assessment practice
- Practice a series of methods applicable to advancing assessment across university programs/departments.

Faculty Development



Faculty Development



Faculty Development

- One size does not fit all
- Limit the broad discussion to general, key information
- If possible, use round tables instead of theater style seating
- Utilize Design Thinking tools to facilitate collaborative “break-out” sessions

Workshop Structure

- Introduce a variety of human centered design tools used for understanding, ideation, and analysis
- Collaboratively work with these tools to evaluate your assessment, framing problems and ideating potential solutions
- Leave with a set of resources to use at your own institutions

Timeline

- Each section includes time for report-out, discussion, and Q&A
- ~45 min: 1st method set - Stakeholder Mapping and Concept Mapping (Impact/Interest Matrix and Bullseye)
- ~50 min: 2nd method set - Creative Matrix and 2 x 2 Matrix
- ~15 min break
- ~40 min: 3rd method - Feedback Grid

A network diagram illustrating stakeholder mapping and concept mapping. It features numerous circular icons of varying sizes and colors (purple, red, blue, green, grey) arranged in a circular pattern. Each icon contains a white silhouette of a person. The icons are interconnected by thin, grey, curved lines, representing relationships or connections between different stakeholders or concepts. The central text is overlaid on this network.

Stakeholder Mapping and Concept Mapping

Stakeholder Mapping and Concept Mapping

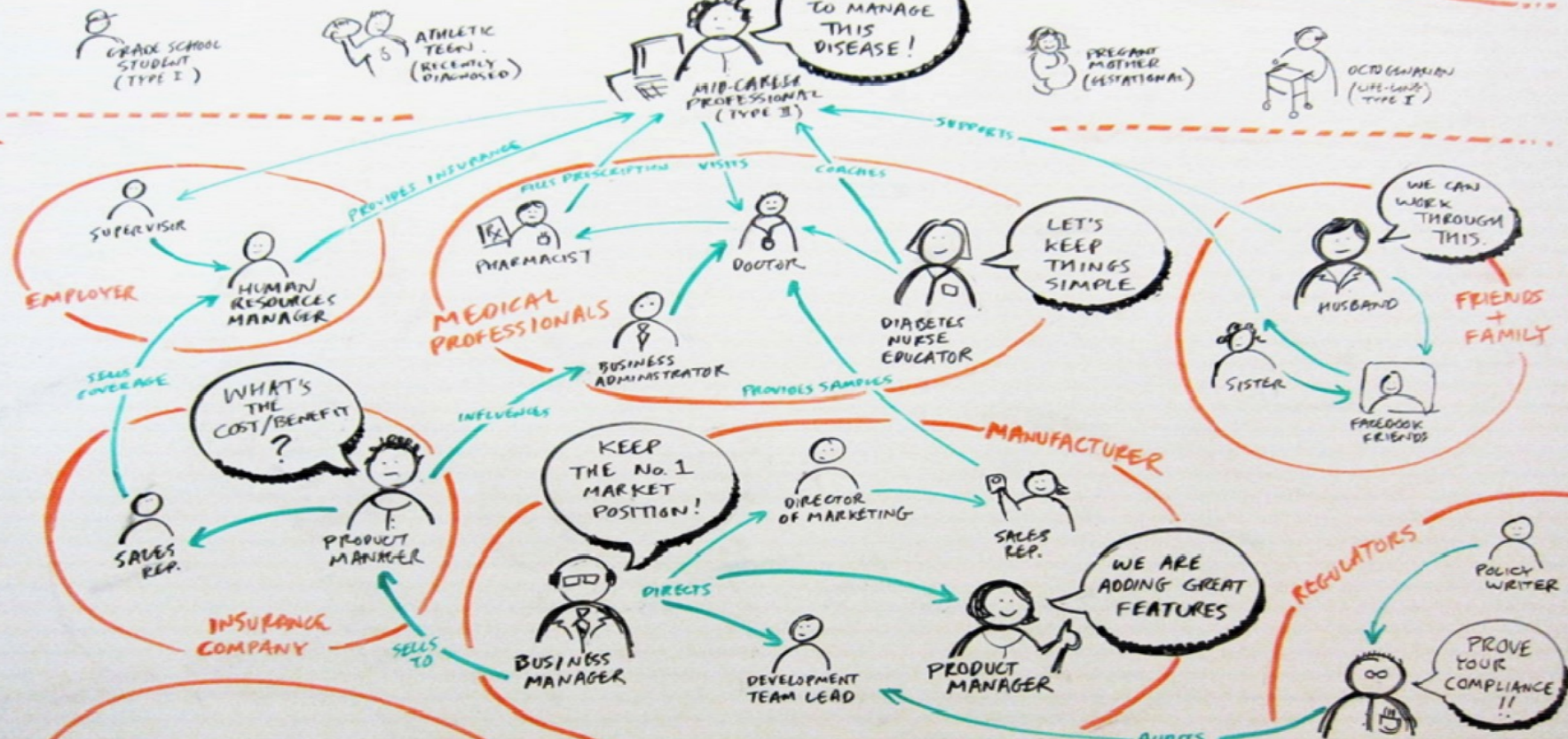
Divergent Strategies

- Allow you to re-frame a topic by giving you a big picture overview
- Give a broad perspective of aspects involved, both directly and indirectly, with a topic
- Can be used at both a small or large scale; program/department or university-wide

Stakeholder Mapping

- Identify a topic (student learning, faculty development, etc.)
- Brainstorm as many stakeholders, as you can, connected with that topic
 - Branch-off, consider those involved both *directly* and *indirectly*
 - Consider using different symbols, labels, or colors for each stakeholder or group

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Stakeholder Mapping

- These tools are flexible.
 - They **do not** have 1 “right” way to use them, or an intended “right” answer
 - There is no “wrong way” if you are gaining insights.
- Often times, the messier the “map” the more thorough it is
- The intention is to get a very broad overview of ALL people, institutions, departments, etc. involved with your topic; the inner circle through to the far outer circle.

Stakeholder Mapping

- Identify a topic
- Brainstorm stakeholders
 - Who is directly involved
 - Who is involved indirectly
- Continue to Branch-off



Concept Mapping Overlay

- Find and label connections between results/stakeholders
- Consider both *Positives* and *Challenges* when labelling
- Consider all types of concepts that may connect stakeholders, both broad and detailed
- Think about:
 - What do they care about?
 - How much influence do they have?

Stakeholder Mapping and Concept Mapping

Key Takeaways

- Name some stakeholders that “surprised” you, or that you may not typically think of when considering your topic.
- Name some unique concepts/connections that you may not have considered
- What are some of your key takeaways

Understanding Stakeholders



- Using a different color, circle ~15-20 stakeholders that “interest” you
- You will be using these stakeholders for the next activity
- You can add additional stakeholders, if applicable

A light blue square with a vertical double-headed arrow on the left side and a horizontal double-headed arrow at the bottom, intersecting at the center. The text "Interest/Impact Matrix" is centered in the square.

Interest/Impact Matrix

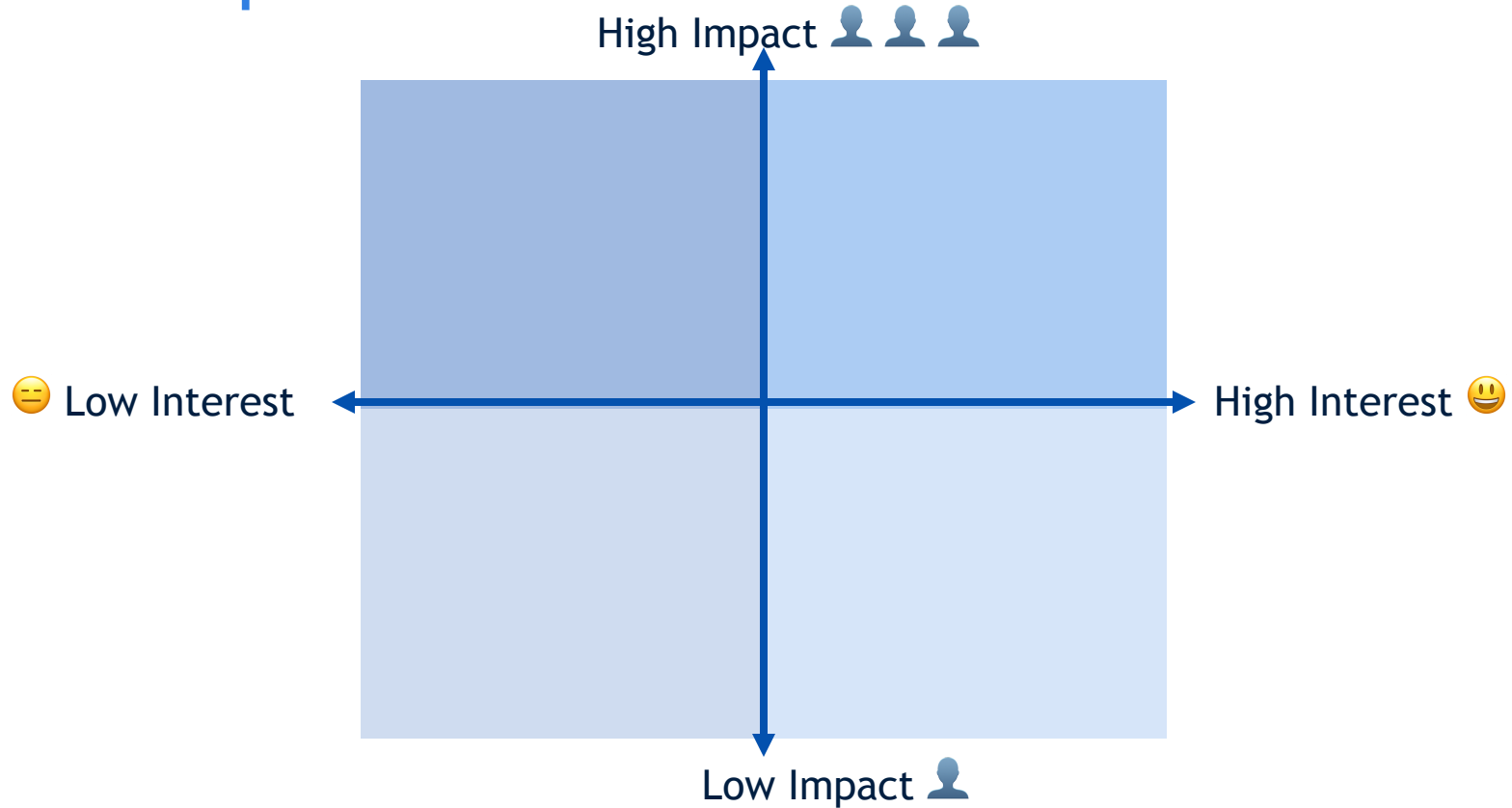
Interest/Impact Matrix



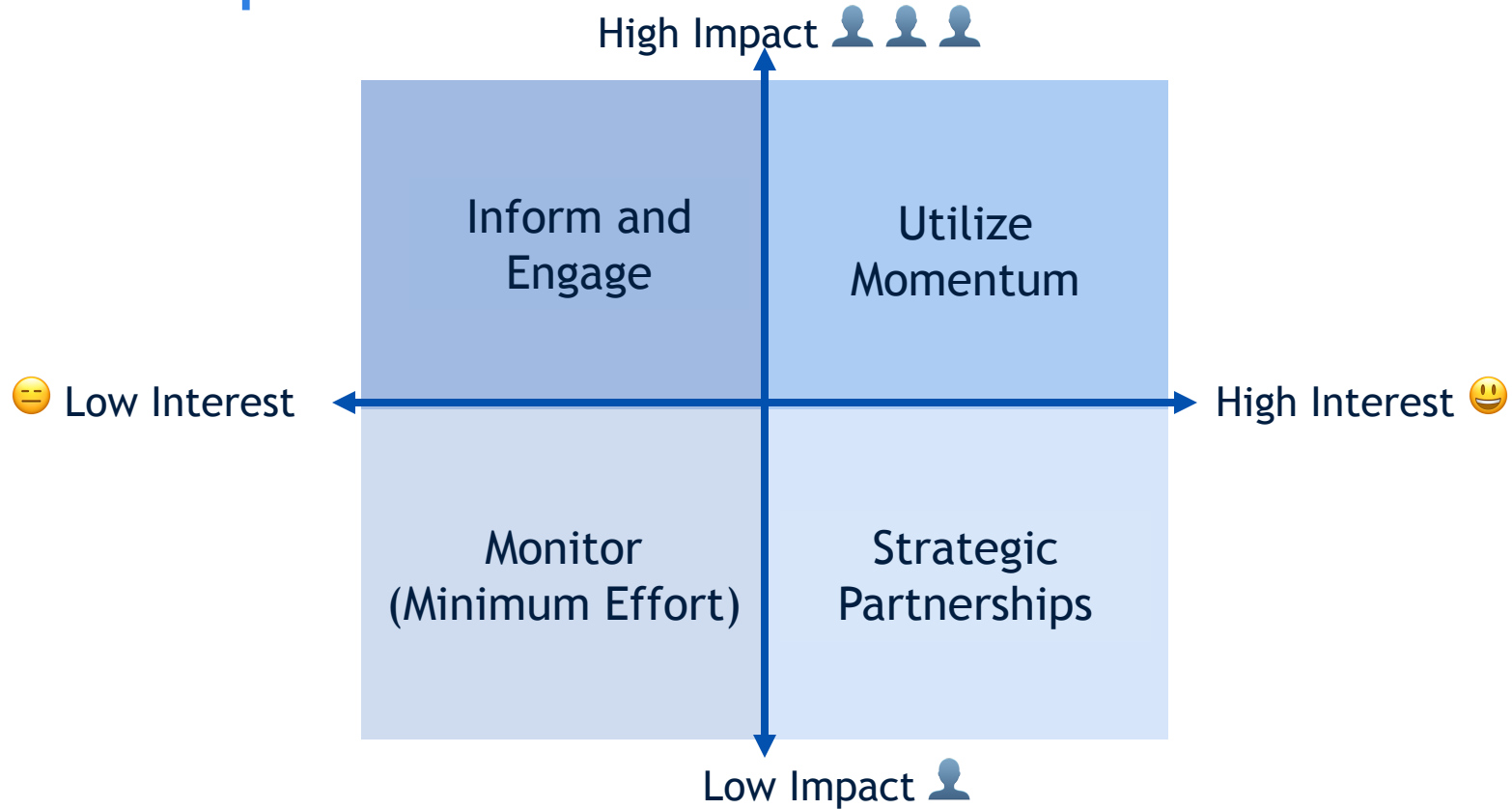
Convergent Strategy

- Helps identify and prioritize interest - vs - impact
- Facilitates deliberation
- Not meant to be used as a scientific method
- Can be used as a visual to help “drive” change

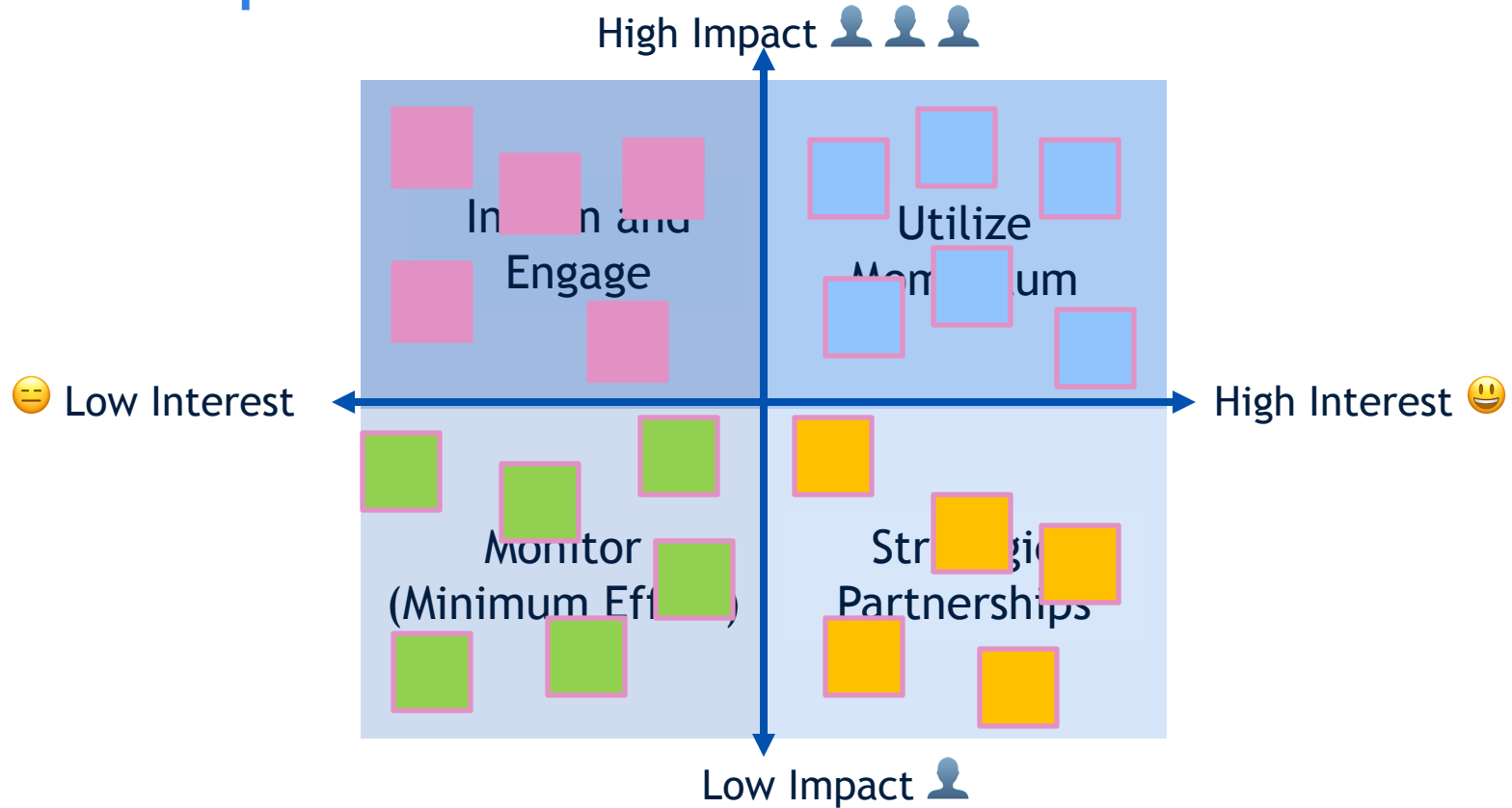
Interest/Impact Matrix



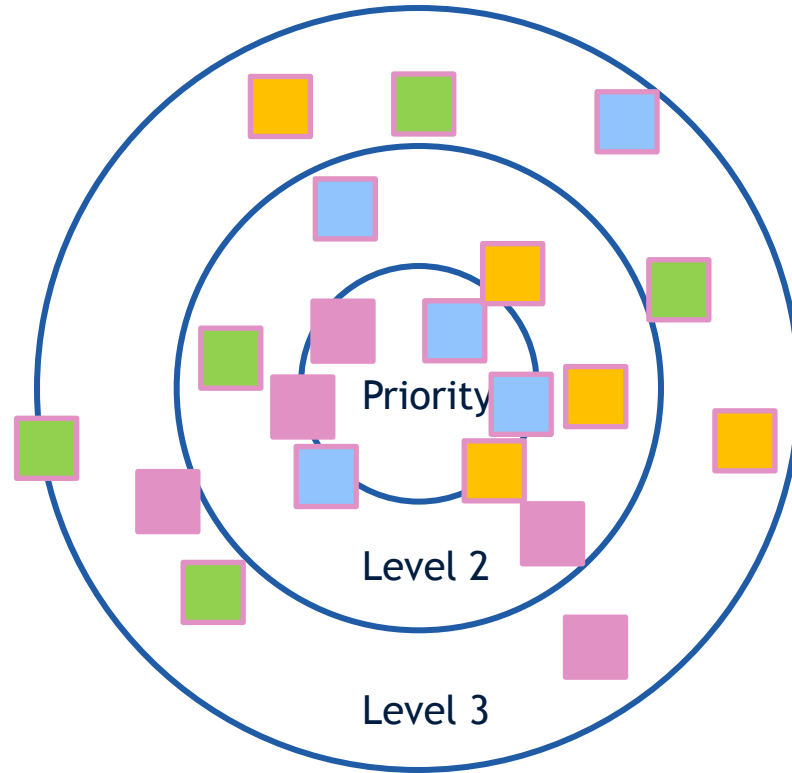
Interest/Impact Matrix



Interest/Impact Matrix

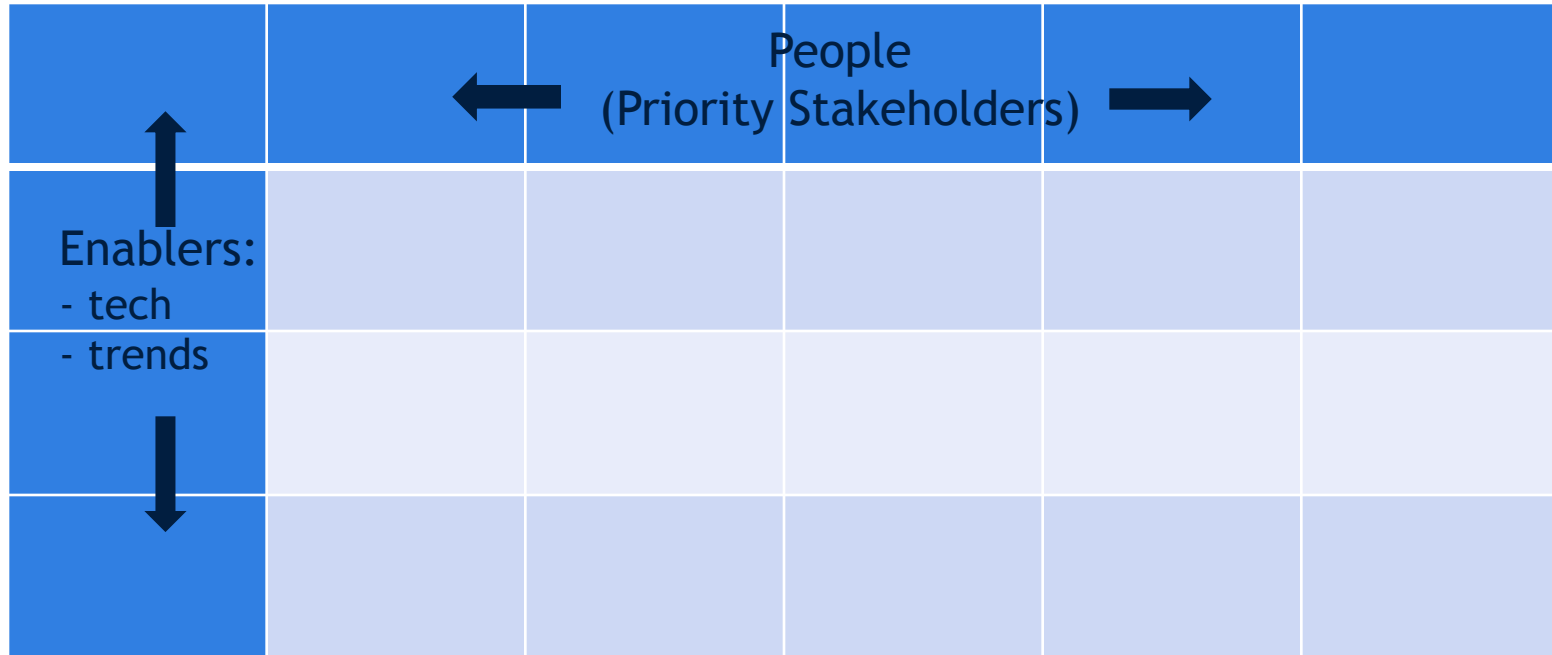


Prioritizing Stakeholders



Creative Matrix

Creative Matrix



Creative Matrix

Divergent Strategy with Convergent Aspects

- Generates a **wide** variety of ideas
- Allows for cross-pollination and input from all involved
 - Starts with “quiet-storming”
 - Everyone writes down ideas with minimal influence from others
- Promotes unusual or unexpected ideas, while allowing you to focus on specific solutions and needs

Creative Matrix

- Create a 5x5 grid
- Label each column (top row) with people involved in your topic (priority stakeholders)
- Label each row (first column) with broad enabling solutions
 - Training/development
 - Tech solutions
 - Trends

Creative Matrix

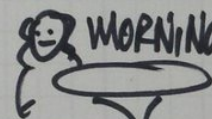
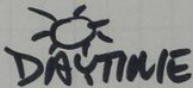
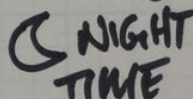
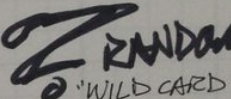


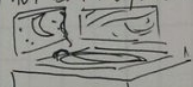









- Each person should, individually, quiet-storm ideas for each cross section, **1 idea per post-it note**
 - Try to come up with at least 1 idea per cross-section
- After everyone has written several ideas, simultaneously place them on the grid
- Add more ideas as they come up, and discuss
- 🍎 No idea is a “bad” idea. Outlandish ideas are welcome!

Creative Matrix

| Creative Matrix 42 | How might we... Attract and keep a diverse creative class in Pittsburgh? | How might we... Make sustainable improvements to the city's infrastructure and environment? | How might we... Help blighted communities thrive? | How might we... Foster and celebrate a greater sense of community in the city? | WILDCARD <small>Use this last category to capture ideas that are not spanned by the previous categories</small> |
|--|--|---|---|--|---|
| Technology & Digital Media <small>Imagine ways to leverage current & emerging technologies</small> Think about... - Mobile devices / wearable technology - Software & apps | Increase Awareness of U+H 764 | Visual for environmental needs on maps | Central Farmers Market & App w/ maps Tech Awareness & Outreach SSES | Conduct events online | |
| Events & Programs <small>Imagine ways to leverage coordinated gatherings</small> Think about... - Meet-up/community events - Peer-to-peer forums - Workshops/conferences/symposia | pop-ups food w/it Vocational Workshops (carpentry) | Eat Local Farmer Markets | professional / professional development workshops Great... Professional Pop-ups | ZIP LINES | |
| Facilities & Environments <small>Imagine ways to take advantage of places and spaces</small> Think about... - permanent structures - temporary installations - virtual worlds | Expand... to create more job opportunities Community Center | NEW Locks on the bike BIKE LABS Right Bike Labs Community gardens | Increase individual farmers | Local Artist Studios Build more expo studios | |
| Social Media <small>Imagine ways to leverage social networks</small> Think about... - Facebook - Twitter - LinkedIn | Integrate Public Transit Real-time updates better apps | encourage environmental non-profits to utilize social media | | Scavenger Hunt Events | |
| Public Policies & Laws <small>Imagine ways to leverage other people and organizations</small> Think about... - policy positions and platforms - institutional and individual roles - prospective legislation | subsidize start-ups | more recycling | | | |
| WILDCARD <small>Use this last category to capture ideas that are not spanned by the categories above</small> | | | document progress | publicize non-profit services | |

Creative Matrix

How might we make Mom's B. Day AMAZING?

| | MORNING  | DAYTIME  | NIGHT TIME  | RANDOM "WILD CARD"  |
|----------------------|--|--|--|--|
| LOCATION | HOMESCHOOL OUTSIDE!!  | SPA DAY @ HAPPY DAY SPA  | HOT BATH W/ MOONLIGHT  | HANDLE PLUMBING REPAIRS...  |
| ACTIVITY | SEE OUR LOCAL TRAILS! WIRE TO FINISH FLOWER WREATH (@ DOLLAR STORE) | ALL DAY @ THE MALL, EMILY WOULD BE OK HANGING OUT ALL DAY IN WOMEN'S CLOTHING. TOE NAILS POLISHED! | SPECIAL DINNER READ Mom a bed-time story FOOT MASSAGE  | HANG BIRD FEEDER PLAY NEW GAME FIX CHESS BOARD & PLAY CAMPFIRE / MASHUMADOWS |
| THING | OPEN PRESENTS  | TAKE PHOTO FOR GRANDMA'S FRAME HANG EDISON LIGHTS!  | CAKE W/ CANDLES (EMMET-SAFE!) POT OF TEA  | WRITE MOM A SONG EM'S HAIRCUT...  |
| BEHAVIOR | UPBEAT! 😊 ZERO-OUT KITCHEN | UPBEAT! 😊 LUNCH MADE FOR MOM! | UPBEAT! 😊 DINNER MADE FOR MOM. PIZZA BREADS NO DISH DUTY FOR MOM! | CLEAN BOXES OUT OF WEALTH CORNER  |
| ? RANDOM "WILD CARD" | ENJOY ZARBI'S H.B. Shelly CD!  | | READ HARDEE'S BOY'S BOOK  | |

How Can We Improve Student Learning through Assessment?

| | | | People (Priority Stakeholders) | | |
|--|---|--|-----------------------------------|--|--|
| Broad Solution | ↑ | | | | |
| Categories: - Tech - Trends - In-class - Co-curricular | ↓ | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

- Each person should, individually, quiet-storm ideas for each cross section, **1 idea per post-it note**
- After everyone has written several ideas, simultaneously place them on the grid
- Add more ideas as they come up, and discuss



Importance/Difficulty Matrix

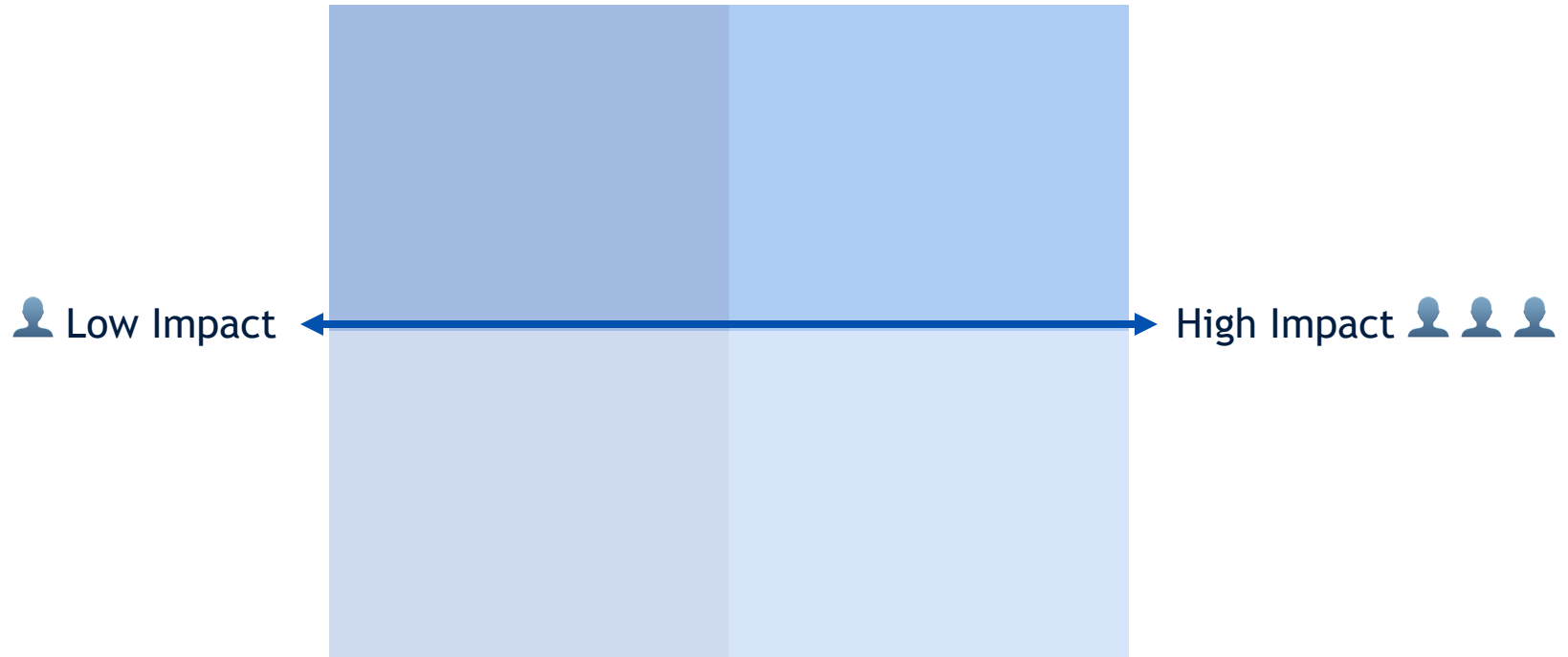
Importance/Difficulty Matrix



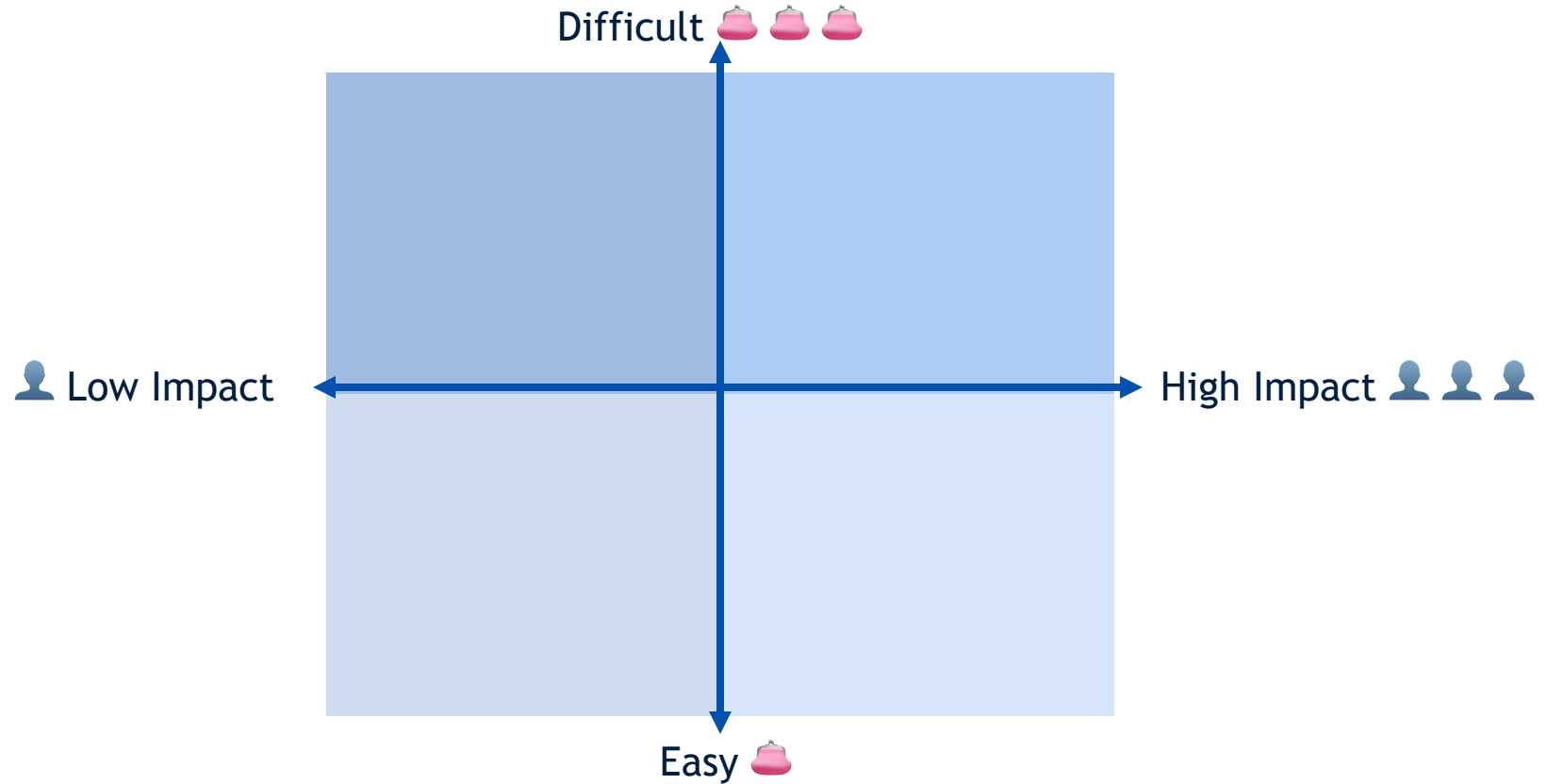
Convergent Strategy

- Helps prioritize ideas/needs
- Facilitates deliberation
- Not meant to be used as a scientific method
- Can help formulate strategies for solutions

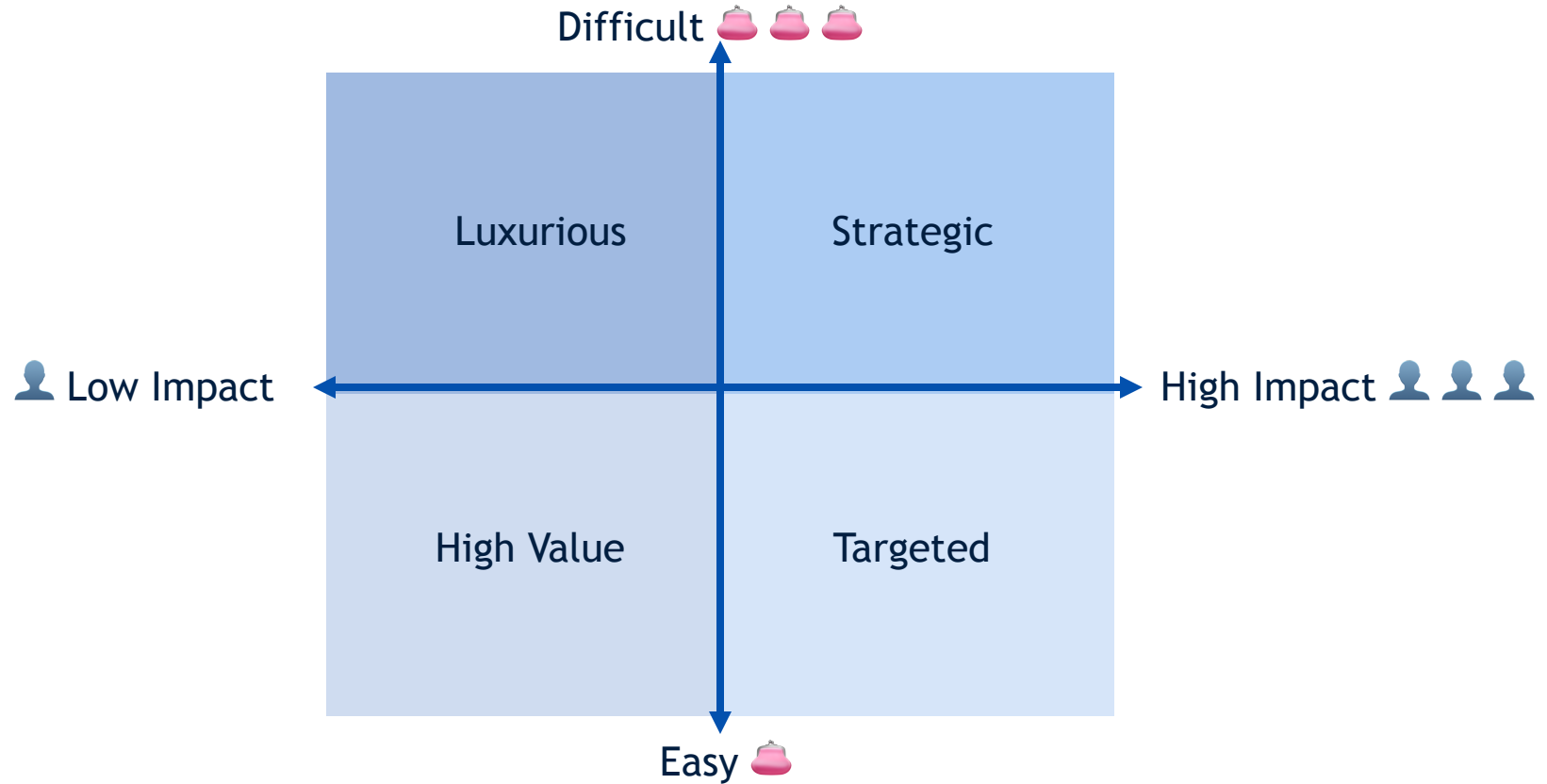
Importance/Difficulty Matrix



Importance/Difficulty Matrix



Importance/Difficulty Matrix



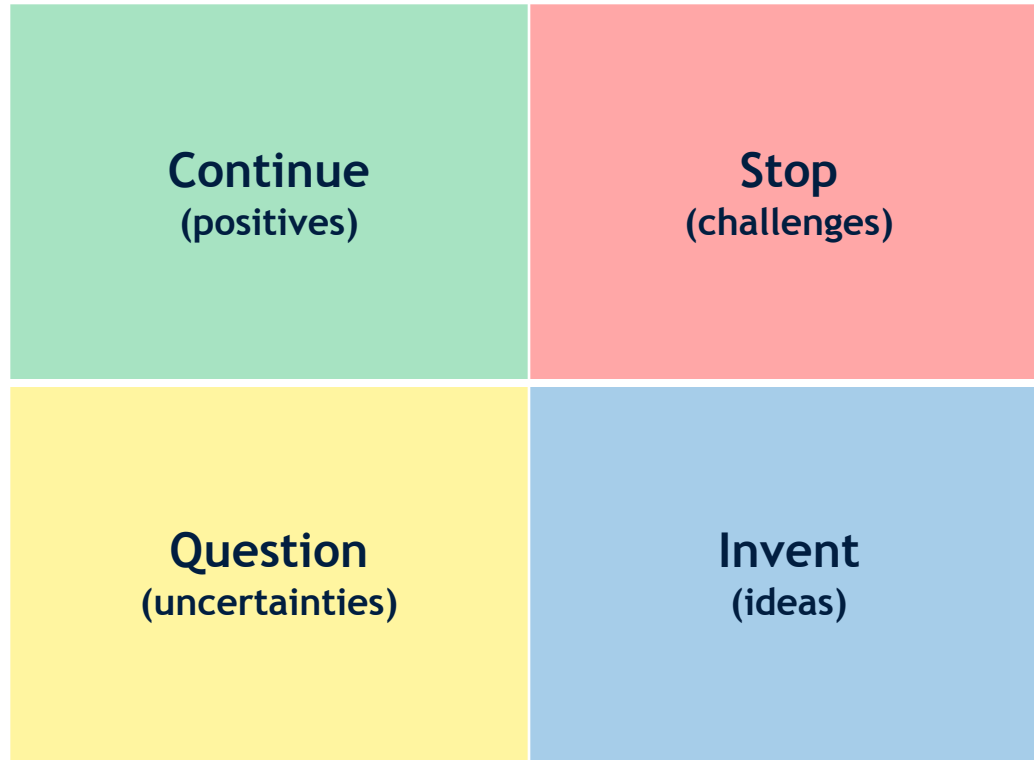
Creative Matrix and I/D Matrix - Key Take-aways

- What was the most interesting “idea” that your group came up with? (It does not need to be one that you used in the 2x2)
- What was the idea that your team may potentially “pursue” from the I/D Matrix?
- Was there an idea/concept that you may take back and utilize at your institution?
- What worked about this activity, what didn't?



Feedback Grid

Feedback Grid



Feedback Grid

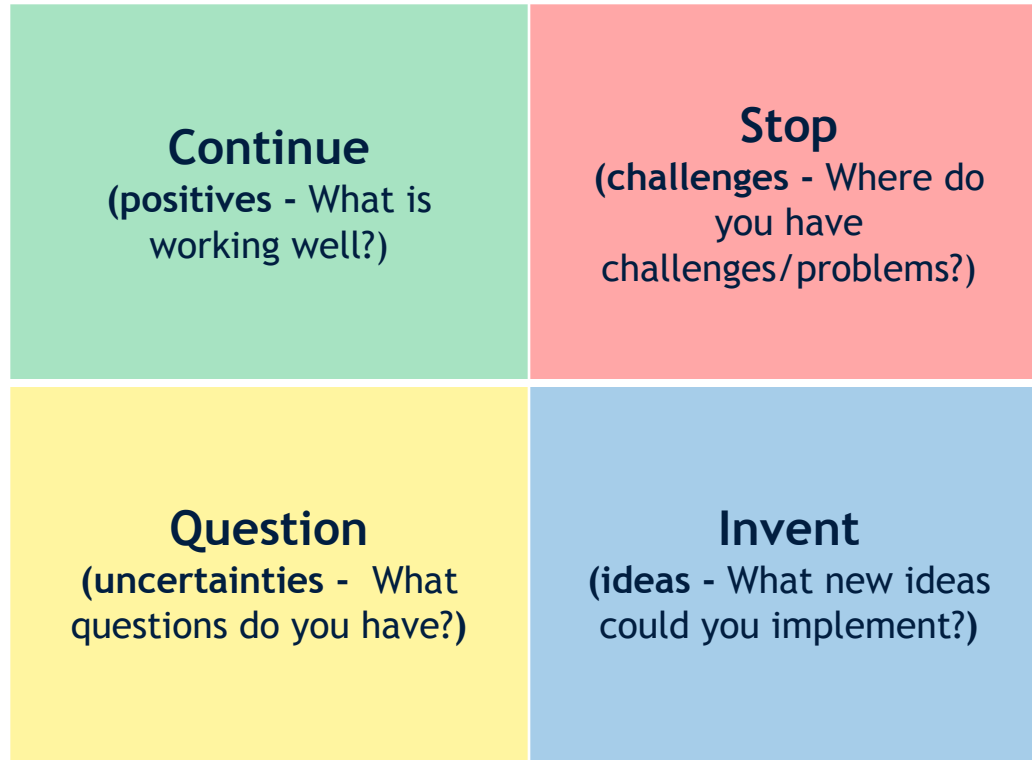
Strategy with Both Divergent and Convergent Aspects

- Gives a big picture of challenges, needs, potentials, and accomplishments
- Allows for diverse viewpoints
- Allows for cross-pollination
- Facilitates discussion

Feedback Grid

- Each participant, individually, ideates examples for each box in the grid
 - Try to do this quietly, without looking at other's answers
- Consider:
 - What is working well?
 - Where do you have challenges?
 - What questions do you have?
 - What new ideas would you like to implement?

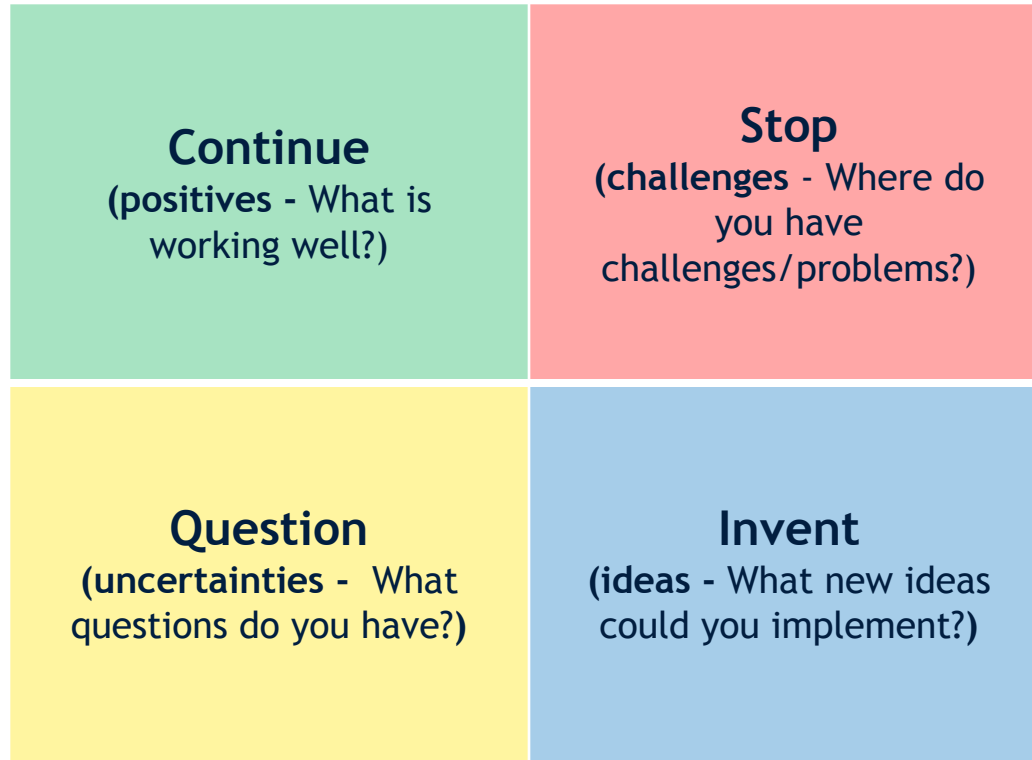
Feedback Grid



Feedback Grid

- When you are ready, have the group post answers all at once
- Look over the responses, and allow for a discussion
- Move post-its around to “affinity cluster” themes or topics and promote further discussion

Feedback Grid



References and Resources

- **Innovating for People; Handbook of Human-centered Design Methods.** Pittsburgh, PA: LUMA Institute, 2012. Print.
- **IBM DesignThinking: Field Guide.** 3.4rd ed. Somers, NY: IBM Corporation, 2016. Print. Ser. 2016.
<https://www.ibm.com/cloud/architecture/content/field-guide/design-thinking-field-guide/>
- [Miro.com](https://miro.com), Online whiteboard collaboration platform

Miro.com

[https://miro.com/app/
board/o9J_loFHXME=?
share_link_id=939721
68942](https://miro.com/app/board/o9J_loFHXME=?share_link_id=93972168942)



Slides are
available at:

<https://jefferson.box.com/s/1m0ej1iuso2bk90lc5vksawwc19sxlbn>



Thank you!

Monday, 3:15-4:15pm, Indiana Ballroom E

11A - Implementing and Assessing a Creativity-Focused Education Model as a Core Element of Learning Across Disciplines

Tuesday, 7:30-7:50am, Indiana Ballroom G

15B - A Collaborative Appraisal of Assessment Practices for Continued Improvement

Dana Scott

Dana.Scott@Jefferson.edu