

Brick a Brick: Using Applied Improvisation to Build Empathy in Design Facilitators

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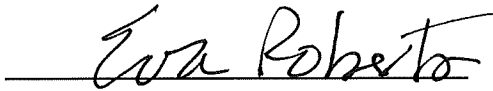
Brick a Brick: Using Applied Improvisation to Build Empathy in Design Facilitators

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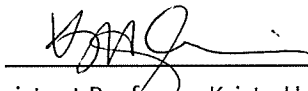
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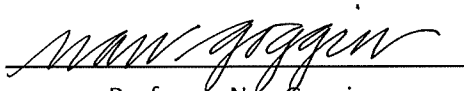


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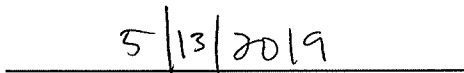


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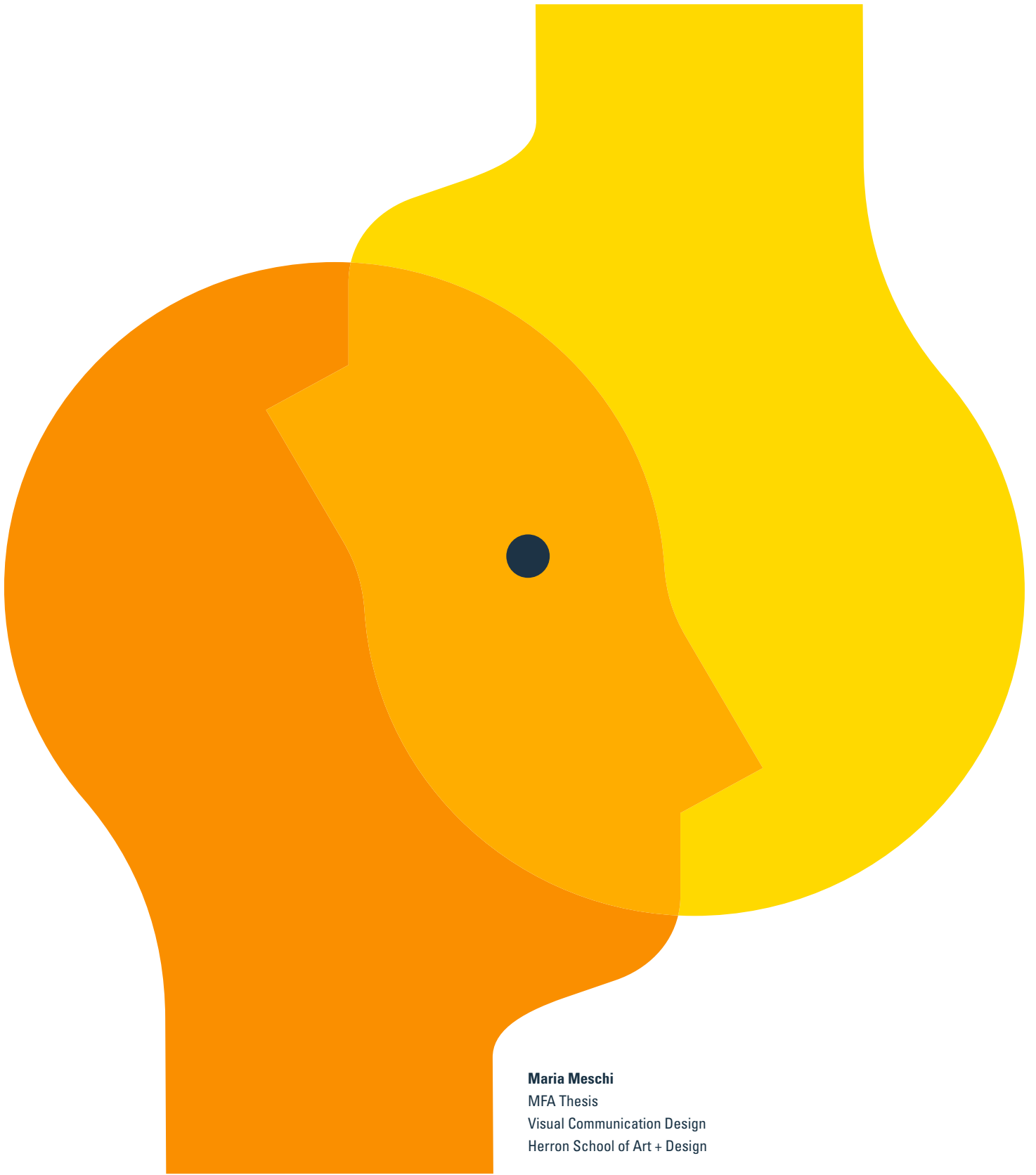
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Bring a Brick

Using Applied Improvisation to Build Empathy in Design Facilitators

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Abstract

The surge in design thinking and people-centered design worldwide has given rise to a new role for designers: design facilitator. A design facilitator is leading diverse groups of participants through the design process, providing opportunities for them to share their perspectives, and guiding them as they contribute to design solutions. These engagements require highly developed interpersonal skills, but few interventions exist to aid designers in cultivating these skills. Other disciplines have turned to applied improvisation, an approach derived from improvisational theatre, to improve communication, collaboration and other dimensions of social-emotional learning. This research examines how an applied improvisation approach might be utilized to cultivate empathy in design facilitators.

To answer this question, participatory action research was conducted with design facilitators, applied improvisation facilitators, and an instructional designer. Interviews with facilitators from both contexts resulted in a model of empathy, evidence in support of the applied improvisation approach, and perceived barriers to implementation of applied improvisation in the design context. A participatory design session with facilitators from both contexts explored the specific actions that contribute to empathic facilitation and generated conceptual prototypes of an empathic facilitation training program. Finally, primary and secondary research

were synthesized to create a solution prototype that was evaluated by an instructional designer and submitted to design conferences for peer-review.

The outcome of this research is a conceptual framework for a training program entitled, Improv for Empathic Facilitation. The solution is founded upon an experiential learning model and scaffolds learners through developing skills in four competencies: self-awareness, social awareness, collaboration, and facilitating with empathy. In addition to applied improvisation-based training, learners engage in simulated facilitation scenarios in order to practice their skills. Finally, the program utilizes a series of formative assessments by engaging in critical reflection throughout and culminates in a summative assessment at the conclusion. Criteria for the assessments is learner-generated throughout the program, honoring both their experience and expertise.

This research provides a model of how to explore the cultivation of interpersonal skills in design facilitators. Additionally, by presenting its potential impact on interpersonal skills rather than cognitive skills, this research highlights a new dimension of how the fields of design and improvisation might positively impact each other.

Keywords: applied improvisation, design facilitation, participatory design, empathy, design education, instructional design

**“Bring a brick,
not a cathedral.”**

Improvisation adage

01 Background //

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1.1 Introduction

Emotional competence is critical for design facilitators. The nature of people-centered design requires facilitators to engage with broad and diverse groups of people, build trust with these participants, and develop relationships that empower participants to share their experiences. Yet, the role of training to assist designers in developing these interpersonal and relational skills remains largely unexamined.

Other disciplines, such as business, science, law, and government, have turned to applied improvisation, an approach derived from improvisational theatre, as a strategy to help foster these skills.¹ Applied improvisation has the potential to positively impact emotional competence in design contexts as well. Improvisers are credited for their ability to spontaneously create entire shows without a script. However, this is not an inherent aptitude; professional improvisers develop the capacity to listen and collaborate through games that allow them to practice and hone these skills.² Individuals in any field can develop their interpersonal and relational skills through similar techniques and principles coupled with reflection upon the activities and their potential applications in the learner's context.

Improvisation techniques in design practices have been examined primarily in the context of supporting divergent thinking, the process of generating many ideas without judgment or evaluation.

It has proven to be successful in this application. Some research has explored improvisation's ability to help foster collaborative environments to support design processes and outcomes; however, there has been limited attention paid to the development of skills that support collaboration, such as social awareness. This research focuses on the potential of an applied improvisation approach to foster empathy, a component of social awareness, in design facilitators.

Designers have utilized other theater-based techniques, such as role-playing, to foster empathy with users. While role playing may be incorporated into some applied improvisation techniques, the approach downplays the performative nature of improvisation. Applied improvisation exercises focus on the process of how participants might respond to new and changing situations in the moment; the goal is rarely a performance. Instead, applied improvisation training seeks to improve outcomes in how a learner reacts to uncertainty and interacts with others in their own context.

By engaging with designers, trainers, and applied improvisation facilitators, this research provides a model for how applied improvisation principles and techniques might be employed in the training of design facilitators to foster empathy, which will result in better outcomes from people-centered design practices.

¹ Theresa Robbins Dudeck and Caitlin McClure, "Introduction," in *Applied Improvisation: Leading, Collaborating, and Creating Beyond the Theatre*, ed. Theresa Dudeck and Caitlin McClure (London: Methuen Drama, 2018), 1–15.

² Krista Hoffmann-Longtin, Jonathan P. Rossing, and Elizabeth Weinstein, "Twelve Tips for Using Applied Improvisation in Medical Education," 2017, <https://doi.org/10.1080/0142159X.2017.1387239>.

1.2 Research Question

How might the inclusion of **applied improvisation** principles and techniques in **design facilitation training** improve **empathy** in design facilitators?

Key terms

Applied improvisation: The umbrella term widely used to denote the application of theatre improvisation (theories, tenets, games, techniques, and exercises) beyond conventional theatre spaces to foster the growth and/or development of flexible structures, new mind-sets, and a range of inter- and intrapersonal skills required in today's VUCA (volatile, uncertain, complex, ambiguous) world. ³

Design facilitation training: continuing education for practitioners

Empathy: “the foundation of a human-centered design process.” (Both and Baggereor, 2010, p. 1). It is the ability to see things “from multiple perspectives” (Carlgren et al., 2016a, p. 51), to create “customer intimacy” (Liedtka, 2011, p. 16) is “the ability to see and experience through another person’s eyes, to recognize why people do what they do” (Schweitzer et al., 2016, p. 6). Being empathetic includes “being open, avoiding being judgmental and being comfortable with people with different backgrounds and opinions” (Carlgren et al., 2016, p. 46). ⁴

³ Dudeck and McClure, “Introduction,” 1.

⁴ Clio Dosi, Francesca Rosati, and Matteo Vignoli, “Measuring Design Thinking Mindset,” in *DS92: Proceedings of the DESIGN 2018 15th International Design Conference*, 2018, 1991–2002.

1.2.1 **Sub-questions**

1. What are key applied improvisation principles and techniques for the development of empathy?
2. Where are the opportunities to include applied improvisation in design facilitation training?
3. How might we measure a design facilitator's improvement in empathy?
4. How might we help educators include applied improvisation principles and techniques in their offerings?

1.3 Justification

Why empathy?

Design continues to shift from a designer-as-expert perspective, where users are consulted to passively contribute feedback on near-complete designs, to a participatory approach that engages users and other stakeholders throughout the design process. The solutions to complex challenges do not lie in the mind of one person and, accordingly, designers are increasingly called upon to facilitate conversations across broad groups of people, draw out their insights, and serve as a catalyst for the co-creation of solutions.

Design facilitators require expertise in design and designing, but the role also requires significant emotional competence, which refers to an individual's "capacity to identify, understand, express, manage, and use one's own feelings and those of others."⁵ In order to develop these skills, designers are recognizing the need for additional training. Organizations such as AIGA, America's largest professional membership organization for design, IDEO, a global design and consulting firm, and smaller design agencies have begun to develop professional education to meet this need, but there has been little research into the best practices in training for design facilitators. This research seeks to address that gap and provide guidelines on an approach to improving emotional competence in design facilitators, specifically the skill of empathy.

Empathy emerges from existing literature as a critical skill for designers.

Dosi, et. al define empathy in their meta-analysis of the design thinking mindset:

Empathy is "the foundation of a human-centered design process." (Both and Baggereor, 2010, p. 1). It is the ability to see things "from multiple perspectives" (Carlgren et al., 2016a, p. 51), to create "customer intimacy" (Liedtka, 2011, p. 16) It is "the ability to see and experience through another person's eyes, to recognize why people do what they do" (Schweitzer et al., 2016, p. 6). Being empathetic includes "being open, avoiding being judgmental and being comfortable with people with different backgrounds and opinions" (Carlgren et al., 2016, p. 46).⁶

While there is less literature related to the desired skills and traits of those who facilitate design engagements, it is clear that their role guiding groups of diverse participants benefits from well-developed empathy. Empathy is identified as a desired skill for design facilitators in all of the models examined in this research's Literature Review. This research will also create a model of empathy that is specific to facilitation.

⁵ Ilios Kotsou et al., "Emotional Plasticity: Conditions and Effects of Improving Emotional Competence in Adulthood," *Journal of Applied Psychology* 96, no. 4 (July 2011): 827, <https://doi.org/10.1037/a0023047>.

⁶ Dosi, Rosati, and Vignoli, "Measuring Design Thinking Mindset."

The opportunity in applied improvisation

Empathy is likewise essential for effective improvisers, thus exposing an opportunity to examine the potential of applied improvisation to make a positive impact. Applied improvisation, the use of improvisation comedy principles and techniques outside of a performance context, is an approach that offers a safe environment to foster growth in interpersonal skills, the ability to interact and work with others.

Design facilitators and improvisers are called upon to process complex situations and act quickly in response.

In both contexts, participants engage in ambiguity and rely upon each other to co-create desirable outcomes, whether they be design solutions or performances. Due to these commonalities, it is not surprising that design practitioners and educators have incorporated improvisation techniques into their practice. Research into improvisation in design indicates that improvisation has the potential to support desirable attitudes for design. However, there are gaps in the base of knowledge to consider. The first gap is in where improvisation in design has been applied. Prior examinations have focused attention on improvisation's ability to support cognitive skills, specifically idea generation in co-design sessions. This research examines improvisation as applied to interpersonal skill development. Past investigations have focused on students in university

design programs, while this research is concerned with professional design facilitators.

Assessing empathy

Another identified gap is in the assessment of empathy. Several assessments exist, including the Interpersonal Reactivity Index (IRI) developed by Davis, the Empathy Quotient (EQ) developed by Baron-Cohen, and the Consultation and Relational Empathy (CARE) Measure from Mercer, Maxwell, Heaney, and Watt. While there is value in these assessments, they are not appropriate for use in this context; some are specific to other contexts (such as CARE, which is designed for clinical use) and others measure empathy very broadly. This research will propose a model of assessment that is specific to empathy in facilitation.

Contributing to growing fields of study

Design facilitation and applied improvisation are both relatively nascent fields. As such, further study into how they might be combined will contribute to better understanding of the needs and potential of each. While this research seeks to understand if the inclusion of intentionally selected improvisation techniques in design facilitation training will positively impact empathy in design facilitators, a secondary goal is to continue the conversation begun by Elizabeth Gerber in 2007 when her research introduced “a powerful collaboration between improvisation and design.”⁷

⁷ Elizabeth Gerber, “Improvisation Principles and Techniques for Design,” 2007.

1.4 Limitations

Designers are increasingly expected to have skills and expertise in design facilitation. However, few frameworks exist that externalize the process, skills, and traits of effective design facilitation. In the existing literature, there is agreement that design facilitators must be comfortable with the design process, able to strategically guide that process, and able to engage with many diverse people throughout the process.⁸ Emotional competence, specifically the skill of empathy, contributes positively to a design facilitator's success.

The aim of this research is to examine empathy and how it might be effectively cultivated through applied improvisation principles and techniques. Due to time constraints, this research did not examine other components of emotional competence, nor did it explore other methods of skill cultivation. Additionally, empathy will only be examined as it is distinctly performed by facilitators. The empathic actions of other participants in the design process necessitates further research but was deemed outside of the scope of this project.

Due to the nascent nature of the design facilitation profession and the constraints of a masters-level thesis, the number of design facilitator participants in this study is quite limited, only three. In order to gather a more robust number of perspectives, the results of this research have been submitted to national design conferences* for review. Evaluative data will continue to be collected after publication.*See "Abstract submissions" on page 55.

An assumption is being made throughout this research about the nature of design facilitation training. Since very little design facilitation training material is available to the public, it is assumed that trainers are seeking new and/or better approaches in which to cultivate design facilitators' emotional competence. Attempts to validate this assumption in the initial methods of research were not conclusive – participants offered mixed perspectives on the value of design facilitation training as a whole and in this intervention in specific.

⁸ John Body, Nina Terrey, and Leslie Tergas, "Design Facilitation as an Emerging Design Skill: A Practical Approach," *DTRS8: Interpreting Design Thinking*, University of Technology Sydney, Sydney, 19-20 October, 2010, 61–70.

1.5 Literature Review

1.5.1 Complexity in design

Designers increasingly engage with wicked problems, originally defined by Horst Rittel, a design theorist and university professor, in “Dilemmas in a General Theory of Planning.” Rittel outlines ten characteristics that describe a wicked problem:

1. There is no definitive formulation of a wicked problem.
2. Wicked problems have no stopping rule.
3. Solutions to wicked problems are not true-or-false, but good-or-bad.
4. There is no immediate and no ultimate test of a solution to a wicked problem.
5. Every solution to a wicked problem is a “one-shot operation”; because there is no opportunity to learn by trial-and-error, every attempt counts significantly.
6. Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan.

7. Every wicked problem is essentially unique.
8. Every wicked problem can be considered to be a symptom of another problem.
9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem’s resolution.
10. The planner has no right to be wrong.⁹

In response to the increasing complexity inherent in wicked problems, there has been a shift from the designer-as-expert perspective to a participatory approach that involves users and other stakeholders throughout the design process.

In the first half of the 20th century, designers followed a “designer-as-expert” model, what Ezio Manzini calls the Conventional Mode.¹⁰ Users were engaged on the back end of the design process to provide feedback on nearly-complete designs, operating in a near-passive role.¹¹

⁹ Horst W J Rittel and Melvin M Webber, *Dilemmas in a General Theory of Planning*, Working Paper (University of California, Berkeley. Institute of Urban & Regional Development): No. 194 ([Berkeley, Institute of Urban & Regional Development, University of California] 1972., 1972).

¹⁰ Elizabeth B.-N. Sanders and Pieter Jan Stappers, *Co-Creation and the New Landscapes of Design*, *CoDesign*, vol. 4 (Taylor & Francis, 2008), <https://doi.org/10.1080/15710880701875068>; Ezio Manzini, *Design, When Everybody Designs: An Introduction to Design for Social Innovation*, *Design Thinking, Design Theory* (Cambridge, Massachusetts : The MIT Press, [2015], 2015).

¹¹ AIGA, “AIGA Designer 2025: Why Design Education Should Pay Attention To Trends” (AIGA, 2017), <https://educators.aiga.org/wp-content/uploads/2017/08/DESIGNER-2025-SUMMARY.pdf>; Sanders and Stappers, *Co-Creation and the New Landscapes of Design*.

Since the 1970s, design has increasingly engaged with more complex problems at the level of systems, where the interdependency of various elements must be considered for a design to be successful. As stated in the AIGA Designer 2025, a report published to aid design educators in updating and developing curricula to address the changing needs of the design community:

Problems are increasingly situated within larger systems that are characterized by interdependent relationships among elements or activities. Relationships are physical, psychological, social, cultural, technological, and economic in their effects, requiring interdisciplinary expertise. Constraints compete for priority and are unstable in their influence on the problem situation. Change in one relationship reconfigures others. Methods for working at this scale are different from those developed for solving simple problems and require collaboration among experts in different fields.¹²

As Elizabeth B.-N. Sanders and Pieter Jan Stappers, thought leaders in the landscape of design research, explain, “We are no longer simply designing products for users. We are designing for the future experiences of people, communities and cultures who now are connected and informed in ways that were unimaginable even 10 years ago.”¹³

In order to successfully engage in the design of these experiences, designers have found it advantageous to invite users and stakeholders to “provide expertise, and participate in the

informing, ideating, and conceptualizing activities in the early design phases.”¹⁴ This process of engaging potential users and stakeholders throughout the design process has recently become known as people-centered design.¹⁵ The goal of people-centered design is to create solutions with long-lasting, positive impact while taking into account potential negative impacts and mitigating them. The ability to do this successfully is grounded in cultivating the necessary mindsets and behaviors in addition to design skills.

Mindsets of designers

A mindset can be identified as “the set of attitudes, opinions, beliefs and behaviors that characterize an individual, a group, or an organization, mostly developed by experience.”¹⁶ The concept of mindsets was popularized by Carol Dweck, a Stanford psychologist, in her 2006 book *Mindset: The New Psychology of Success*. Dweck argues that individuals can be placed on a continuum based on their implicit beliefs about ability: an individual with a fixed mindset believes success to come from innate ability, whereas an individual with a growth mindset believes that success can be cultivated through hard work and training.¹⁷ Since the publishing of this book, the concept of mindsets as inherent beliefs that guide individual’s actions has spread widely, resulting in thought leaders and researchers from many disciplines defining new mindsets for their areas of practice.

However, there is a significant gap in the literature of mindset research. As Robert P. French II, professor of Organizational Leadership, writes in “The Fuzziness of

¹² AIGA, “AIGA Designer 2025: Why Design Education Should Pay Attention To Trends,” 3.

¹³ Sanders and Stappers, *Co-Creation and the New Landscapes of Design*, 4:6.

¹⁴ Sanders and Stappers, 4:1.

¹⁵ Pamela Napier and Terri Wada, “Defining Design Facilitation: Exploring and Advocating for New, Strategic Leadership Roles for Designers and What These Mean for the Future of Design Education,” *Dialectic* 1, no. 1 (2016): 154–178, <https://doi.org/10.3998/dialectic.14932326.0001.110>.

¹⁶ Jochen Schweitzer, Lars Groeger, and Leanne Sobel, “The Design Thinking Mindset: An Assessment of What We Know and What We See in Practice,” *Journal of Design, Business & Society* 2, no. 1 (2016): 71–94.

¹⁷ Carol S Dweck, *Mindset: The New Psychology of Success*. (New York : Ballantine Books, 2006., 2006).

Mindsets,” “...the ways in which scholars implement and conceptualize theories of mindsets vary significantly. These divergent conceptualizations reveal disparate theoretical frameworks and definitions and fluctuate, not only between disciplines but also among scholars of the same discipline in the study of the same mindset.”¹⁸ Therefore, a certain degree of skepticism should be utilized when examining mindset constructs. In this research, mindsets are explored as a framework to understand the desired skills and traits of designers.

In the context of Design, several frameworks exist that outline the mindset of designers practicing people-centered design and design thinking. While the components of these constructs fluctuate, there are commonalities that can be identified. A meta-analysis of the design thinking mindset in literature was able to define 19 components across 17 frameworks.¹⁹

IDEO, an international design and consulting firm credited with popularizing human-centered design, defines the core mindsets of design as

- creative confidence, the belief that everyone is creative;
- empathy, seeing from others’ perspectives;
- embracing ambiguity, approaching the problem without a clear view of the solution;
- “Make It”, externalizing ideas;
- learning from failure;
- valuing iteration as a path to improvement; and
- optimism, the belief that a solution exists and can be found.²⁰

An examination of design thinking in practice by innovation managers produced the following eleven components of the design thinking mindset:

1. Empathetic Towards People’s Needs and Context
2. Collaboratively Geared and Embracing Diversity
3. Inquisitive and Open to New Perspectives and Learning
4. Mindful of Process and Thinking Modes
5. Experiential Intelligence
6. Taking Action Deliberately and Overtly
7. Consciously Creative
8. Accepting of Uncertainty and Open to Risk
9. Modelling Behaviour
10. Desire and Determination to Make a Difference
11. Critically Questioning²¹

In their meta-analysis of design thinking mindsets, Dosi, Rosati and Vignoli further explore these and other models, concluding, “it is possible to identify some common constructs like being focused on the user, being empathetic, collaborative and open to diversity, being comfortable with ambiguity, embracing risk and experimentation, mindfulness and optimism.”²²

People-centered design requires attention to both the design process and the skills and traits that contribute to its success.

¹⁸ Robert P French II, “The Fuzziness of Mindsets: Divergent Conceptualizations and Characterizations of Mindset Theory and Praxis,” *International Journal of Organizational Analysis* 24, no. 4 (September 2016): 673.

¹⁹ Dosi, Rosati, and Vignoli, “Measuring Design Thinking Mindset.”

²⁰ +Acumen, “Facilitator’s Guide for Introducing Human-Centered Design” (+Acumen, 2017), <http://plusacumen.org/courses/design-kit-facilitators-guide-to-introducing-human-centered-design/>.

²¹ Schweitzer, Groeger, and Sobel, “The Design Thinking Mindset: An Assessment of What We Know and What We See in Practice.”

²² Dosi, Rosati, and Vignoli, “Measuring Design Thinking Mindset.”

While design thinking processes have been adopted widely in business, healthcare, education, and other fields, research suggests that long-lasting

success can only be achieved through the development of people's capabilities and the behaviors they exhibit.²³

1.5.2 Design facilitation

The design thinking process is applied in a number of emerging practices, including interaction design, service design, transformation design, and experience design. Each of these disciplines integrate elements of traditional design, with its focus on product and technology, with the new elements of design as focused on purpose and experience.²⁴ In order to make meaning and deliver a desirable experience, designers are engaging users and stakeholders that will be affected by the design in new ways, requiring designers to step into a new role: that of design facilitator.

As design challenges become more complex, it has become vital to make sure all considerations are taken into account when devising a solution. A way to ensure this is to engage the people inside, and often outside, the systems throughout the design process. For example, Body, et al. share a case of public backlash to a new tax in Australia:

In a letter to shareholders, Rio Tinto's Chairman, the head of one of Australia's largest mining companies, stated, "Rio Tinto, like the rest of the mining industry, has grave concerns about the fundamentals of the new tax. It has been developed in a vacuum and is divorced from the day-to-day realities of business" (Du Plessis 2010, p.1). This is but one

*example of a policy implementation issue arising from a design process divorced from all the necessary considerations.*²⁵

In order to capture the concerns and desires of all stakeholders, designers are being called upon to guide these diverse participants. People-centered design practices are at their core acts of co-creation, defined as any undertaking of collective creativity.²⁶ In contrast to when the designer took sole authorship of a design, new techniques have emerged to harness the collective creativity of broad groups of people who have differing levels of expertise, creativity, and comfort with the design process. This new role has emerged to facilitate the conversations of the people in the process, navigate these perspectives, and drive the search for new solutions.

The role of a design facilitator is acknowledged in the field of design, however the literature elaborating on its role and practices is limited.²⁷ The existing definition of design facilitation can be understood as the "distinctive capacity necessary for driving and leading participatory design or co-design approaches that are fundamental in people-centered design"²⁸ in order to "navigate through these perspectives while serving as a catalyst for the

²³ Schweitzer, Groeger, and Sobel, "The Design Thinking Mindset: An Assessment of What We Know and What We See in Practice," 32.

²⁴ Sanders and Stappers, *Co-Creation and the New Landscapes of Design*.

²⁵ Body, Terrey, and Tergas, "Design Facilitation as an Emerging Design Skill: A Practical Approach," 62.

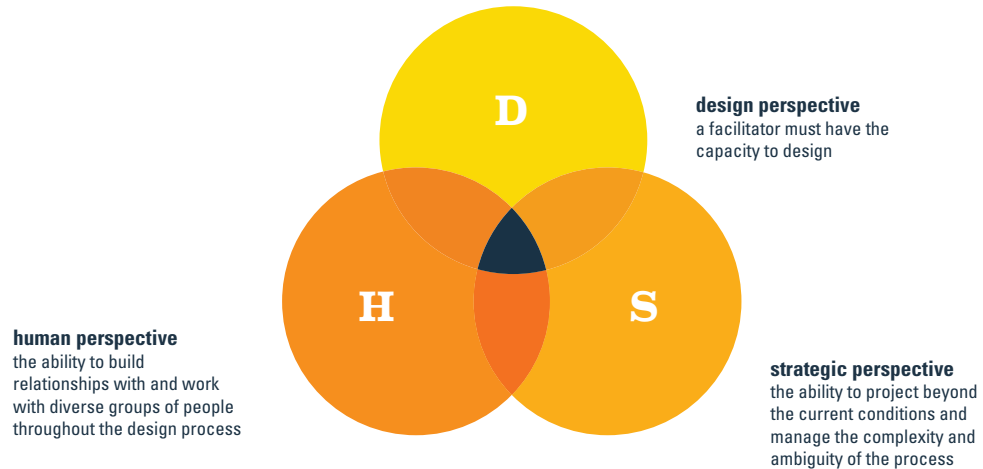
²⁶ Sanders and Stappers, *Co-Creation and the New Landscapes of Design*, 4:2.

²⁷ Lauren Tan, "Understanding the Different Roles of the Designer in Design for Social Good. A Study of Design Methodology in the DOTT 07 (Designs of the Time 2007) Projects" (Doctoral Thesis, Northumbria University, 2012), http://nrl.northumbria.ac.uk/8454/1/tan_lauren_phd.pdf.

²⁸ Pamela Napier and Terri Wada, *Design Thinking Jumpstart Workbook* (Indianapolis, 2018), 61.

Figure 1 ▶

Body, Terrey, and Tergas's three perspectives of design facilitators.



identification of new solutions and opportunities to align seemingly disparate interests.”²⁹

Two frameworks examine the role of design facilitator across multiple dimensions. Body, et. al, identifies these elements as three perspectives: 1) design perspective, a facilitator must have the capacity to design; 2) strategic perspective, the ability to project beyond the current conditions and manage the complexity and ambiguity of the process; and 3) human perspective, the ability to build relationships with and work with diverse groups of people throughout the design process.³⁰ Aguirre, Agudelo, and Romm separate their model of design facilitation tools into six dimensions across two categories: Core: functional, intentional, participatory; and Design: creative, experiential, and human-perspective.³¹

These models highlight the design facilitator’s role in assisting participants in navigating the design process through “leading, guiding, and providing scaffolds as well as clean slates to encourage people at all levels of creativity.”³² Additionally, in order to build relationships with diverse participants, the models posit that design facilitators should demonstrate high levels of empathy. It is perhaps obvious, but worth stating, that people-centered design practices require being mindful of people, not just as users of the end artifact of the design process, but also as humans with feelings, relationships, and needs during the process.

Napier and Wada posit that design facilitators need to “comport themselves in ways that help them build and positively utilize empathetic and sympathetic understandings of and about those who will be affected by the outcomes of design processes in which they are involved.”³³ Aguirre, et al.’s

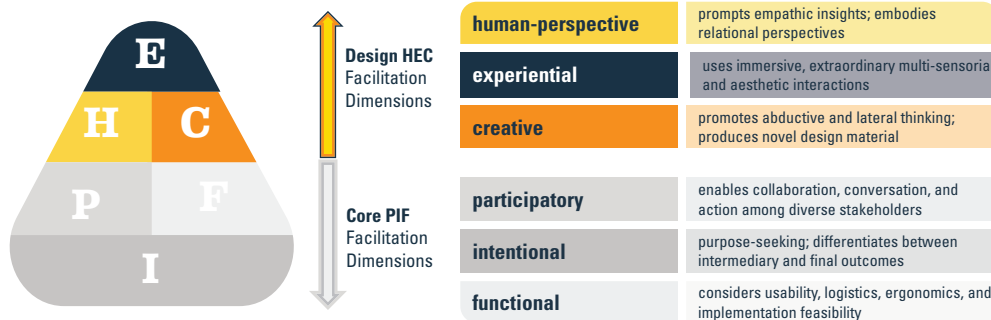
²⁹ Body, Terrey, and Tergas, “Design Facilitation as an Emerging Design Skill: A Practical Approach,” 64.

³⁰ Body, Terrey, and Tergas, 65.

³¹ Manuela Aguirre, Natalia Agudelo, and Jonathan Romm, “Design Facilitation as Emerging Practice: Analyzing How Designers Support Multi-Stakeholder Co-Creation,” *She Ji: The Journal of Design, Economics, and Innovation* 3, no. 3 (2017): 198–209, <https://doi.org/10.1016/j.sheji.2017.11.003>.

³² Sanders and Stappers, *Co-Creation and the New Landscapes of Design*, 4:11.

³³ Napier and Wada, “Defining Design Facilitation: Exploring and Advocating for New, Strategic Leadership Roles for Designers and What These Mean for the Future of Design Education,” 170.



◀ **Figure 2**
Aguirre, Agudelo, and Romm's six dimensions of design facilitation tools.

Participatory dimension in their model of design facilitation tools speaks to the need to empathize with the diversity of participants.³⁴ Body et al.'s model of design facilitation places emphasis on the human perspective and the value of empathy in relating to participants.³⁵

Design facilitators must hone not just design skills but the leadership and interpersonal skills that contribute positively to working with people.

Preparation

As governments, private organizations, and non-profits adopt design thinking processes to tackle challenges at a systems-level, the need for skilled design facilitators becomes more apparent. The need to train them appropriately is also emerging. Unger, Nunally and Willis offer, "It takes skill and practice to be able to facilitate [on behalf of] people, and facilitation is truly the foundation of an effective design practice."³⁶ The

training of design facilitators is presently a patchwork of private professional development opportunities. This kind of training is not widely available in university curricula, notably because "there simply aren't enough American design educators who have acquired the expertise in this area to teach it well."³⁷ Understanding of how these professional trainings are presented is limited, as training materials are proprietary content of the offering businesses and are not publicly available.

One notable exception is the Facilitator's Guide to Human-Centered Design offered for free online by Acumen+ and IDEO. This course equips participants to facilitate a workshop that introduces participants to the human-centered design process. It provides a template for both the workshop itself as well as the preparation required to host the workshop (inviting participants, securing a location, and procuring supplies for workshop activities).³⁸ While this guide does invite potential facilitators to consider their role as well as the

³⁴ Aguirre, Agudelo, and Romm, "Design Facilitation as Emerging Practice: Analyzing How Designers Support Multi-Stakeholder Co-Creation."

³⁵ Body, Terrey, and Tergas, "Design Facilitation as an Emerging Design Skill: A Practical Approach."

³⁶ R. Unger, D. Willis, and B. Nunally, *Designing the Conversation: Techniques for Successful Facilitation* (San Francisco, CA: New Riders/Peachpit, a division of Pearson Education, 2013), xi.

³⁷ Napier and Wada, "Defining Design Facilitation: Exploring and Advocating for New, Strategic Leadership Roles for Designers and What These Mean for the Future of Design Education."

³⁸ +Acumen, "Facilitator's Guide for Introducing Human-Centered Design."

mindsets they will need to cultivate in their participants, it is limited to the content available for one specific workshop. It does not provide the depth of understanding required to devise one's own design process and participatory events therein.

In order to prepare designers to facilitate, attention must be paid to the way desired skills and traits are cultivated.

1.5.3 Applied improvisation

Design facilitators and improvisers are called upon to process complex situations and act quickly in response. In both contexts, participants engage in ambiguity and rely upon each other to co-create desirable outcomes, whether they be design solutions or performances.

Due to these commonalities, applied improvisation is an approach that offers the potential to cultivate the skills in designers that will assist in navigating the strategic and human perspectives of design facilitation.

Improvisational theatre was born out of the work of theatre directors Keith Johnstone and Viola Spolin, which developed theories and techniques to help actors to be focused in the present moment and to collaborate to create more realistic performances through play.³⁹ From the games and exercises Johnstone and Spolin utilized in rehearsal and teaching, improvisation evolved into a performance art form. Notable theaters, including The Second City, Upright Citizens Brigade, CSz Worldwide, and iO produce a variety of performances that are co-created by the performers without the use of a script.

When improvisation in performance is examined for its core competencies, it becomes clear that what improvisers do

are highly desirable behaviors in many other contexts: working collaboratively, generating ideas spontaneously, remaining flexible, actively listening, taking risks, accepting failure, motivating others, and solving problems.⁴⁰ Even Spolin's original work, though it had the intent of producing a performance, was a tool to foster communication and collaboration between immigrant children who did not necessarily share a common language.⁴¹ The field of applied improvisation emerged from the desire to cultivate these qualities off-stage in other populations.

Theresa Dudeck and Caitlin McClure define applied improvisation as “the umbrella term widely used to denote the application of theatre improvisation (theories, tenets, games, techniques, and exercises) beyond conventional theatre spaces to foster the growth and/or development of flexible structures, new mind-sets, and a range of inter- and intrapersonal skills required in today's VUCA (volatile, uncertain, complex, ambiguous) world.”⁴²

While often categorized within the field of applied theatre, applied improvisation differs in several significant ways. Applied theatre practice often results in the creation of a performance, while applied improvisation practice almost never does. Applied theatre is concerned with social change and community empowerment,

³⁹ Viola Spolin, *Improvisation for the Theater: A Handbook of Teaching and Directing Techniques* (Evanston, Ill.: Northwestern University Press, 1963); Keith Johnstone, *Impro: Improvisation and the Theatre*. (New York: Routledge, 1981., 1981).

⁴⁰ Dudeck and McClure, “Introduction,” 2.

⁴¹ Sam Wasson, *Improv Nation: How We Made a Great American Art* (Boston, MA: Houghton Mifflin Harcourt, 2017).

⁴² Dudeck and McClure, 1.

and applied improvisation, though it can be used in those contexts, is often practiced with for-profit organizations. Finally, applied theatre is concerned with engaging marginalized communities to tackle systemic problems, which is often a very different goal from that of an applied improvisation facilitator working with, for example, a corporate sales team.⁴³

Applied improvisation in practice

Applied improvisation is practiced in corporate, education, healthcare, and non-profit settings; however, research examining its effects is limited. The initial interest in applied improvisation has focused on the improviser's creativity, specifically the ability to quickly generate ideas. While creativity is multi-dimensional, and therefore difficult to define; in the context of improvisation, creativity has been examined through divergent thinking and originality.⁴⁴ In a 2012 study, Carine Lewis found increased cognition scores in participants who engaged in improvisation activities. These scores were most significant in the area of divergent thinking and in expert improvisers, suggesting that the duration and frequency of engagement has an impact on the degree of improvement.⁴⁵ This finding suggests that increasing comfort with divergent thinking can assist in breaking out of fixed mindsets as one becomes more cognitively flexible.

Another measure of creativity is in innovation output. In what may be the first attempt to empirically test arguments based on improvisation principles, Vera and Crossan conducted a study in a municipal setting wherein

teams participated in an improvisation intervention in order to test its effect on their innovation output. Respondents participated in a pre- and post-intervention assessment; team member surveys independent variables (skill, context, and demographics), while supervisors rated the dependent variable (team innovation). While the study did not find a clear effect of improvisation on innovation, it did find that improvisation training increases the frequency with which team members improvise as well as the quality of their improvisation. The finding that improvisational skills can be developed in organization members indicates the focus of research can now turn to where these skills can be most effective in improving team function.

Social and emotional learning through applied improvisation

In order to determine how applied improvisation interventions can improve team and interpersonal function, it is important to examine the skills that contribute to success in this area, and conditions under which people can develop these skills. This area of study and practice has come to be known as social and emotional learning (SEL).

The Collaborative for Academic, Social, and Emotional Learning defines SEL as “the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions.”⁴⁶ SEL frameworks promote intrapersonal, interpersonal, and cognitive competence. SEL is closely related to emotional competence (EC) and emotional intelligence (EI), which refers to an

⁴³ Dudeck and McClure, “Introduction.”

⁴⁴ Carine Lewis, “The Relationship Between Improvisation and Cognition,” August 2012, <http://uhra.herts.ac.uk/handle/2299/8890>.

⁴⁵ Lewis.

⁴⁶ Collaborative for Academic, Social and Emotional Learning (CASEL), *What Is SEL?*, accessed October 31, 2018, <https://casel.org/what-is-sel/>.

Figure 3 ►
Core SEL competencies



individual’s “capacity to identify, understand, express, manage, and use one’s own feelings and those of others.”⁴⁷

A study examining whether emotional competence can be improved in adults examined the outcomes of short interventions at the trait level, meaning the ways participants behaved in their life contexts without prompting (their “disposition”).⁴⁸ This study found significant improvement in EC traits, indicating that it is indeed possible to improve EC, provided the conditions inherent to the participants and interventions are met.

The study identified motivation as the only required condition that impacted participant improvement in EC; participants must see the value in improving their EC and want to change. The intervention was designed to enable participants to better understand the importance of emotional competencies, improve their self-awareness, and then practice developing competencies through experiential exercises. These elements of motivation and practice, when coupled with follow-up over time (such as email reminders of ways to apply EC in daily situations), lead to sustained improvement in participant EC.

SEL calls for interventions that incorporate a social component. Jude Treder-Wolff, an applied improvisation facilitator and social worker explains, “Defenses and beliefs are learned through social situations, so we need direct experiences in healthy social situations to learn new, more useful forms of coping with psychological threats that are adapted to the current need. A heightened emotional experience in a creative social environment, one that includes other people and takes in their support and understanding, can be transformational.”⁴⁹ Applied improvisation exercises provide the brain ways to practice responding to uncertainty under the conditions that promote healthy adaptation rather than defensive blocking. Treder-Wolff defined these conditions as:

- A social environment of safety and support
- Emotional heightening of experience which drives attention to the new information
- Experiences that trigger the brain’s reward chemistry—experiences of a “win” combined with social interaction are ideal

⁴⁷ Kotsou et al., “Emotional Plasticity: Conditions and Effects of Improving Emotional Competence in Adulthood,” 827.

⁴⁸ Kotsou et al., “Emotional Plasticity: Conditions and Effects of Improving Emotional Competence in Adulthood.”

⁴⁹ Jude Treder-Wolff, *A Controlled Sense Of Crisis: Social-Emotional Learning Through Applied Improvisation In Health* (2018), <https://medium.com/@judetredewolff/a-controlled-sense-of-crisis-social-emotional-learning-through-applied-improvisation-in-health-b7ecb78644e0>.

- **Novelty and creativity, which are associated with the brain chemistry of reward.**⁵⁰

EC and SEL through applied improvisation have been examined through the lens of collaboration. Collaboration can be simply defined as one or more people working together to create or achieve something;⁵¹ however, effective collaboration often requires significant emotional and interpersonal competence. The Kelly Leonard, Executive Vice President of the improvisational comedy enterprise The Second City, speaks to applied improvisation's impact on collaboration skills, saying improvisation "improves emotional intelligence, teaches you to pivot out of tight and uncomfortable spaces, and helps you become both a more compelling leader and a more collaborative follower."⁵²

In defining the practices that allow improvisers to co-create, Gary Hirsch of On Your Feet, a consultancy that uses applied improvisation to drive organizational change, highlights the difference between accepting behavior and blocking behavior.⁵³ When an offer⁵⁴ is made, a participant can choose to shut down collaboration by blocking or participate in the problem-solving process by accepting. The practice of accepting and helping co-create is often referred to as "Yes, And" and is widely accepted as one of the tenets of improvisation.

While improvisation is about spontaneous creation, it is only possible to do so if all participants are aware of the rules of engaging, what Vera and Crossan call the "Context for Effective Improvisation."⁵⁵ There are many frameworks for improvisation rules. Hirsch lists four:

1. **See everything as an offer**
2. **Notice More**
3. **Be willing to be changed**
4. **Be "Fit and Well"**

Ed Trout, Artistic Director of CSz Indianapolis, a theatre that performs and teaches improvisation comedy, teaches improvisation ground rules with the acronym "PEACH: pay attention, ensemble first, acceptance, commitment, and have fun."⁵⁶ Julie Huffaker and Karen Dawson of Deeper Funner Change, a consultancy dedicated to improving collaboration utilize what they call "structural design elements" of improv: "articulation of a clearly shared process, every person encouraged to participate, turn-taking, working rapidly within a constrained time-frame, and no single person seen as more important than any other person."⁵⁷

All of these rule frameworks contain elements of interest to those practicing design facilitation. "Pay attention" and "Notice more" encourage active listening, both to what is said and what is portrayed through non-verbal cues. "Be willing to be changed" encourages participants to stay open to possibility and speaks to the ambiguity of the

⁵⁰ Treder-Wolff.

⁵¹ **COLLABORATION** | Definition in the Cambridge English Dictionary, accessed November 19, 2018, <https://dictionary.cambridge.org/us/dictionary/english/collaboration>.

⁵² Kelly Leonard and Tom Yorton, *Yes, And: How Improvisation Reverses "No, But" Thinking and Improves Creativity and Collaboration*, First Edit (New York: HarperCollins, 2015), 3–4.

⁵³ Gary Hirsch and Amy Veltman, "A Burger, Fries, and a Side of Improv," in *Applied Improvisation: Leading, Collaborating, and Creating Beyond the Theatre*, ed. Theresa Robbins Dudeck and Caitlin McClure (London: Metheun Drama, 2018), 19–38.

⁵⁴ In improvisation, an offer is any piece of information provided by your scene partner or your environment.

⁵⁵ Dusya Vera and Mary Crossan, "Improvisation and Innovative Performance in Teams," *Organization Science* 16, no. 3 (2005): 203–224, <https://doi.org/10.1287/orsc.1050.0126>.

⁵⁶ Edward Trout, *Re: Question about Improv* (Message to Maria Meschi, 2018).

⁵⁷ Julie Huffaker and Karen Dawson, "The Fish and the Fishbowl: An Adventure in Using Applied Improvisation to Unleash Collaborative Intelligence," in *Applied Improvisation: Leading, Collaborating, and Creating Beyond the Theatre*, ed. Theresa Robbins Dudeck and Caitlin McClure (London: Metheun Drama, 2018), 191.

design process. “Ensemble first” and “no single person seen as more important than any other person” are guidelines for empathetically facilitating a group of diverse participants where status and expertise vary.

In addition to the skill of collaboration, improvisation builds on the trust and support of each participant for each other. Vera and Crossan write, “although teams may improvise in the absence of trust and respect, improvisation thrives in their presence because team members know they can take risks and be supported by others.”⁵⁸

1.5.4 Applied improvisation and design

Due to the commonalities mentioned above, it is not surprising that design practitioners and educators have incorporated improvisation techniques into their practice.

Research into improvisation approaches in design contexts indicates that improvisation has the potential to support desirable attitudes for design.

Elizabeth Gerber first used improvisation workshops delivered to undergraduate and graduate design students to explore the application of improvisation in design. She identifies five areas where improvisation may support design: 1) creative collaboration, which includes consciously reacting to and building on the ideas of others; 2) fostering innovation through placing value on obvious connections between ideas; 3) supporting spontaneity through consciously avoiding patterns of associations; 4) learning through error by celebrating failure; and 5) developing presentation skills through the practice of active real-time editing of stories.

Gerber finds that improvisation supports desirable attitudes for effective design. She notes, however, that it will require the expertise of both designers and improvisers to truly integrate improvisation principles into design practice.⁵⁹

In order to further her initial research, Gerber used examples from a five-year period in which she taught improvisation to design practitioners and students to explore how improvisation can support group brainstorming, a common method in participatory design. Gerber finds that there is a parallel social component to both design and improvisation: “The value of improvisation is in its potential to support group dynamics that support the collaborative design work practice of brainstorming.”⁶⁰ Gerber illustrates how improvisation principles and practices support the rules of brainstorming popularized by Alex F. Osborn in the 1950s: withhold judgment, build on the ideas of others, generate a large quantity of ideas, free-wheel, and identify a leader. While more empirical research is needed to better understand the relationship between improvisation and brainstorming

⁵⁸ Vera and Crossan, “Improvisation and Innovative Performance in Teams,” 207.

⁵⁹ Gerber, “Improvisation Principles and Techniques for Design.”

⁶⁰ Elizabeth Gerber, “Using Improvisation to Enhance the Effectiveness of Brainstorming,” in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '09)* (New York, NY: ACM, 2009), 97–104, <https://doi.org/10.1145/1518701.1518718>.

with regard to the quality and quantity of innovative ideas generated, Gerber draws many connections between the desired outcome of each brainstorming rule and the improvisation tenets and techniques that can support designers in practice.⁶¹ Additionally, the fifth rule, identifying a leader, indicates support for the role of a design facilitator in brainstorming.

Aseem Inam sought to further Gerber's findings by exploring the five areas where improvisation can positively impact urban design practice.⁶² Inam included extensive improvisation training in an urban design studio for graduate students. By examining student reflections, Inam finds that improvisation training contributed positively to the building of trust within design teams, the development of flexible creative processes, and the ability to embrace design as an ongoing process instead of final product.

Based on the existing literature, there appears to be a connection between design and improvisation. The relationship between these fields has only begun to be explored, focusing primarily on idea generation. While Gerber and Inam explore the role that improvisation training can play in fostering collaboration, they do not delve into the skills and traits that contribute positively to collaboration. It has been argued that effective collaboration, as demonstrated through applied improvisation principles, requires a degree of empathy in the form of self- and other-awareness.⁶³ Gerber mentions previous studies that examine empathy in interaction designers, but these utilized role-playing and performance in their methodology, and as such are outside of the scope of applied improvisation.⁶⁴

⁶¹ Gerber.

⁶² Gerber, "Improvisation Principles and Techniques for Design."

⁶³ Joanna Schloss, *Why True Analytic Collaboration Relies on Empathy*, 2015, <https://www.cmswire.com/cms/analytics/why-true-analytic-collaboration-relies-on-empathy-028469.php>.

⁶⁴ Gerber, "Using Improvisation to Enhance the Effectiveness of Brainstorming."

“As you navigate through the rest of your life, **be open to collaboration.** Other people and other people's ideas are often better than your own.”

Amy Poehler,
actress and improviser

02 *Research* //

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2.1 Methodology

Research was conducted following participatory action research methodology. The goal of action research is to develop practical and relevant solutions in response to the identified problems and opportunities.⁶⁵ Action research is an established methodology in the social sciences, and in the context of design may be referred to as “participatory design.”

Sanders defines participatory design as “an approach to design that attempts to actively involve the people who are being served through design in the process to help ensure that the designed product/service meets their needs.”⁶⁶

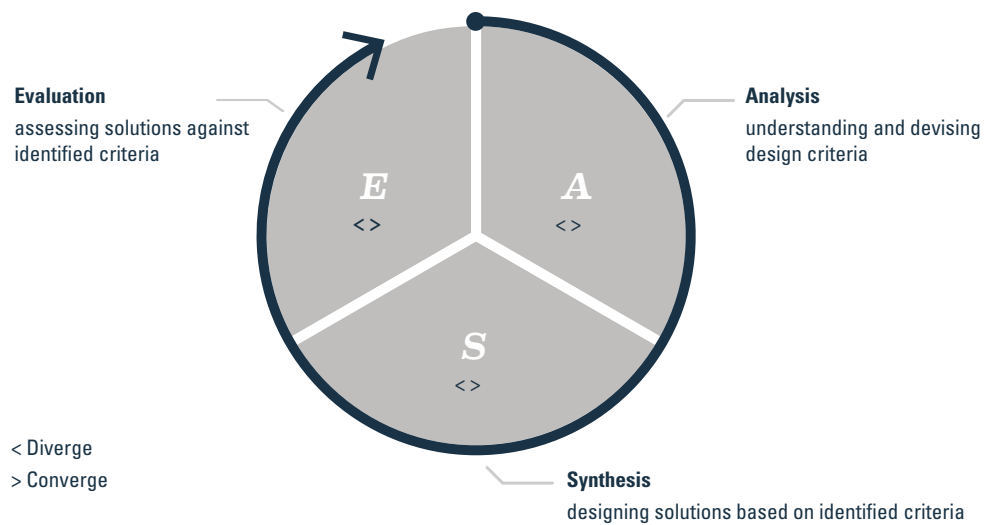
Unlike user-centered design, which establishes the designer as the expert and the user a reactive subject, participatory design calls for the active inclusion of people (including users, implementers, and other stakeholders) in all stages of the design process as partners.⁶⁷ This approach strives to ensure that both the problems identified and solutions formulated will be relevant and appropriate to the people in the systems affected.

⁶⁵ Christopher Crouch and Pearce, Jane, *Doing Research in Design* (London: Bloomsbury Academic, 2014), 144.

⁶⁶ Elizabeth B.-N Sanders and Pieter Jan Stappers, *Convivial Toolbox : Generative Research for the Front End of Design*. (Amsterdam: BIS, 2012), 19.

⁶⁷ Sanders and Stappers, *Co-Creation and the New Landscapes of Design*.

Figure 4 ▶
Blended design
process model



2.1.1 Design process

Several existing design process diagrams* were explored when approaching this research, including applied creativity expert Min Basadur's Simplex Process, the conventional analysis synthesis evaluation (ASE) model presented by Bryan Lawson & Kees Dorst in their book, *Design Expertise*, and global innovation consultancy IDEO's 3 core activities of design thinking. Each of these models is comprised of three nonlinear stages which allow the designer to shift between modes of understanding. *See "Design Process Models" on page 84.

For the purpose of this research, a blended process model was created. This model combines the cyclical nature of Basadur's model with the conceptual framework of the ASE model, and it maintains the fluidity required to allow for co-evolutionⁱ of the problem and solution.

In the Analysis stage, the designer collects data about the problem space, analyzes it to develop understanding of needs and people in the system, and

utilizes it to construct the criteria for desirable solutions. In "Synthesis", the designer uses the data and constructs a solution that can be measured against the design criteria. In "Evaluation", the solution is assessed against the design criteria.

Within each stage of the process model, the researcher and participants engage in active divergence followed by active convergence. In the 1950s, psychologist J.P. Guilford coined the terms "convergent thinking" and "divergent thinking" during his research into creativity and intelligence.⁶⁸ⁱⁱ Divergent and convergent thinking play an active role in the design process, and Basadur refers to them as process skills. He describes active divergence as the generation of many ideas without regard to their viability or completeness, while active convergence requires evaluation of ideas and willingness to proceed. Basadur also highlights a third process skill that lies between divergence and convergence: deferral of judgment. When deferring judgment, participants

⁶⁸ Sternberg, Robert J., and Elena L. Grigorenko. "Guilford's Structure of Intellect Model and Model of Creativity: Contributions and Limitations." *Creativity Research Journal* 13, no. 3–4 (October 1, 2001): 309–16. https://doi.org/10.1207/S15326934CRJ1334_08; Michael, W B, A L Comrey, and B Fruchter. "J.P. GUILFORD: Psychologist and Teacher." *Psychological Bulletin* 60 (January 1963): 1–34.

refrain from converging during times of divergence (and vice versa) and employ an open-minded trust in the design process.⁶⁹

Methods

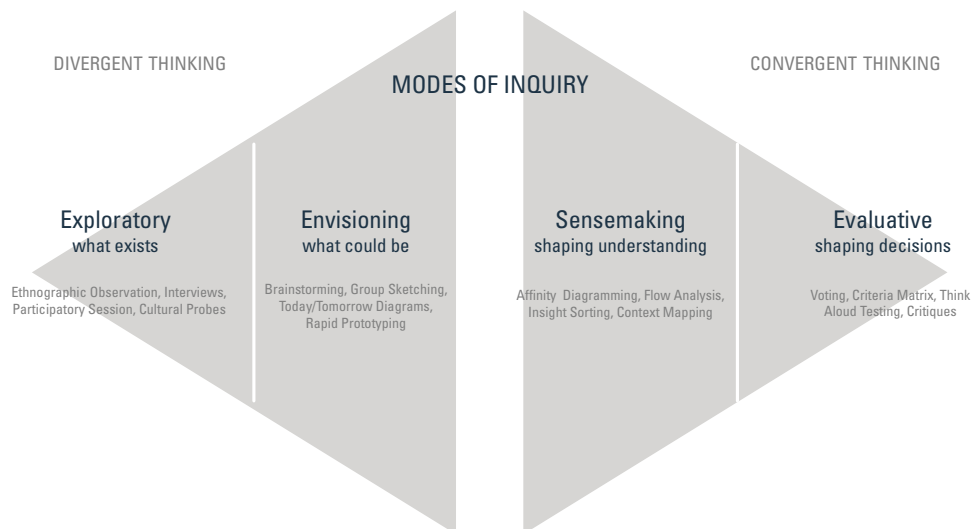
Research methods were developed to encompass four modes of inquiry as outlined by Collabo Creative exploratory, envisioning, sensemaking, and evaluative.ⁱⁱⁱ

- **Exploratory methods examine the current reality.**
- **Envisioning methods invite participants to imagine a desirable future.**
- **Sensemaking methods create a plausible understanding of a system.**
- **Evaluative methods assess ideas, solutions, models, and other outcomes based on criteria.**

In the Analysis stage, four primary methods were conducted: a literature review, interviews, analogous models, and a participatory design session. This stage established an understanding of the problem space's current context, provided insight into user desires and barriers to success, and allowed for the construction of criteria to measure a successful solution.

Synthesis was comprised of secondary research and the generation of a solution prototype. This stage brought the insights generated in the Analysis stage together into a framework that could be evaluated against the established criteria.

Evaluation took place through two primary methods: a think-aloud protocol with a subject matter expert, and peer-review of the research to provide user feedback. This stage assessed the success of the solution prototype and generated insights for iteration and improvement.



◀ **Figure 5**
Collabo Creative's
Modes of Inquiry

⁶⁹ Min Basadur. *Simplex, a Flight to Creativity : [How to Dramatically Improve Your Performance]*. Creative Education Foundation Pr., 1998.



2.2 Analysis

The Analysis stage is spent collecting data to understand the needs and desires of users and others within the problem space. In this research, Analysis methods included interviews, analogous models, and a participatory design session. The collected data explored both the current state and envisioned desirable solutions.

2.2.1 Methods

Interviews

Interviews provide direct contact with users and others in the research context. Interviews allow a researcher to collect firsthand accounts of desires, experiences, and perceptions.⁷⁰ The interview method was selected because it is an effective way to gain understanding about the research question from the perspective of subject matter experts with relevant experience. Additionally, because there are few local experts that meet the research criteria and the constraints of the study did not allow for travel, this method provided access to qualified participants regardless of physical location.

Exploratory interviews* were conducted via web conference with three applied improvisation facilitators and one design facilitator. The objective of speaking with the applied improvisation facilitators was to gain an understanding of how they seek to develop participant

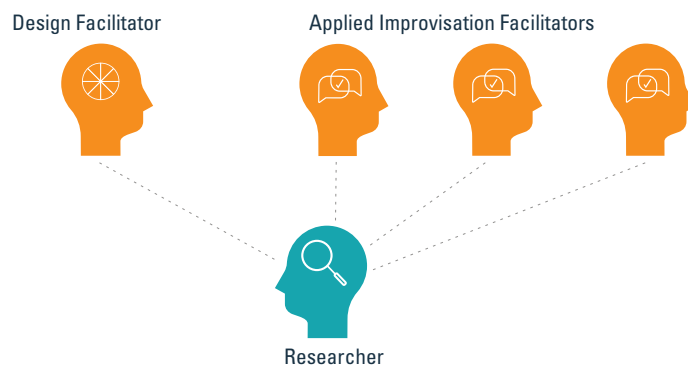
empathy in their sessions, as well as to generate ideas for activities and approaches. The objective of speaking with the design facilitator was to understand whether there is a desire for tools to build empathy in the training of design facilitators, and to understand how empathy manifests in their design facilitation.*See "Questions - Interviews" on page 85.

Participants in this method were practicing applied improvisation facilitators and professionals offering design facilitation training with at least five years of facilitation experience. Participants were identified through recommendation of thought leaders in each field: Pamela Napier and James Ansaldo. Napier is an Associate Professor at the Herron School of Art and Design and co-founder of service design firm Collabo Creative, where part of her research focuses on the role of design

◀ **Interviews** allow a researcher to collect firsthand accounts of desires, experiences, and perceptions.



Exploratory



⁷⁰ Bruce M Hanington and Bella. Martin, *Universal Methods of Design : 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions* (Gloucester, Mass.; Hove: Rockport ; RotoVision [distributor], 2012).

Affinity diagramming ▶
creates meaningful
clusters of data.



facilitation in design education. Ansaldo is a research scholar at the Indiana University Center on Education and Lifelong Learning. His research supports teacher professional learning, through, among other things, facilitating applied improvisation around flexibility in the classroom. He is a founder and co-director of Camp Yes And, an improv summer camp for teens on the autism spectrum and teachers.

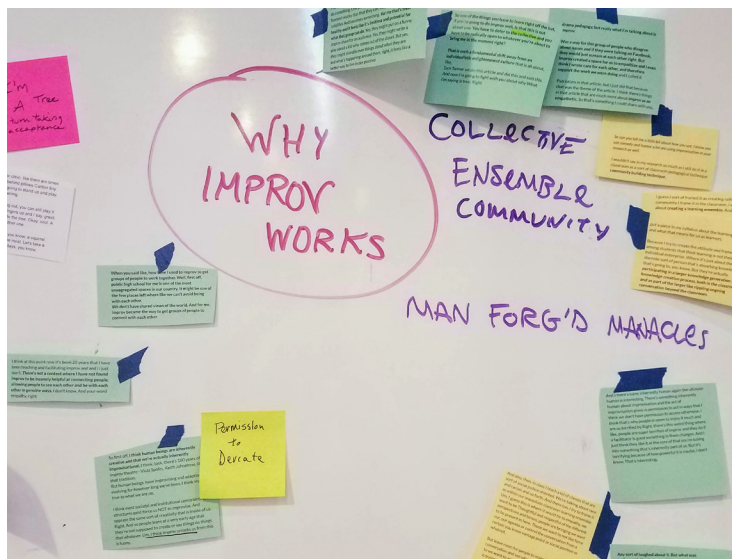
Interviews lasted approximately thirty minutes each. With the permission of the participants, the interviews were recorded and transcribed using the Zoom conferencing tool.

Data analysis

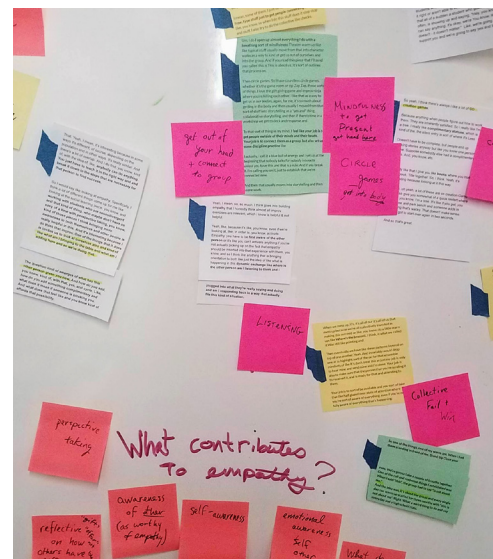
After collecting data, it is systematically reviewed and examined for themes and insights that can be used to support understanding. During this process, a researcher begins to make sense of the data and how to move the research forward. **Affinity diagramming** is a sensemaking method of data analysis. It is an inductive exercise used to create meaningful clusters of data.⁷¹

The interview transcripts were reviewed and printed, with each interview on a different shade of paper. The transcriptions were sliced apart into individual stories and anecdotes, then taped to a whiteboard, creating an affinity diagram.

For the initial analysis, the interview questions provided a framework for organizing the data and searching for themes. As new themes emerged, the affinity diagram shifted to reflect the new insight clusters.



Sensemaking interview data



⁷¹ Hanington and Martin.



Key findings

After conducting this method, a conceptual a model of empathy was developed to guide the remainder of the research. The interviews also revealed key findings in three areas: 1) support for an applied improvisation intervention, 2) techniques to measure facilitator success, and 3) perceived barriers to implementation.

Empathy model

For the remainder of this research, empathy will be defined as the combination of self-awareness, other-awareness, and the belief that there is value in all perspectives.

Self-awareness: "My experiences give me a unique perspective. I am responsible for how I respond to information and other people."

Other-awareness: "Others' experiences give them a perspective that is different from mine, regardless of how similar they may be to me."

Belief: "I believe all perspectives are valid and valuable to the design process. Diversity of perspective can lead to better outcomes for all."

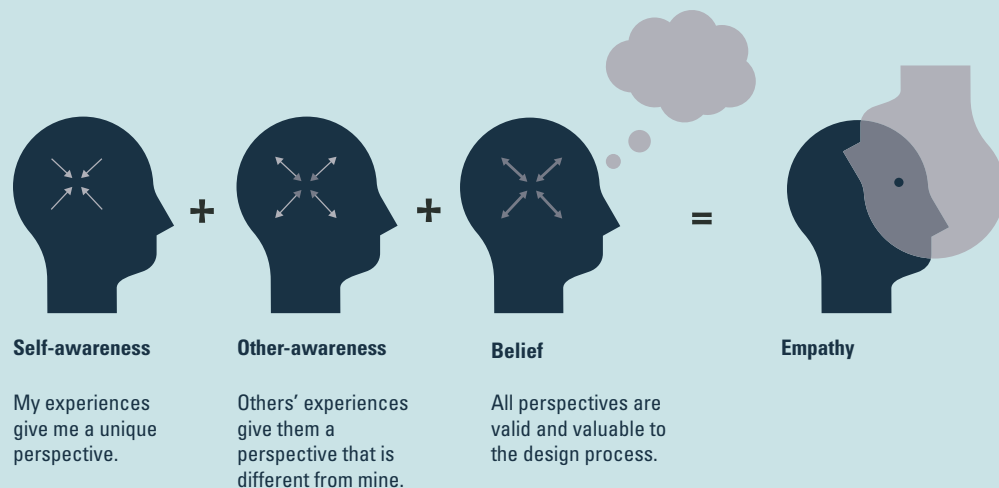


Figure 6 ▲

A model of empathy

Support for an applied improvisation intervention

The applied improvisation facilitators provided insight into why an applied improvisation intervention is relevant and appropriate for this population, drawing more parallel between the design and improvisation contexts.

In every cry of
every Man,
In every Infants
cry of fear,
In every voice: in
every ban,
The **mind-forg'd**
manacles I hear

excerpt from "London"
by William Blake ►

Applied improvisation provides participants with the freedom to be creative. The interviewees posited a belief that creativity is inherent, but that the ability to practice creativity is stifled in our culture. The supportive environment of an applied improvisation training removes the fear of judgment and allows participants to freely play. One interviewee referenced William Blake's poem "London," — improvisation offers an opportunity to break free from the mind forg'd manacles of society.

Applied improvisation promotes distress tolerance. Improvisers and designers engage in situations that resist neatly packaged solutions. Practicing low-stakes discomfort through applied improvisation can help train the brain to tolerate that ambiguity in design practice.

Applied improvisation requires active participation. By its nature, applied improvisation training cannot be experienced without doing. Designers exhibit a 'bias towards action', the notion that progress is not made solely through discussion and analysis, but through testing ideas.⁷² This connection, made explicit, can help designers understand why applied improvisation is valuable.

Applied improvisation embodies co-creation. In order to succeed in improvisation, the focus must shift from the individual desires to what serves the ensemble. It parallels the participatory design experience and provides learners with clear connections between the experience and their design practice.

Techniques to measure facilitator success

As all participants were facilitators, the interviews provided an opportunity to explore what success in facilitation looks like, and to draw connections between this and sub-question 3: How might we measure a design facilitator's improvement in empathy?

All interviewees expressed initial regret that they do not have a measurement for their success. When the researcher probed more deeply, three elements were revealed as indicators of success:

1. Participants feel a sense of joy and **accomplishment**, even if they can't articulate why.
2. Participants exhibit **growth** in their behaviors, such as no longer relying on prompts to complete an exercise or the ability to articulate their feelings in a way they could not before the facilitation.
3. Participants are able to make and articulate **connections** between the exercises and their own context or practice.

⁷² Schweitzer, Groeger, and Sobel, "The Design Thinking Mindset: An Assessment of What We Know and What We See in Practice."

Perceived barriers to implementation

The applied improvisation facilitators provided an understanding of their requirements for developing impactful training. Additionally, the design facilitator interviewed offered a perspective that reflects a potential user of this research's solution. Through the analysis of all these perspectives, three primary barriers to implementation were identified: preserving the fidelity of instruction, the constraints of time, and disinterest on the part of participants.



Preserving the fidelity of instruction: All of the applied improvisation facilitators expressed their belief that facilitation of applied improvisation sessions requires skill beyond that of executing a prepared curriculum. If the solution involves integrating this training into existing design training, attention will need to be paid to developing and training the facilitators.



Disinterest on the part of participants: The design facilitator interviewed expressed a belief that the best way to learn to facilitate is by doing. This interview indicated that the potential users of the proposed solution may not see the value in it.



The constraints of time: The applied improvisation facilitators see the most impact of their training through sustained engagement over weeks or months. There is concern that a short engagement with applied improvisation techniques will not shift participant attitudes.

Analogous models

Analogous models are ► similar structures present in other contexts.



Exploratory

Analogous models are similar structures present in other contexts. This exploratory method is effective for examining what makes other models successful and for seeking inspiration in the research context.⁷³

The materials from five design education programs were examined for an understanding of best practices, opportunities to include applied improvisation techniques, and how empathy is presented or discussed. All of the programs presented information on how to facilitate design engagements to varying degrees. This method was limited to examining the programs' supplemental materials (including agenda and workbooks), as attending the live programs was not practical given the scope of this research project.

This rationale was selected as an effective way to study professional offerings in the problem space and to provide a framework for participants in the design session to utilize as they began ideation. As these programs are presented by private organizations*, access to the materials analyzed was granted by Pamela Napier, who has attended several of these trainings and developed one as part of her research and practice in design facilitation. *For more information on the offering organizations, see "Organizations - Analogous Models" on page 86.

Data analysis

A table was created to compare the programs across five dimensions: program name, offering organization, program length, content covered, and how empathy was presented or discussed.

Table 1 ►
Overview of data analysis

Program Name	Offering Organization	Length of program	What is covered?	How is empathy presented/discussed?
Facilitation by Design	AlGA Design for Good	2 days	1. Our Focus 2. Preparation 3. On the Ground 4. Following up	Much discussion in roles Removing judgement as a component of collaboration Facilitators "infuse...human-centered approach"
Design Thinking	Studio Science	unknown	1. Mindset 2. Skillset 3. Toolset	Included in Mindset as a value "working collaboratively" included in Skillset
Understanding and Leading Cross Disciplinary Innovation	NextD Leadership Institute	2 days	1. Process 2. Value for Others' Perspectives 3. Innovative Attitudes 4. Plan/Lead/Debrief	No direct mention of "empathy" Related language included in Effective Team Styles and Interpersonal Skills
Innovators' Guidebook	Center for Care Innovations	unknown	Process	Principle #1 Guidelines for empathy
Design Facilitation Jumpstart	Collabo Creative	1 day	5. Role of Facilitator 6. Qualities 7. Challenges 8. Follow-through	Quality – "be attentive" Mindset – "inclusive"

⁷³ Vijay. Kumar, *101 Design Methods : A Structured Approach for Driving Innovation in Your Organization* (Hoboken, New Jersey: John Wiley & Sons Inc., 2012).



Key finding

This method revealed an opportunity to examine the role of empathy in facilitation as distinct from empathy in other contexts within design (for example, as a participant in a design engagement). While all programs cover the importance of empathy, “Facilitation by Design” and “Design Facilitation Jumpstart” are the only two that touch upon how facilitators display empathy.

How do facilitators
demonstrate empathy?



How might it be different
from how participants
demonstrate empathy?

Figure 7 ▲

Opportunity to explore
empathic facilitation

Reframing the research question

The underlying premise in the research question asserted that applied improvisation techniques should be incorporated into existing professional training programs. Given the constraints of time, the concern over how to ensure fidelity in the facilitation of applied improvisation techniques, and

the breadth of content already being presented in design training programs revealed in the preceding methods, the research shifted to the generation of a standalone training program.

The following methods responded to the following more specific design challenge:

How might we design a training program using applied improvisation principles and techniques to improve empathy in design facilitators?



Participatory design session

While participatory design can be understood as an approach to research, it is also a method by which the people affected by the problem space come together to collaborate and share their diverse perspectives in a structured, facilitated session.⁷⁴ A participatory design session was devised and facilitated for a group of design facilitators and applied improvisation facilitators.

Two design facilitators represented the perspective of the intended user of this research's solution. Two applied improvisation facilitators represented the perspective of content experts. The facilitators each brought a wealth of

experience facilitating engagements in their respective disciplines for clients in non-profits, private firms, Fortune 500 companies, and community organizations across many industries.

The purpose of the session was to establish objectives and content for training, establish content and supporting components of the training, and generate prototypes of a training program. In order to meet the objectives, the participants were facilitated through a series of methods scaffolded in such a way as to allow each to contribute their perspective and collaborate with the group to co-create desirable outcomes.

Design Facilitators



Applied Improvisation Facilitators



Researcher



⁷⁴ Hanington and Martin, *Universal Methods of Design : 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*, 2012.

Methods

The session contained methods that engaged the participants in all modes of inquiry: exploratory, envisioning, sensemaking, and evaluative. Each method described below contained one or more modes of inquiry as participants actively diverged and then converged to generate insights.

Mindmaps create a visualization of thoughts and connections. The primary topic/concept is placed in the middle and lines connect related thoughts and concepts, creating a system of connections.



Reflection

At the beginning of the session, all participants were asked to individually reflect on their facilitation practice. They were provided with a worksheet that prompted them to consider the **actions** they take before, during, and after a facilitated engagement. *See "Reflection Worksheet" on page 87.

For the purpose of this research, "action" is defined as "anything done with intent." This allows our discussion to encompass behaviors, approaches, methods, and other activities that facilitators do in practice.

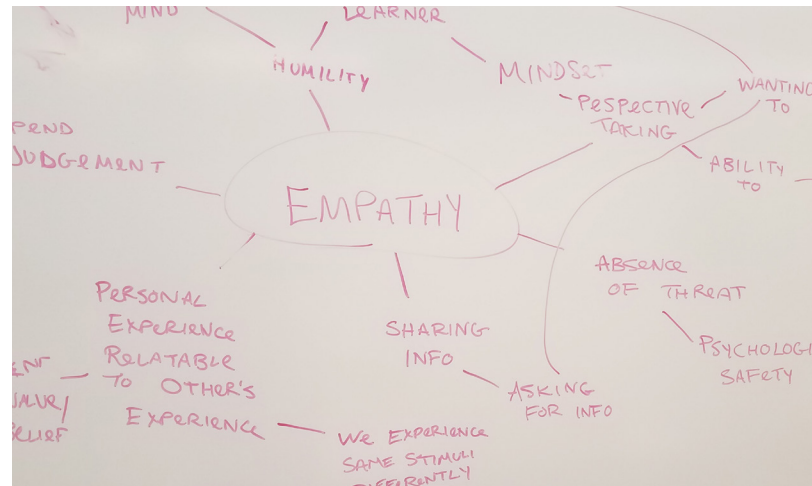
Mindmap

Mindmaps create a visualization of thoughts and connections. The primary topic/concept is placed in the middle and lines connect related thoughts and concepts, creating a system of connections.⁷⁵

The participants were asked to consider and discuss how they understand empathy. This discussion was captured into a visual map of empathy and the elements that contribute to it. This exploratory mindmap served as a reference to support ideation.



Mindmapping



Mindmap

⁷⁵ Mind Map | Service Design Tools, accessed April 7, 2019, <http://servicedesigntools.org/tools/15>.

Ideation session #1

Ideation is a creative process where ideas are generated and communicated. In an ideation session, participants from backgrounds are facilitated through a quick, structured engagements to facilitate the generation and evaluation of ideas.⁷⁶

In the initial ideation session, participants used the mindmap and reflection worksheet as references and diverged to generate a collection of actions that facilitators take to demonstrate and cultivate empathy in their sessions. Once this collection of ideas was large enough to identify clusters and themes, the participants underwent sensemaking to create an affinity diagram of their collective insights. Participants then converged by using the evaluative method of voting for the actions they 1) believe to be most crucial for empathic facilitation, and 2) observe that facilitators struggle most to demonstrate.

Ideation session #2

In order to develop the content and supporting components of the training, the participants engaged in a second ideation session. Participants divided into pairs by their professional practice in order to connect the data to their perspectives as users or content owners. Each pair envisioned ideas in response to a prompt: The designers responded to the question: “How might this training be structured to support long-term adoption of learned techniques / strategies?” The improvisers responded to the question: “How might applied improvisation support and/or cultivate empathic actions?”

After divergence, each pair conducted the sensemaking method of affinity diagramming to identify the themes inherent in their ideas. The group then reconvened as a whole to discuss their ideas and the emerging themes. An evaluative synthesis of the discussion was then facilitated, creating criteria for the development of a solution.

◀ **Ideation sessions** utilize the insights and frameworks developed in the initial research to generate solution concepts.



Ideation session #1
Exploratory, Sensemaking,
Evaluative



Ideation session #2
Envisioning, Sensemaking,
Evaluative



Ideating in pairs



Affinity diagramming

⁷⁶ Kumar, 101 Design Methods : A Structured Approach for Driving Innovation in Your Organization.



Concept prototyping



Concept prototypes ▶ turn solution ideas into a tangible form. This allows users to interact with and provide feedback on the concept.



Envisioning

Concept prototype

Concept prototypes turn solution idea into a tangible form. This allows users to interact with and provide feedback on the concept.⁷⁷

The participants developed concept prototypes in order to envision a training program that fulfills the desires and needs identified throughout the session. The participants again formed pairs, this time with one improviser and one designer in each. This was done to ensure both perspectives were reflected in the prototype. Each pair created a low-fidelity prototype training program that reflected what might occur before, during, and after the training. The pairs then presented their prototype to the other pair and the facilitator. Each participant offered feedback on what they appreciated in each prototype as well as recommendations for improvement. *See "Concept Prototype Tool" on page 87.

Data analysis

In order to begin analysis, all of the ideas generated throughout the design session were transcribed. The data was then examined for themes first by individual method, then collectively. The emerging themes developed into an understanding of both what should be covered by the training program as well as how it should be addressed.

⁷⁷ Kumar.



Key findings

What should the program address?

This session provided some key insights into the opportunity identified in the analogous models method: the role of empathy in facilitation as distinct from empathy in other contexts within design. The participants agreed upon three primary concerns of empathic facilitation: “reading the room,” managing problematic participants and situations, and creating an environment that is conducive to productive collaboration.



“Reading the room” can be understood as being present and responding appropriately to participants and situations as they occur. Participants lamented facilitators who come with a prepared agenda and are unable or unwilling to modify their plans as new information emerges during a session.



Managing problematic participants and situations requires a facilitator to proactively respond as the situation develops. It also requires balancing empathy for participants with their role to keep to the objectives of the facilitated engagement. Participants commented that they have observed facilitators who do not act in hopes that the situation will resolve without confrontation as well as facilitators who respond harshly, effectively shutting down session participants’ willingness to engage.



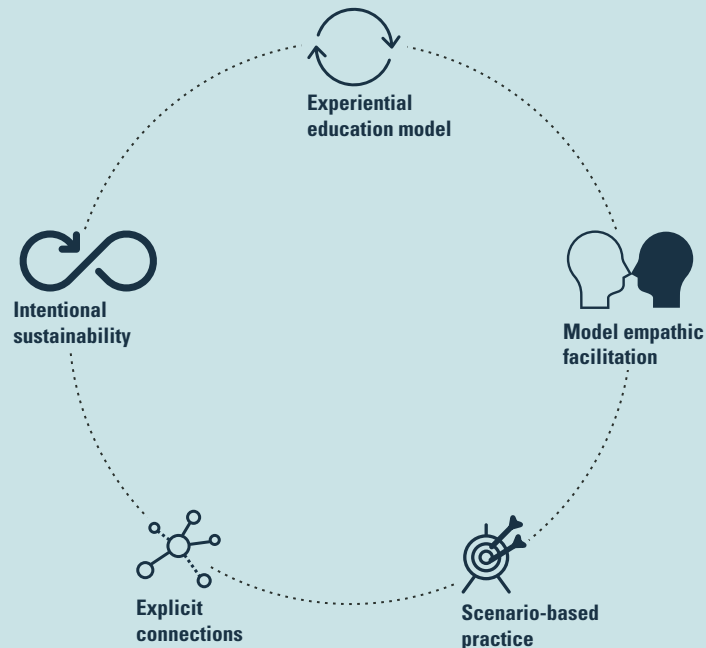
Creating an environment that is conducive to productive collaboration means setting expectations and promoting an atmosphere where people are able and eager to share. Participants noted that psychological safety is a necessary component in the expectation of collaboration from participants. Psychological safety can be defined as “being able to show and employ one’s self without fear of negative consequences of self-image, status or career.”⁷⁸ Without psychological safety, participants in group environments may withhold ideas and comments because they fear being judged. Empathic facilitation creates an environment where all participants feel supported and can engage without fear.

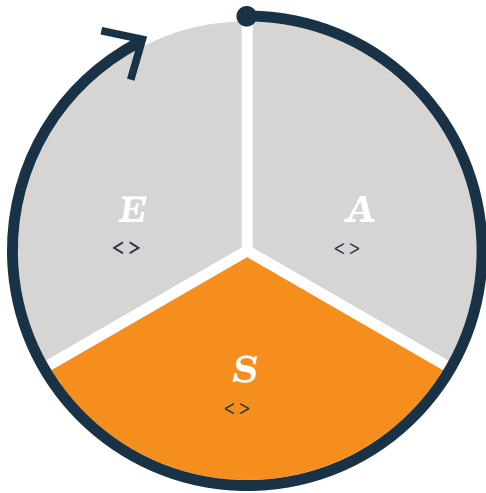
⁷⁸ William A. Kahn, “Psychological Conditions of Personal Engagement and Disengagement at Work,” *Academy of Management Journal* 33, no. 4 (December 1990): 708.

How should the program address these elements?

Participants identified five components that construct the philosophy of their desirable training program.

1. The curriculum should be based on an experiential education model.
2. The curriculum must draw clear connections between the applied improvisation experiences and their applicability to design facilitation.
3. The program must provide opportunities to practice empathic facilitation in safe spaces.
4. Program instructors must model empathic facilitation throughout all engagements with learners.
5. The program should be designed for intentional sustainability, meaning learners should be supported through training and after completing the program. Mechanisms should be in place for learners who wish to engage more deeply with the content.





2.3 Synthesis

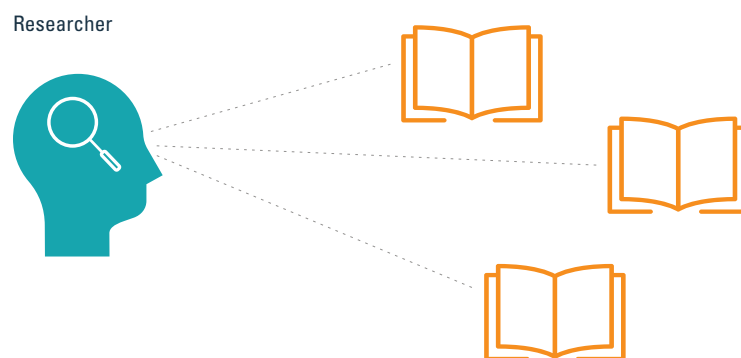
Synthesis is, as Jon Kolko^{iv}, author of *Exposing the Magic of Design*, states, the link between “the potential for the future state and the creation of something new.”⁷⁹ It is a form of sensemaking, wherein data collected throughout Analysis is organized and manipulated in order to make meaning that leads to a solution. While sensemaking occurred throughout the research process, there were two primary methods of Synthesis: secondary research, and the development of a solution prototype.

⁷⁹ Jon Kolko, *Exposing the Magic of Design : A Practitioner's Guide to the Methods and Theory of Synthesis* (Oxford: Oxford University Press, 2015), 38.

2.3.1 Methods

Secondary research

Analysis of the data from the participatory design session revealed the need for secondary research into experiential learning, including its models and assessments. Understanding from this research informed the development of the initial solution prototype.





Key finding

David Kolb⁸⁰ is a psychologist and educational theorist whose experiential learning theory presents a four-stage model of learning. As described by Saul McLeod⁸¹, psychologist and researcher at the University of Manchester,

Effective learning is seen when a person progresses through a cycle of four stages: of (1) having a concrete experience followed by

(2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalizations (conclusions) which are then (4) used to test hypothesis in future situations, resulting in new experiences.⁸⁰

According to Kolb, each stage supports the others and learning is only effective when all four are employed.

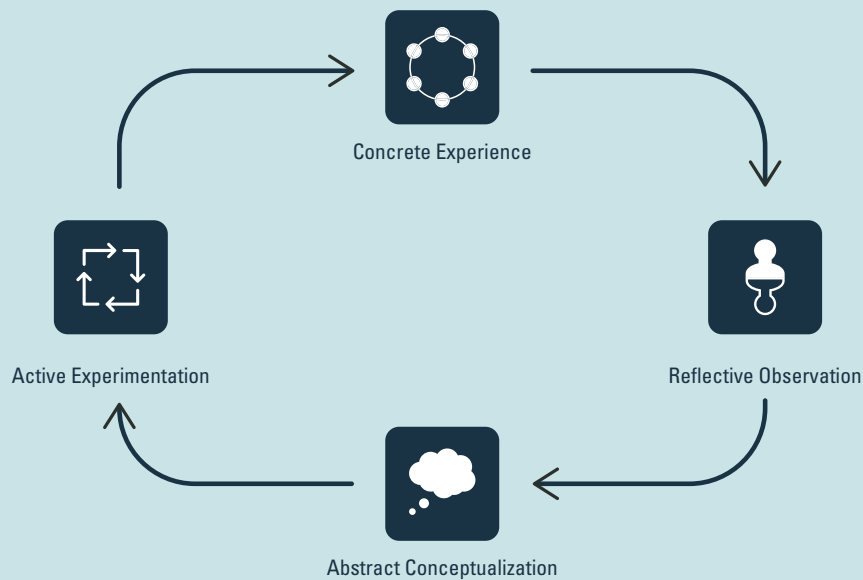


Figure 8 ▲
David Kolb's Experiential Learning Cycle

⁸⁰ Saul McLeod, *Kolb's Learning Styles and Experiential Learning Cycle* | *Simply Psychology*, 2017, <https://www.simplypsychology.org/learning-kolb.html>.

Kolb's is not the only model of experiential learning. An analysis of adult experiential learning models published in the journal *Comparative Professional Pedagogy* concludes:

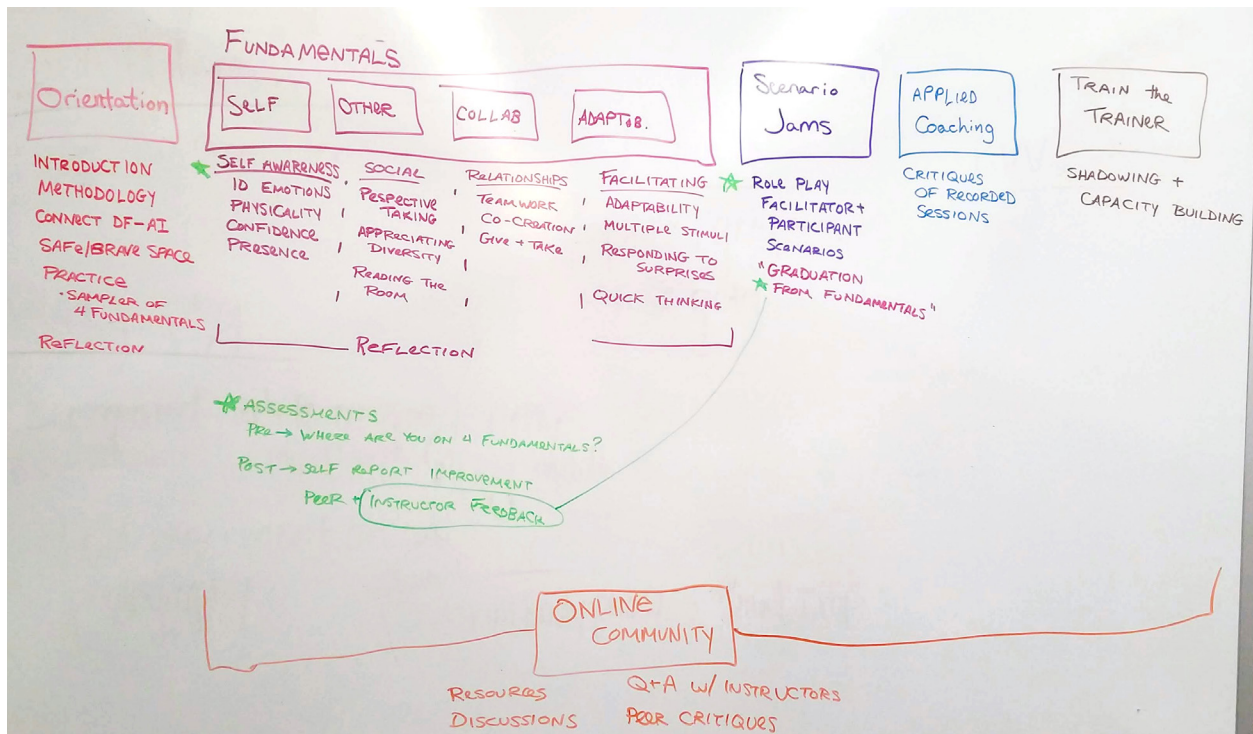
*The experiential learning provides students engagement into direct experiences close to real-world problems and situations. To make the decision, students need to analyze what they know, what they do not know, and how to learn it. Secondly, the instructor facilitates, not directs students' progress. Thirdly, experiential learning ensures strong motivation to learn. It motivates students to reflect on their existing knowledge and make it deeper through reflection; transfer their prior learning experience to new context; acquire new ideas, principles, and skills. Eventually, these skills help students to become self-directed life-long learners.*⁸¹

These characteristics confirm that a curriculum based on experiential learning is appropriate and desirable for this solution. Participants in both the participatory design session and interview methods indicated their belief that the best way to learn is by doing. Utilizing an experiential learning model provides the opportunity for experiences that are grounded in solid learning theory.

Experiential learning also offers some insights into how to address the assessment of a learner's progress throughout the solution training program. The nature of experiential learning leads to outcomes that are unique to each learner. Additionally, the process a learner engages in is as important as the outcome and success should be measured in both. Therefore, assessment can be challenging. However, McGill University's "Guidelines for Assessment of Experiential Learning" outlines learner-directed strategies that employ reflection, such as reflective journals, co-creation of assessment criteria, and self/group-evaluation as ways maintain the learner's ownership of their education while providing for metrics to assess progress.⁸²

⁸¹ Maiya Dernova, "Experiential Learning Theory As One Of The Foundations Of Adult Learning Practice Worldwide," *Comparative Professional Pedagogy* 5, no. 2 (2015): 57, <https://doi.org/10.1515/rpp-2015-0040>.

⁸² Teaching and Learning Services, "Guidelines for Assessment of Experiential Learning" (Montreal: Teaching and Learning Services, McGill University, 2014).



Initial prototype

Solution prototype

A solution prototype is a more refined and higher fidelity artifact representing the solution, allowing for thorough interaction and evaluation by the design team and users.⁸³

At this point in the design process, the imagined alternatives that have been forming throughout Analysis are built into concrete models in this envisioning method.⁸⁴ In order to develop a model and ultimately an artifact of “what could be,” all of the data gathered throughout the project was examined, themes highlighted and connections made explicit. A low-fidelity flowchart was sketched to illustrate the steps of the training program and how learners would engage with it at a high level.

Solution prototyping is an iterative method, allowing designers to interact with and improve each version through testing. The initial flowchart was refined; supporting information and concrete components were added at each step. This visual map facilitated the next stage of the design process, Evaluation.

◀ **Solution prototypes** allow for interaction and evaluation.



⁸³ Kumar, *101 Design Methods: A Structured Approach for Driving Innovation in Your Organization*; Hanington and Martin, *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*, 2012.

⁸⁴ Hugh Dubberly, Shelley Evenson, and Rick Robinson, “The Analysis-Synthesis Bridge Model,” *Interactions* 15, no. 2 (2008): 57–61, <https://doi.org/10.1145/1340961.1340976>.



2.4 Evaluation

Solution prototypes are evaluated based on relevant criteria that emerged from Analysis and Synthesis. This may lead the solution to re-enter the ASE cycle as feedback is incorporated into new iterations of the solution. Evaluation in this project took place in two phases. First, an expert in instructional design engaged with the prototype in a think-aloud protocol. Second, the project abstract has been submitted to design conferences in order to elicit feedback from potential users.

2.4.1 Methods

Think-aloud protocol

The Think-aloud Protocol requires participants to voice their experiences, frustrations, and suggestions as they interact with a prototype.⁸⁵ This evaluative method was carried out by an instructional designer with 15 years' experience designing curriculum and lesson plans for children and adult learners. The instructional designer was presented with the solution prototype as well as supporting materials. As each element was reviewed, the instructional designer posed questions and provided recommendations. Feedback was recorded into a worksheet* for analysis.*See "Feedback Grid" on page 88.

Data analysis

Data from this method was coded as responses to the following prompts:

- What works?
- What doesn't work?
- What is unclear?
- Suggestions for improvement, and
- Perceived barriers to implementation.

The data was then synthesized into key findings.

◀ **Think-aloud protocols** allow participants to interact with a prototype and share their experiences.



⁸⁵ Hanington and Martin, *Universal Methods of Design : 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*, 2012.



Key findings

This method yielded three primary findings for iteration of the solution prototype: a conceptual framework for the development of curriculum, a conceptual framework for learner materials, and a conceptual framework for learning assessments.



Curriculum: In each live training session of the training program, the curriculum should explicitly state: what content the instructor is teaching, why the content is being taught, how the content will be taught, what the learner will know at the conclusion of the session, and what the learner will know how to do at the end of the session. This information should be made transparent to learners at each session as well to serve as a checkback for whether the objectives are being met.



Materials: The instructional designer strongly prefers a paper workbook to support learner progress throughout the program. The recommended content includes descriptions of the session activities and prompts for individual reflection that look at the experience holistically.

Proposed prompts for reflection:

- What did I do well?
- What did others do well?
- What did I struggle with?
- What did others struggle with?
- How did instructor help me & others?
- How did other learners help me or others?



Assessment: As the question of how to assess learner progress is an element of this research, this method provided insight into the learning theory behind formative and summative assessments. Formative assessments are low-stakes, occur frequently, and serve to allow instructors and learners to track learner progress throughout an educational engagement. Summative assessments are higher-stakes and take place at the end of a learning process to evaluate a student's learning against a standard or benchmark.⁸⁶ The instructional designer recommended mechanisms* to include both types of assessment in the solution.*See "Solution framework" on page 58.

⁸⁶ Eberly Center, "Formative vs Summative Assessment" (Eberly Center, Carnegie Mellon University), accessed April 19, 2019, <https://www.cmu.edu/teaching/assessment/basics/formative-summative.html>.

Abstract submissions

In order to generate evaluative data from prospective users of the solution, the researcher has submitted proposals to two national design conferences, Ethnographic Praxis in Industry Conference (EPIC) 2019 and the Fourteenth International Conference on Design Principles & Practices. These proposals, whether accepted or not, will provide peer-review and feedback regarding the designed solution. This data will then be utilized in future solution iterations. This data is not available at the time of publishing this research.

EPIC2019^{vii}

EPIC is an international conference promoting the use of ethnographic principles to create business value. The conference seeks to ensure that innovation, strategies, processes and products address business opportunities that are anchored in the lived experiences of people. The audience of the conference is multidisciplinary, attracting participants from many

backgrounds who believe in the value of ethnographic techniques. An abstract has been submitted to the conference's Graduate Colloquium, a day-long forum where graduate students meet with other researchers to discuss their research, present issues of concern to them, and receive feedback.

Fourteenth International Conference on Design Principles & Practices^{viii}

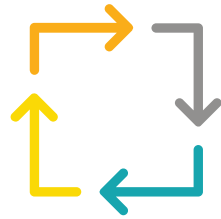
This conference aims to provide an interdisciplinary forum to explore the meaning and purpose of design. Attendees include leaders in the field, as well as emerging scholars, and represent a broad range of disciplines and perspectives. A proposal has been submitted to present a paper based on this research within the conference theme of Design Education.

“Know that **you are right**. Know that **you are good**. Know that you knew how to do this when you were six years old, other stuff just got in the way. **Play.**”

Jill Bernard,
improviser and author of *Jill Bernard's Small Cute Book of Improv*

03 Outcome //

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3.1 Solution

The final outcome of this project was the development of the conceptual framework of a training program with the working title, *Improv for Empathic Facilitation*. This framework answers the reframed research question, “how might we design a training program using applied improvisation principles and techniques to improve empathy in design facilitators?”

3.1.1 Solution framework

Improv for Empathic Facilitation

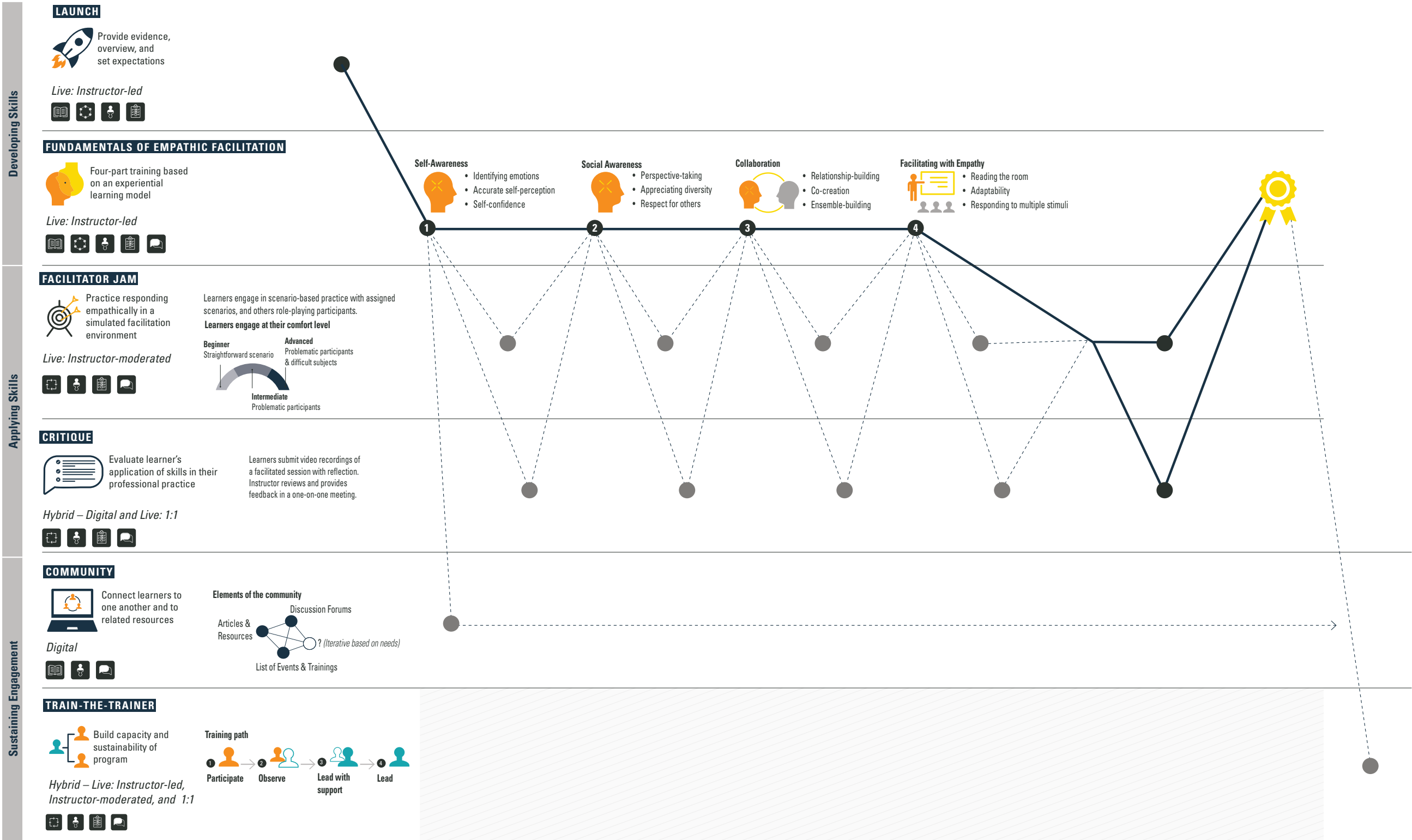
Improv for Empathic Facilitation is a series of training courses and experiential engagements that teach facilitators techniques to improve their empathy. The framework, which is based in Kolb’s experiential learning cycle, is comprised of opportunities to develop skills, apply skills, and sustain engagement.

This program was designed to be utilized by professionals who facilitate participatory design engagements, however, anyone who facilitates engagements where the goal is co-creation, such as meetings, brainstorming sessions, and experiential education, will find value in the tenets of the program

and its delivery because it allows concrete practice in the actions that contribute to successful collaboration.

A learner is considered a graduate of Improv for Empathic Facilitation after completing the Launch, all four components of the Fundamentals of Empathic Facilitation, and submitting to a summative assessment of skills during either a Facilitator Jam or Critique. Learners who wish to deepen their engagement in the program can participate in the online Community at any time and go on to complete the Train-the-Trainer program.

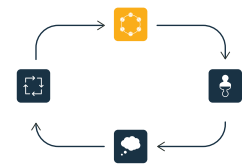
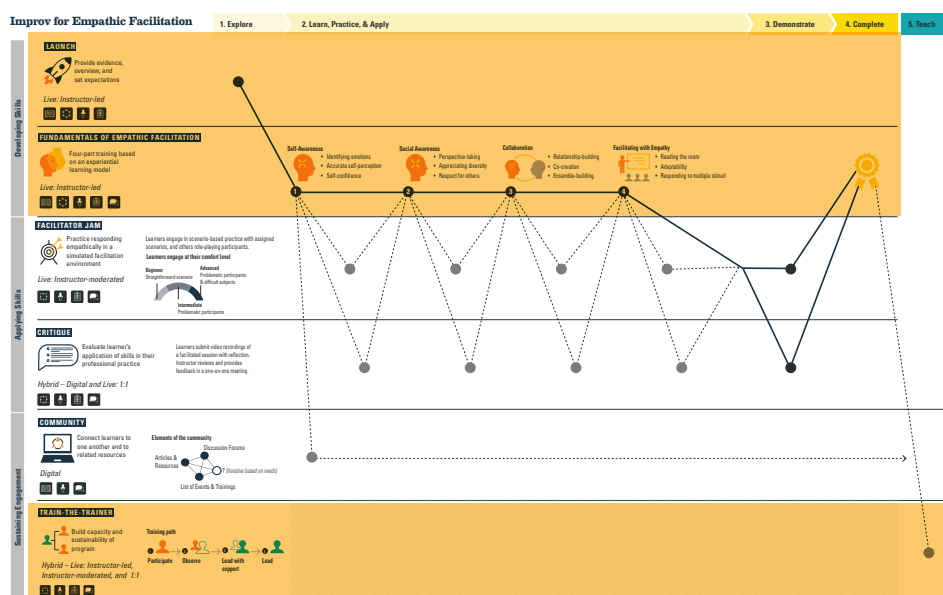
Improv for Empathic Facilitation



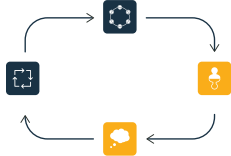
Experiential learning mapping

The framework was designed to correspond to Kolb's experiential learning cycle, wherein learners (1) have a concrete experience followed by (2) observation of and reflection on that experience leading to (3) analysis and the formation of conclusions which are then (4) tested in future situations, resulting in new experiences.⁸⁷ Each stage of Kolb's cycle is mapped onto the framework:

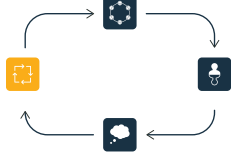
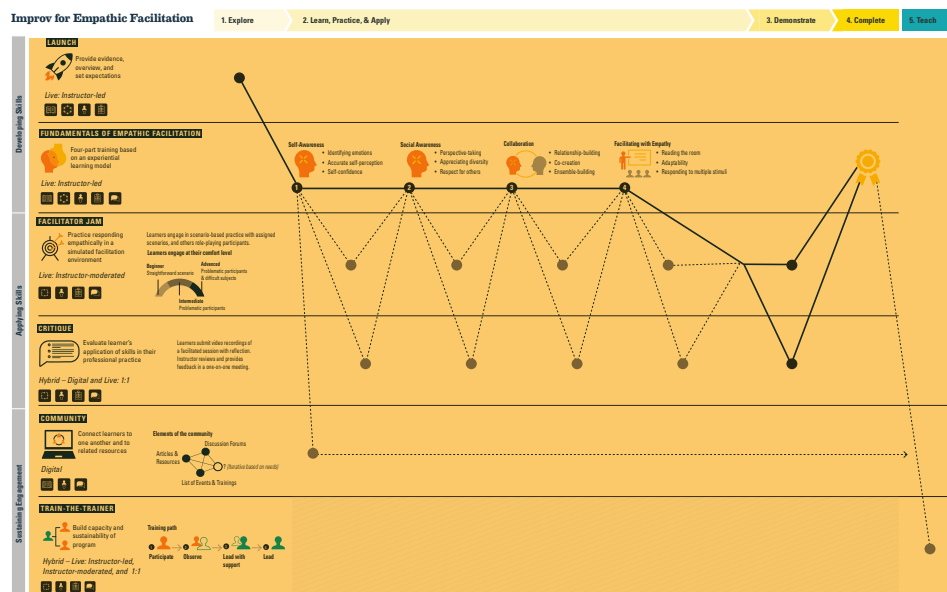
Concrete experience



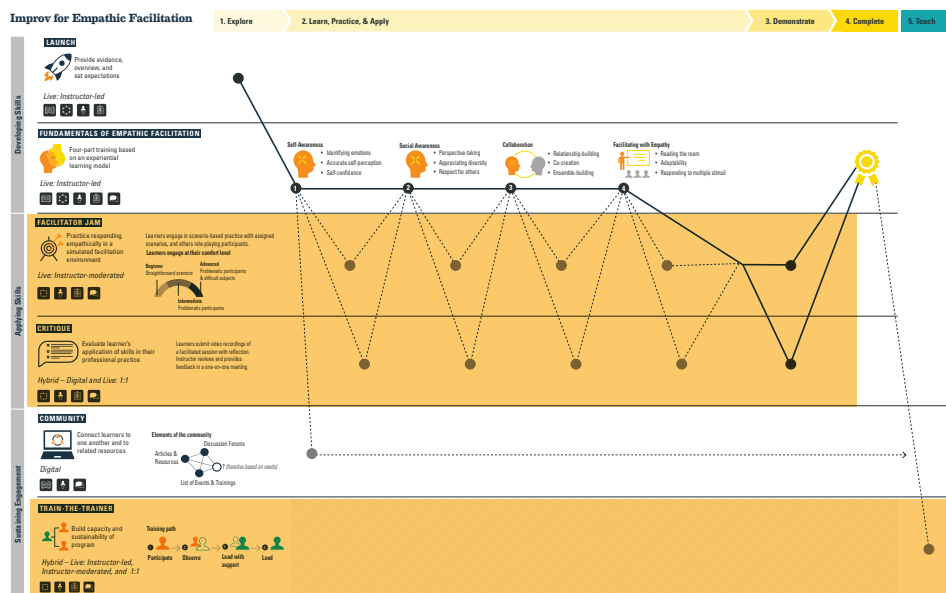
⁸⁷ McLeod, Kolb's Learning Styles and Experiential Learning Cycle | Simply Psychology.



Reflective observation + abstract conceptualization



Active experimentation



3.1.2 Program components

LAUNCH



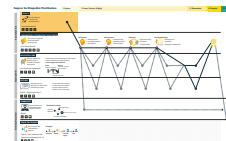
Provide evidence,
overview, and
set expectations

Live: Instructor-led



The Launch is a live, instructor-led education engagement* where learners are introduced to the key concepts of empathic facilitation, clear expectations for instructor and learner engagement are established for the program, and learners participate in activities that explore the four fundamental competencies.*See "Sample Agenda - Launch" on page 89.

The Launch begins with the presentation of evidence connecting applied improvisation to design facilitation and SEL. Then, ground rules of participation are established, followed by concrete applied improvisation exercises. Following each activity, learners will engage in a group reflection. At the conclusion of the Launch, learners are invited to assess themselves on the fundamental competencies in order to provide a baseline for both learner and instructor.



Types of Engagement



Evidence
presentation of
underlying content



Experience
activities that
demonstrate
content



Reflection
developing insights
in response to
experiences



Assessment
evaluate
learning needs
and progress



Feedback
side-coaching and
recommendations



**Active
Experimentation**
applying concepts
in practice



FUNDAMENTALS OF EMPATHIC FACILITATION



Four-part training based on an experiential learning model

Live: Instructor-led



The Fundamentals of Empathic Facilitation are a series of four live, instructor-led education engagements, where learners are scaffolded through the competencies of empathic facilitation. Each session is focused on one competency, and all sessions follow a similar agenda.

Competencies

The competencies developed in the Fundamentals of Empathic Facilitation draw upon CASEL's Social and Emotional Learning (SEL) competencies* as well as actions identified by research participants.*See "Core SEL competencies" on page 22.

Types of Engagement



Evidence
presentation of underlying content



Experience
activities that demonstrate content



Reflection
developing insights in response to experiences



Assessment
evaluate learning needs and progress



Feedback
side-coaching and recommendations



Active Experimentation
applying concepts in practice

mindset.”⁸⁸ One applied improvisation research participant remarked upon the need for self-awareness as a foundation saying,

How do you build actual empathic responses that are meaningful and connected to what's happening? Because even if a student is recognizing that empathy would be appropriate here, if they can't perform empathy it gets lost. And so, for some students you might do solo work where you just work on your emotional expression and range...can you tolerate sitting in your own emotions?

In the context of empathic facilitation, learners will focus on identifying emotions, accurate self-perception, and self-confidence.

SELF-AWARENESS



- Identifying emotions
- Accurate self-perception
- Self-confidence

Self-awareness is the first competency that learners engage with in the program. CASEL describes self-awareness as “the ability to accurately recognize one’s own emotions, thoughts, and values and how they influence behavior. The ability to accurately assess one’s strengths and limitations, with a well-grounded sense of confidence, optimism, and a ‘growth

SOCIAL AWARENESS



- Perspective-taking
- Appreciating diversity
- Respect for others

Social awareness is the second competency, as well as the second element in the model of empathy developed for this research. CASEL defines social awareness as “the ability to take the perspective of and empathize with others, including those from diverse

⁸⁸ Collaborative for Academic, Social and Emotional Learning (CASEL), *Core SEL Competencies*, accessed October 30, 2018, <https://casel.org/core-competencies/>.



backgrounds and cultures” and “the ability to understand social and ethical norms for behavior.”⁸⁹ While CASEL identifies empathy as an element of social awareness, this research posits the opposite: social awareness is a necessary component of empathy. In this competency, learners will work on perspective-taking, appreciating diversity, and respect for others.

COLLABORATION



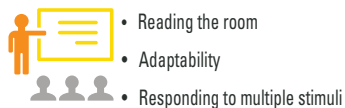
Collaboration in the solution is a hybrid concept, incorporating elements of social and emotional learning’s relationship skills with skills identified by participants as being particularly important in improvisation and design. The identified components of this competency are relationship-building, co-creation, and ensemble-building.

The concept of “ensemble” carries value in both the design and improvisation contexts; it means that the work of the moment (be it designing, learning, performing, etc.) is not about the individual but is part of a larger collective

movement. One applied improvisation interviewee begins sessions by making the group repeat “This is not about me.” Another includes language in his syllabus about what it means for students in his class to participate in the learning ensemble. As discussed in the literature review, this concept is also revealed in the AIGA Designer 2025 report:

“Problems are increasingly situated within larger systems that are characterized by interdependent relationships among elements or activities. Relationships are physical, psychological, social, cultural, technological, and economic in their effects, requiring interdisciplinary expertise.”⁹⁰

FACILITATING WITH EMPATHY



The competency of facilitating with empathy was developed through primary research. It speaks to the empathic actions of facilitators identified by participatory design session participants and includes reading the room, adaptability, and responding to multiple stimuli.

⁸⁹ Collaborative for Academic, Social and Learning (CASEL).

⁹⁰ AIGA, “AIGA Designer 2025: Why Design Education Should Pay Attention To Trends.”

Agenda

A prototype agenda was developed based on both Kolb's experiential learning cycle and insights gathered through primary research. An annotated agenda follows:

Design facilitator participants in this research indicated strong preference for transparency when beginning a session. It shows empathy to alleviate participant anxiety by clearly outlining what can be expected from an engagement.


Design facilitator participants desired clear evidence for why they should engage in specified applied improvisation exercises.

This reflection is the learners' opportunity to participate in the co-creation of criteria for their formative and summative assessments. Not only is co-creation in the spirit of design and improvisation, it honors the existing expertise of the learners and generates buy-in for their learning.

It is at this time that learners conduct their formative assessments. The group share out is the instructor's opportunity to gauge learner progress and respond to questions or concerns

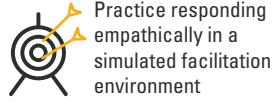
Fundamentals of Empathic Facilitation: Session XX

Agenda

- 1. Introduction to the session
 - a. Review agenda
 - b. Review expectations & ground rules
2. Warm-up Activities 
 - a. Get present in the room
 - b. Connect to group
 - c. Prepare for physicality
- 3. Introduction to session theme
 - a. What we're going to focus on
 - b. Why/how it contributes to empathic facilitation
- 4. Group reflection
 - a. What does it look like when this element is employed in facilitation?
 - b. What does it look like when this element is lacking in facilitation?
5. Activities
 - a. Activity selection and variety will vary for each session
 - b. Includes whole group, small group, and performative activities
6. Reflection
 - a. After each activity (or set of activities), group reflection:
 - i. Observations
 - ii. Connections to practice
- 7. Wrap-up
 - a. Participants take time for individual reflection in their workbooks.
 - b. Group reflection & share out
8. Next steps
 - a. Upcoming sessions

Applied improvisation facilitator participants place value in providing learners with a shared experience at the beginning of an engagement that allows them to transition from their previous context to the work of the engagement. The items in this section come from the practice of applied improvisation facilitators interviewed.

FACILITATOR JAM



Live: Instructor-moderated



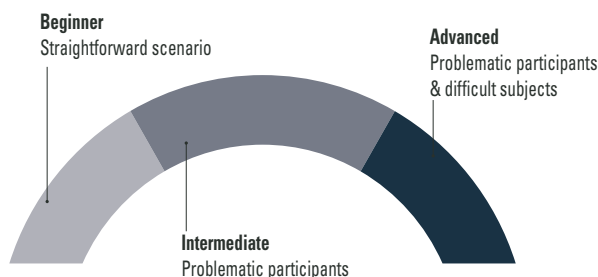
The Facilitator Jam is a live, instructor-moderated engagement where learners can practice facilitation in a simulated context. These engagements are modeled on an improv jam. Similar to an open mic night or jam session for musicians, improv jams are free or low-cost performances wherein anyone can attend and perform.⁹¹

Facilitator Jams are open to any learner in the program to practice their facilitation skills. Learners self-select to facilitate beginner, intermediate, or advanced scenarios. When not facilitating a scenario, learners act as simulated session participants. The instructor-moderator acts as host and assigns each learner a time-bound scenario, including session objectives and any pertinent background information. Once the learner has reviewed their scenario, they are free to facilitate it as they see fit. The moderator may engage the facilitator in

side-coaching to call attention to actions and prompt changes in the moment. Following each scenario, the moderator leads facilitator and participants to reflect on the experience.

For learners who select intermediate or advanced scenarios, the moderator may assign participants roles to challenge the facilitators. Roles may include: an attention-grabbing personality, someone who feels compelled to disengage from the session, a constant talker, someone uncomfortable speaking up, a blocker, a high-status participant, etc. Scenarios may also take on elements of problematic situations, such as an emerging public relations crisis, or a medical emergency

The Facilitator Jam is also a venue for a learner who has completed the Fundamentals of Empathic Facilitation to complete their summative assessment.



Types of Engagement

-  **Evidence**
presentation of underlying content
-  **Experience**
activities that demonstrate content
-  **Reflection**
developing insights in response to experiences
-  **Assessment**
evaluate learning needs and progress
-  **Feedback**
side-coaching and recommendations
-  **Active Experimentation**
applying concepts in practice

⁹¹ "Improv Jam," IRC Improv Wiki, accessed April 19, 2019, https://wiki.improvresourcecenter.com/index.php?title=Improv_jam.



CRITIQUE



Evaluate learner's application of skills in their professional practice

Hybrid – Digital and Live: 1:1



Critiques present an opportunity to evaluate a learner's facilitation in practice. In order to engage in a critique, a learner must acquire permission from their client and/or participants to create a video recording of a facilitated session. The learner then submits the video along with a self-reflection to a program instructor. The instructor reviews the

recording and evaluates learner on the competencies of empathic facilitation. Instructor and learner meet to discuss the experience, reflect, and co-create plans for improvement as needed.

The Critique is also a venue for a learner who has completed the Fundamentals to complete their summative assessment.



COMMUNITY



Connect learners to one another and to related resources

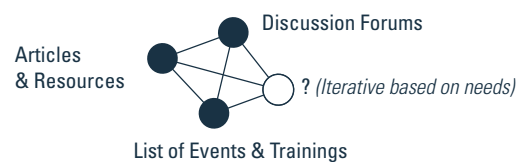
Digital



The Community is a private website where learners can connect to one another and to relevant resources. It is a repository for information about the program, articles and discussions on relevant topics, and a place for learners to discuss strategies, best practices,

and questions with other learners and instructors. Access to the community is granted upon enrollment in the Fundamentals and learner engagement is self-directed through and past completion of the program.

Elements of the community



TRAIN-THE-TRAINER



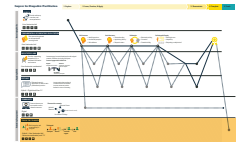
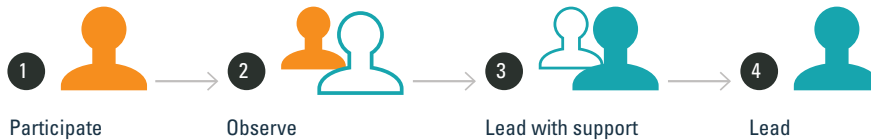
Hybrid – Live: Instructor-led, Instructor-moderated, and 1:1



The Train-the-trainer opportunity is designed for learners who wish to become an instructor in the program. It is also intended to build capacity and sustainability of the program as a whole. In order to participate, a learner must complete the Fundamentals for Empathic Facilitation and summative assessment and notify the program director that they wish to become a trainee. The trainee first shadows an instructor through a cycle of the Fundamentals program and

at least three Facilitator Jams. During this time of shadowing, the trainee is expected to reflect upon the role of the instructor, and the trainee and their instructor will meet regularly to discuss the experience and the trainee's progress. After shadowing is complete, the trainee will begin leading sessions with instructor support. After a flexible period of supported instructing, the trainee will become a program instructor.

Training path



Types of Engagement

-  **Evidence**
presentation of underlying content
-  **Experience**
activities that demonstrate content
-  **Reflection**
developing insights in response to experiences
-  **Assessment**
evaluate learning needs and progress
-  **Feedback**
side-coaching and recommendations
-  **Active Experimentation**
applying concepts in practice

3.1.3 Further solution development

As the solution emerged, the breadth and depth of the opportunity space was revealed to be considerable, resulting in need for further development.

Curriculum: Since the solution is conceptual, more research is required to develop the practicalities of each of the program components. Initially, a curriculum would need to be developed that encompasses the what/why/how of teaching and learning illustrated in the think-aloud protocol. The researcher has proposed an ideation workshop at the 2019 Applied Improvisation Network (AIN) conference^{ix} in order to engage applied improvisation practitioners in co-creating specific activities and approaches relating to each of the four fundamental competencies.

Value of individual expertise: Another area that would benefit from further research within curriculum development is the value of individual expertise and experience prior to entering program. Do expectations of facilitator actions differ if the facilitator is a novice versus an expert? How might expertise in facilitation be measured? One opportunity might be found in mapping actions and skills to the Dreyfus model of skill acquisition^x, a model of how learners acquire skills through formal instruction and practicing. This component of research would benefit from the involvement of both facilitators and instructional designers, as it requires evaluating existing learning theory as well as lived experience.

Baseline assessment: While this research poses a model for the assessment of empathic facilitation, more research is needed in order to generate and validate the initial criteria used for baseline assessment. This could be accomplished through engagement with experienced facilitators as well as through evaluation of other assessments of empathy, such as those mentioned in the literature review.

Preparation of new instructors: Another area of assessment requiring further research is the preparation of new instructors through the Train-the-trainer program. How might this program ensure the fidelity of new instructors? By which methods might instructor-readiness be assessed? As a baseline, this could be done through the evaluation of analogous programs, such as yoga teacher training and student teaching.

Supplemental materials: Following the development of curricular activities, investigation into the development of supplemental materials such as a workbook and content for the online Community that related to practice activities is needed. While the framework for a workbook was established in this research, potential users should be engaged to share their needs and desires around how supplemental materials will look and function within the program.

Facilitator Jam: While the live trainings are grounded in existing learning models, the Facilitator Jam is, in the researcher's understanding, a new concept in facilitator training. The theoretical construct will need to be prototyped and tested to assess whether it meets the objectives of providing effective simulated practice for facilitators. Elements such as the practice scenarios, the role of side-coaching, and the approach to reflection will need to be devised and tested with users.

Evaluation: Finally, this solution will require evaluative methods at each stage of development as further research is conducted and the solution is refined through iteration. Once complete, the solution will also need to be evaluated on the outcomes of learners in the program to see if it meets the stated objective of improving empathy in facilitators utilizing the assessment mechanism developed through the program.



4.7 Discussion

The framework designed through this research offers an opportunity address an under-researched and under-supported need in design facilitation: the cultivation and demonstration of empathy. Through the combination of experiential learning and applied improvisation techniques, design facilitators can take a proven, methodical approach to improving the competencies that positively impact collaboration and co-creation. While additional research will have to be conducted to develop criteria to define and measure effective facilitation, it is the researcher's opinion that improved empathy would lead to higher quality participant engagement and overall better design outcomes.

3.1.4 Answering sub-questions

Through the stages of Analysis, Synthesis, and Evaluation, this research was able to provide partial answers to the research sub-questions.

1. What are key applied improvisation principles and techniques for the development of empathy?

Rather than identifying the applied improvisation principles and techniques that support the development of empathy, the data required a step back to define empathy in this context. That definition (self-awareness + other awareness + belief in the value of diversity = empathy) led to the identification of the four competencies (self-awareness, social awareness, collaboration, and facilitating with empathy) of empathic facilitation. Within each of the competencies there will be

further research required to identify the applied improvisation techniques that best contribute to the necessary skills.

As described in the introduction, applied improvisation is most effective when the techniques and principles are coupled with reflection upon the activities and their potential applications in the learner's context. In this way, designing the framework around an experiential learning cycle ensures that this key element of applied improvisation is intrinsic to the learner's experience.

2. Where are the opportunities to include applied improvisation in design facilitation training?

During Analysis, the key insights from the interviews and analogous model method informed the reframing of the research question and solution space to create a program that is separate from existing design facilitation training. Instead of including applied improvisation techniques and principles in existing, the solution created a separate space for applied improvisation activities that

can be accessed by interested designers. By doing so, the training can offer a depth of engagement that would not be afforded by inserting activities into trainings that are already robust with content. Additionally, it bypasses the perceived disinterest on the part of some design facilitators and their trainers; the program is available for those who wish to opt-in to deepen their practice.

3. How might we measure a design facilitator's improvement in empathy?

The assessment of empathy, as discussed in the literature review, is a gap in the body of knowledge in this context. This research proposes a model of co-creating the criteria to assess a facilitator's baseline and improvement in empathy through reflection, discussion, and observation. In this program,

learners participate in formative assessments utilizing the co-created criteria throughout each engagement. At the conclusion of their learning, a summative assessment is administered by an instructor utilizing a synthesis of that criteria.

4. How might we help educators include applied improvisation principles and techniques in their offerings?

In reframing the solution space to a standalone program, the need to assist educators in integrating applied improvisation into their offerings is eliminated. However, through the solution's Train-the-trainer component,

educators who would like to include these principles and techniques have a pathway to not only learn and employ the techniques in their own practice, but also how to teach others to employ them.

3.1.5 Opportunities for future research

In addition to the further research required for this specific solution, the research points to other questions to address in future research. As stated in the literature review, there is no clear definition of the attitudes and aptitudes of a design facilitator. Investigation into this area and generation of a framework would also lead to future opportunities to explore how applied improvisation might support other attributes and processes in designers, such as their role in building resilient organizations, another of the trends identified in the AIGA Designer 2025 report.

While this research designed a solution for practicing professionals, anecdotal evidence suggests that higher education faculty are seeking to develop empathy in their students as they are learning to

lead participatory design engagements. If this intervention is found to be effective with professionals, there is opportunity to investigate how to bring these principles and techniques into university classrooms.

Finally, as alluded to in the introduction to this section, it is difficult to measure the success of this solution without an understanding of what defines effective facilitation. This was discussed in the interviews for this research but is a much larger problem space than could be addressed. As design facilitation becomes more prevalent and visible, designers will need to be able to communicate the value that facilitation brings to a project's outcomes. These conversations will be aided by a better understanding of what makes design facilitation effective.

3.1.6 Conclusion

While this research exclusively examined the role of design facilitators, no evidence was revealed to indicate that, in the specific context of empathy, design facilitation differs from other kinds of facilitation. When the intended outcome of a facilitated engagement is co-created by the participants, empathic actions carry the same importance - whether the session is tasked with designing a service or updating a business plan. In that way, this solution could have much farther-reaching implications and benefits for other industries and other users.

This research has created a space for a new dimension to the relationship between design and improvisation. By presenting its potential impact on interpersonal skills rather than cognitive skills, this research hopes to open the door to more examination of how the fields of design and improvisation might positively impact each other. In an increasingly connected world, designers might benefit from more tools that support social and emotional learning, their own and that of their participants.

“I have no idea how
this is going to
work, but I know
that it will because
**we’re going to
do it together.”**

Marc Evan Jackson,
improviser and founder of The Detroit Creativity Project

04 Appendix //

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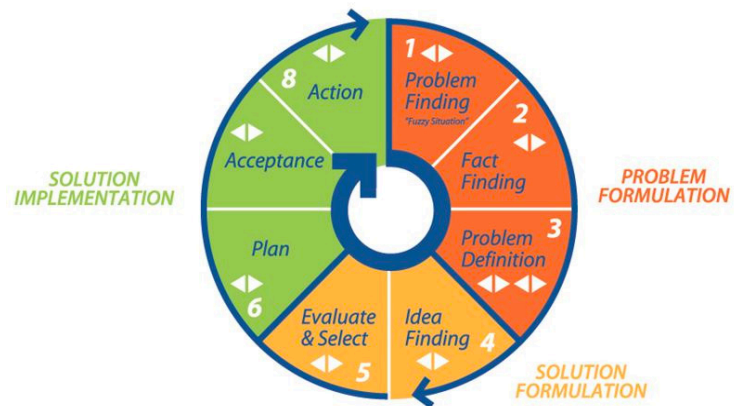
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4.2 Design Process Models

The Simplex Process model ▶

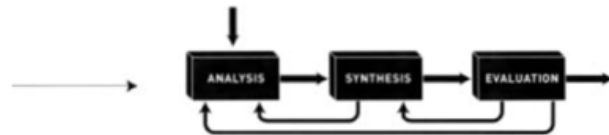
developed by Min Basadur, an acclaimed researcher and teacher in the field of applied creativity.

www.basadur.com



The conventional analysis synthesis evaluation model of designing ▶

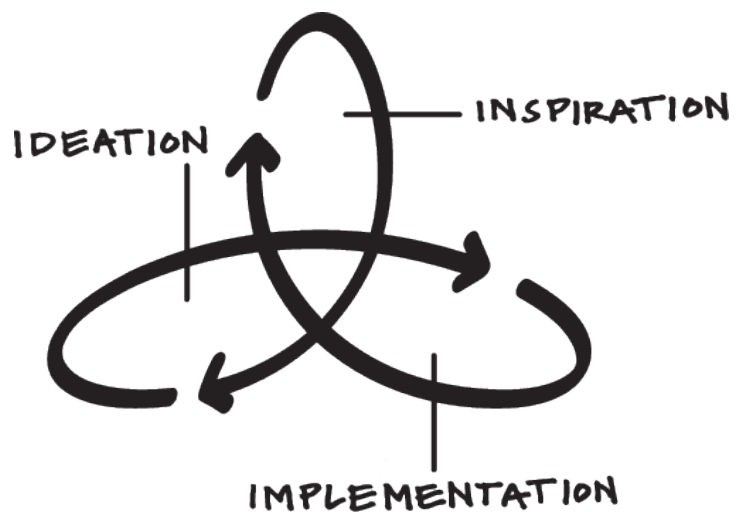
as described by Bryan Lawson and Kees Dorst in their book *Design Expertise*



The 3 core activities of design thinking diagram ▶

developed by IDEO, a global firm specializing in human-centered design.

designthinking.ideo.com



4.3 Questions - Interviews

The applied improvisation facilitator participants were asked:

- How long have you been leading Applied Improvisation sessions?
- How did you begin facilitating Applied Improvisation?
- What populations/organizations do you most frequently work with?
- What outcomes are your participants/clients hoping to achieve with Applied Improvisation training?
- In your practice, have you used applied improvisation to engage participants in cultivating empathy? If so, how did it go? Do you feel it was successful? Why or why not?
- If you were developing a session to develop empathy, what activities or games would you include? Why?
- After a facilitated session, what does success look like to you?

The design facilitator participant was asked

- Can you tell me about what you do / your training program?
- How long have you been offering design facilitation training?
- Why did you begin offering this kind of training?
- How did you develop your curriculum/agenda?
- Who are your participants?
- As a practitioner, how do you know a facilitated session has been successful?
- As a trainer, how do you make your thinking process visible so others might learn?
- Do you feel empathy is an important skill for design facilitators? Why or why not?
- Does your training currently include any activities or components focusing on empathy?
- If this research produces evidence of activities that positively impact these attitudes, would you consider including them in your training? Why or why not?

4.4 Organizations - Analogous Models

AIGA is the oldest and largest professional membership organization for design. AIGA represents over 25,000 members worldwide. They advocate for the value of design & designers, define global standards and practices, and provide professional development opportunities.

Design for Good is a platform to build and sustain the implementation of design thinking for social change.

aiga.org/design-for-good

Studio Science is a design & innovation consultancy located in Indianapolis, IN.

studioscience.com

NextDesign Leadership Institute is part of the Next Design Leadership Network, an experimental community sensemaking initiative founded in New York City by Humantific co-founders VanPatter & Elizabeth Pastor.

nextd.org

The Innovators' Guidebook was developed with the **Center for Care Innovations** Safety Net Innovations program and **Gravity Tank, Inc.**

The Center for Care Innovations seeks to strengthen the health and health care of underserved communities through education, innovation, and collaboration. They are located in Oakland, CA.

Gravity Tank, Inc. offered design and innovation consultancy and integrated marketing solutions. Gravity Tank, Inc. was acquired by Salesforce.com and now operated under the Ignite program.

www.careinnovations.org

salesforce.com/ignite

Collabo Creative is a service design consultancy located in Indianapolis, IN

collabocreative.com

4.5 Tools

Reflection Worksheet

Imagine you have been asked to facilitate a session for a client. It is a session that's within your comfort zone, with outcomes similar to others you have run in the past. How do you approach creating and facilitating this session?

1. Before the Session
What do you do to prepare for the session?

→ STRATEGY
→ WHO → Consider my audience
→ WHAT → my goals / clients desired outcomes, what I need to learn
→ HOW → Techniques, methods, approach, environment, motivators or distractors that may occur that I need to account for

WHO + WHAT / HOW = Scaffold

Consider:
• How do you scaffold your activities?
• Do you request any pre-work? → YES → be to face meeting to gain valuable contact
• How do you set objectives?
• Input for clients

2. During the Session
How do you lead the session?
How do you handle problematic situations that may arise?

Visual Management

→ refers to signpost and labels
→ offer options
→ scaffold up + pattern things
→ confusion

— Visible
— Agenda / Process
— Signs to help orientate / provide landmarks
— Good Rules
— Re-distribute Control / Consensus
— Ask questions
— Give opportunity to sign in
— "Can we live...?"

— Discreet
— Ask questions
— Re-distribute Control / Consensus
— Ask questions
— Give opportunity to sign in
— "Can we live...?"

① PLAN
② DO
③ EVALUATE

Consider:
• How do you open the session? → (to CL long)
• Do you set any ground rules? If so, what are they and how do you present them? → YES → to create shared agreements
• How do you transition between activities?
• How do you wrap up a session? → explain what we did today why
• How do you respond to:
• participants who are openly skeptical of the session's approaches?
• participants who are very talkative or dominate the session? → offer to take notes
• participants who are quiet and do not actively participate
• side conversations that distract from the session? → get to the point
• to groups or individuals that want to continue discussing it is time for an activity?

3. After the Session
How do you bring closure to the session / project?

→ Reflection → how did things go?
→ Feedback → questions
→ Debrief
→ Plans

THINGS THAT NEED TO CHANGE

Consider:
• How do you engage with your client or participants after a session is over?
• How do you evaluate the success of a session?
• Complaints

What do facilitators do?
Imagine you have been asked to facilitate a session for a client. It is a session that's within your comfort zone, with outcomes similar to others you have run in the past. How do you approach creating and facilitating this session?

1. Before the Session
What do you do to prepare for the session?

① Initial conversation to establish broad goals.
② Deepen questions (ask to probe into existing strengths, challenges, obstacles, outcomes).
③ If need be, obtain extremely detailed information at a more granular level.
④ Review existing exercises that are known to cover the stated skills.
⑤ Research new exercises/activities to fill in any gaps.
⑥ Create any needed exercises/activities to fit other specialized needs.

Consider:
• How do you scaffold your activities?

2. During the Session
How do you lead the session?
How do you handle problematic situations that may arise?

① We always start with an overview of improv basics: Be present, accept, collaborate, commit, have enthusiasms.
② We next run a series of warm-up activities to allow participants to get comfortable being uncomfortable, to allow them to start laughing at failure, and to get them to drop their guard with their peers.
③ After an exercise series (exercises) I lead them in a debrief of: what worked? What was challenging? What skills did they have to utilize? How do those skills translate to their work?
④ For those causing a distraction, I normally try to allow them to have their say, why are they resisting? Why are they taking focus, etc. I try to assure/reason with them as needed. Ultimately, I normally pull back to the 5 improv pillars and comment about they are affecting those principles.

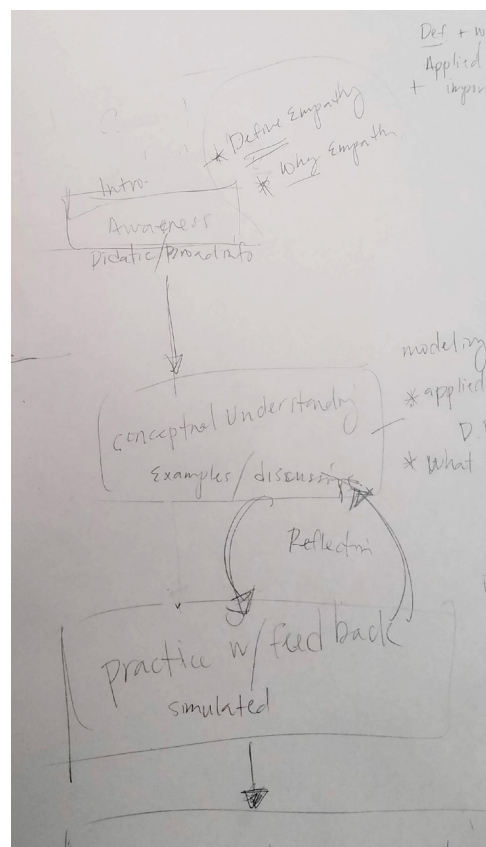
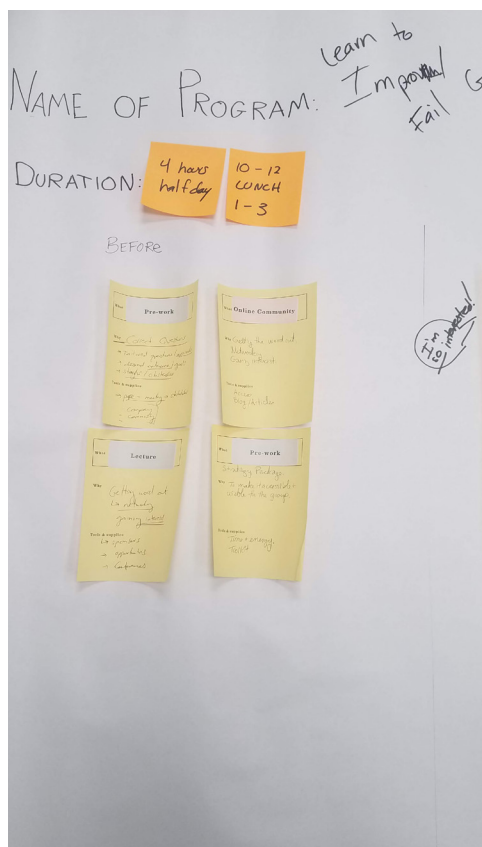
Consider:
• How do you open the session?
• How do you respond to:
• participants who are openly skeptical of the session's approaches?

3. After the Session
How do you bring closure to the session / project?

① Time allowing, I allow participants to identify at least one concept that they can take with them and utilize.
② There is typically a follow-up questionnaire as well.

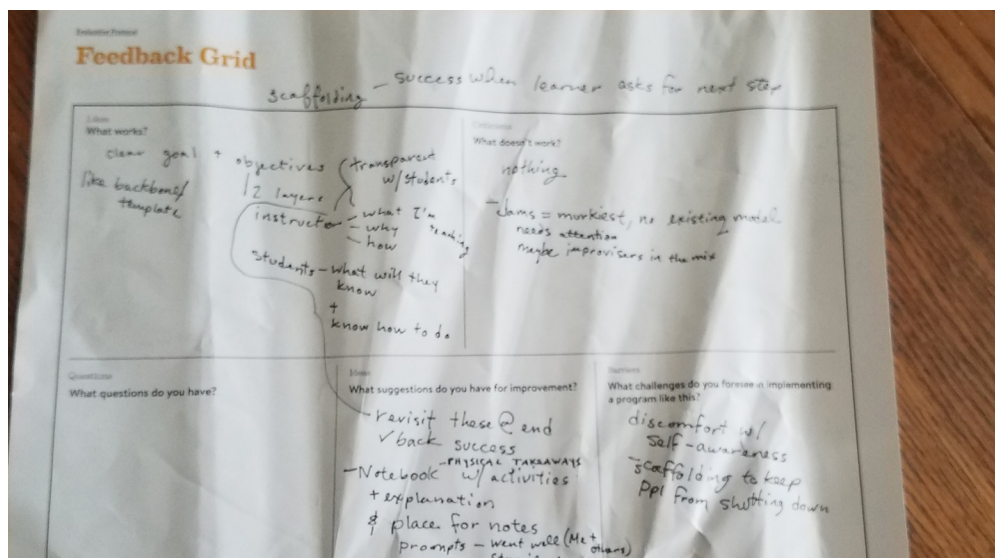
Consider:
• How do you engage with your client or participants after a session is over?

Concept Prototype Tool ►



Note: these participants were provided with the same tool, but opted to build their prototype differently

Feedback Grid ►



4.6 Sample Agenda - Launch

<i>Activity</i>	<i>Interaction</i>
Introduction to the program <ul style="list-style-type: none"> • Who I am (facilitator) • Why we are here • Review agenda 	Presentation
Introduction to participants <ul style="list-style-type: none"> • Around circle: Name? Why are you here? 	Discussion
Why applied improvisation? <ul style="list-style-type: none"> • What is it? • What can it offer to design facilitators? • Connections between applied improv and participatory design 	Presentation
Expectations <ul style="list-style-type: none"> • Experiential education model • Not a performance - no pressure to be funny or clever • Discomfort is intentional - that's how we learn • Self-care - push yourself, but don't hurt yourself • Support each other - this is a BRAVE SPACE 	Presentation
Ground Rules (PEACH) <ul style="list-style-type: none"> • Pay Attention • Ensemble First • Accept • Commitment • Have Fun 	Presentation
Warm-up Activities <ul style="list-style-type: none"> • Break ice • Learn names • Get present in the room • Connect to group 	Activity
Reflection <ul style="list-style-type: none"> • Assess comfort • Observations • Connections to practice 	Discussion

<p>Self-Awareness Activity Example: Whoosh Bang Pow⁹²</p> <p>Phase 1: First, have the group stand in the circle. Then, demonstrate “passing a whoosh” by facing the person to your right or left, saying “whoosh” and moving your hands in a way that indicates energy movement/passing. Ask them to pass it to their neighbor. Groups generally organically pass whoosh in a circle with fairly little issue. Allow “whoosh” to make it all the way around the circle a few times.</p> <p>Phase 2: Once the group seems comfortable with passing whoosh, introduce “bang.” Ask someone next to you to pass a “whoosh” to you. When they do this, cross your arms in an “x” across your chest, and state “bang.” Explain to the group that this means that the “whoosh” changes directions, and that the person who tried to pass the whoosh should whoosh it back to the direction it came from. Then, ask the person next to you to demonstrate bang. Pass them a whoosh, have them bang you, and then re-state “so, now the whoosh changes direction, and I will face the other way and pass whoosh that direction.”</p> <p>Phase 3: Inevitably, the “whoosh” will get stuck, as some learners will “bang” on either side of another student a bit excessively. Use this as a natural point to introduce “pow.” Instruct learners that they can also choose to pass the energy to someone else by making eye contact with them across the circle, clapping their hands together pointing at this person, and saying “pow.” Instruct the person receiving the “pow” that they can then choose to “whoosh” either direction, or “pow” the energy to someone else.</p>	Activity
<p>Reflection</p> <ul style="list-style-type: none"> • Assess comfort • Observations with regard to <ul style="list-style-type: none"> • Identifying emotions • Accurate self-perception • Recognizing strengths • Self-confidence • Self-efficacy • Connections to practice 	Discussion
<p>Social Awareness Activity Example: Mind Meld⁹³</p> <p>Mind Meld is played in pairs, and, at heart, it is a free association game. The goal is for two learners to collaboratively free associate together until they reach the same word.</p> <p>It begins by one person saying “one,” the second person saying “two,” and then both learners saying “three” together. They then say anything at all - a person, place, idea, concept, phrase, anything. After processing these two things, we repeat the one, two, three and try to use the two previously stated things to arrive at a third, common one. You free associate together, attempting to reach the same word for the next beat of the exercise.</p>	Activity

⁹² Lacy Alana, LCSW, “Connect Improv Curriculum,” 2015.

⁹³ “Mind Meld,” IRC Improv Wiki, accessed April 20, 2019, https://wiki.improvresourcecenter.com/index.php?title=Mind_Meld.

Reflection <ul style="list-style-type: none"> • Assess comfort • Observations with regard to <ul style="list-style-type: none"> • Perspective-taking • Appreciating diversity • Respect for others • Connections to practice 	Discussion
Collaboration Activity Example: I am a Tree ⁹⁴ The learners stand on the stage/around the room. Player A goes to the middle, strikes a pose and says who or what they represent. For example, he lifts his arms over his head and says, “I am a tree.” A second player arrives, adds to the picture, and also says who or what he is. A third player enters the scene and completes the suggestions from A and B. Now that the scene is finished, player A leaves the stage taking one of the other learners with them. The other player stays on the stage and repeats their sentence (without changing their pose) As a result he offers a suggestion for a new scene.	Activity
Reflection <ul style="list-style-type: none"> • Assess comfort • Observations with regard to <ul style="list-style-type: none"> • Relationship-building • Co-creation • Ensemble-building • Connections to practice 	Discussion
Empathic Facilitation Activity Example: Swedish Story ⁹⁵ Ask the learners to get into groups of 3. Each person in the group chooses a role: 1. storyteller, 2. audience for the story, and 3. word suggester. The storyteller faces the audience for the story. The person suggesting words stands to the side of the storyteller. The storyteller begins to tell a story and from time to time the suggester will say a word out loud. The storytelling must incorporate the word or phrase as soon as possible into the story.	Activity

⁹⁴ “I Am a Tree,” Improv Wiki, accessed April 20, 2019, https://improvwiki.com/en/wiki/improv/i_am_a_tree.

⁹⁵ “Swedish Storytelling Improv Activity,” Improv Games, September 18, 2018, <http://www.improvgames.com/swedish-storytelling-improv-activity/>.

Reflection <ul style="list-style-type: none"> • Assess comfort • Observations with regard to <ul style="list-style-type: none"> • Adaptability • Perceiving multiple stimuli • Responding to surprises • Quick thinking • Connections to practice 	Discussion
Self-Assessment Participants reflect and assess themselves on each of the four fundamentals: <ul style="list-style-type: none"> • Self-awareness • Social awareness • Collaboration • Facilitating with empathy 	Individual Activity
Share out Participants reflect on the workshop and their assessments	Group discussion
Wrap-up Next steps: Fundamentals THANK YOU Invitation to provide feedback	Presentation

4.8 Notes

- i In his book, *Designerly Ways of Knowing* (Basel : Birkhäuser ; London : Springer [distributor], 2007., 2007), Nigel Cross describes co-evolution as when a designer alternates between problem and solution constructing partial understanding of each throughout the conceptual stages of the design process. Cross is an academic whose research helped establish design as an distinct discipline.
- ii J.P. Guilford was an American psychologist who studied creativity and intelligence. In their article, "Guilford's Structure of Intellect Model and Model of Creativity: Contributions and Limitations," R. J. Sternberg and E. L. Grigorenko call Guilford "the father of modern creativity research" (Creativity Research Journal 13, no. 3–4 (October 1, 2001): 309). They go on to concluded that while his theories have been criticized, he sparked an interest in the study of intelligence and creativity, which has arguably benefited the field of design as well.
- iii Collabo Creative is a strategy and service design consultancy based in Indianapolis, IN that also fosters workshops that immerse participants from a variety of disciplines in innovative activities. Learn more at collabocreative.com.
- iv Jon Kolko is an educator and design strategist. His Austin Center for Design teaches entrepreneurship and interaction design. He is also the author of six books on design, disruption, and social engagement. Learn more at jonkolko.com
- v In 1984, David Kolb published the book *Experiential Learning: experience as the source of learning and development* (Englewood Cliffs, Prentice Hall, 1984). He is currently Professor of Organizational Behavior at the Weatherhead School of Management, Case Western Reserve University and chairman of Experience Based Learning Systems, LLC. Learn more at learningfromexperience.com.
- vi Saul McLeod is a researcher and psychology tutor at the University of Manchester. His website, Simply Psychology, aims to provide accessible psychology articles free to students of all backgrounds. Learn more at simplypsychology.org.
- vii Learn more at 2019.epicpeople.org.
- viii Learn more at designprinciplesandpractices.com/2020-conference.
- ix The Applied Improvisation Network (AIN) was founded in 2002 to support the practice and practitioners of applied improvisation worldwide. The 2019 AIN Conference will examine the theme "Communicating Beyond Borders and Barriers: Applications of Improvisation In Society." Learn more at appliedimprovisation.network.

x Stuart and Hubert Dreyfus created the Dreyfus model of skill acquisition which proposes that a learner passes through five distinct stages of four binary qualities: (Dreyfus, Hubert L., Stuart E Dreyfus, and Tom Athanasiou. *Mind Over Machine: The Power of Human Intuition and Expertise In the Era of the Computer*. New York: Free Press, 1986.)

Skill Level / Mental Function	Novice	Advanced Beginner	Competence	Proficient	Expert
Recollection	Non-Situational	Situational	Situational	Situational	Situational
Recognition	Decomposed	Decomposed	Holistic	Holistic	Holistic
Decision	Analytical	Analytical	Analytical	Intuitive	Intuitive
Awareness	Monitoring	Monitoring	Monitoring	Monitoring	Absorbed