

Design Thinking Protocol

Format: Design thinking sessions will be held in Spanish and English with simultaneous interpretation based on participant preference listed during the screening process)

Participants: The design thinking sessions will consist of parents/caregivers of autistic individuals, autistic adults, teachers, and OT practitioners)

Supplies:

- 2-4 large flip paper pads on stands
- markers
- sticky notes in multiple colors
- Preprinted rubrics for the empathize and define stages
- Sticky dots
- Print individual handouts x 15
- Print group labels for whiteboards x 4

Welcome

- **Team members and participants:**
 - List and introduction of team members
 - Explain the role of the fidelity rater a “note taker”
 - Location logistics (bathroom, snacks, if childcare is provided, room and staff, break areas)
 - Break statement: “We will be providing breaks during this session. However, if you need a break, please feel free to step out of the room, ask us to take a pause, or reach out to one of our team members for assistance. It is ok to do that at any time.”
 - Information on the recording of the sessions
 - Remind everyone they consented to be audio recorded
 - Explain the timing of the recording
 - Answer any questions about recording
 - Inform everyone that all the information collected today will be de-identified and used only internally among the study team to allow for team review of the information discussed.
 - Inform them that the group activity will last about 2 ½ hours.

Setting Goals, expectations, and rules

- Goals of the session
 - To understand barriers and facilitators to access to therapy services for autistic children and their families who are part of the Hispanic and Latino community.
 - To reimagine therapy services for autistic children, part of the Hispanic and Latino community.
- Expectations:
 - Active participation

- Share!
- Have fun!
- Share timeline
- Reiterate that a break at any time is ok!!
- **Rules:**
 - Respectful group participation
 - There are no right or wrong answers, just different points of view; we want you to feel comfortable sharing your thoughts, experiences, and ideas, we are not promoting a particular way of thinking.
 - Respectful listening
 - Confidentiality – In an effort to protect confidentiality, we ask that you do not share what others have discussed with people outside of this group.
 - Please silence your phones
- **Groups**
 - Participants will be divided into two groups of 4-6
 - Group creation should strive for diversity of stakeholders
 - Special consideration should be given to the special needs of the participants, including individuals with autism. In cases where the individual with autism has a lower ability to interact socially or communicate, the session might be better facilitated by pairing this individual with a parent or guardian who can assist through the different steps.
 - A brief conversation with families of autistic individuals before separating into groups will occur as needed to learn about any needs to implement once the family sits in separate groups.

Icebreaker Exercise – 5 minutes

- Icebreakers are meant to help individuals break out of their shells and feel comfortable interacting. There are many options here. Since we will be including autistic individuals, we should try to make sure the icebreaker does not make anyone feel overstimulated or uncomfortable.
- Name Game Icebreaker (source: Vena K. The Five Best Ice Breakers to Use for Autistic Students [Internet]. [cited 2024 Feb 6]. Available from: <https://blog.stageslearning.com/blog/the-five-best-ice-breakers-to-use-for-students-with-autism>)
 - Break up into two groups of 4-6 people
 - Each group is given a ball
 - The leader starts by saying My Name is ... and then rolls it to another person
 - The person who receives the ball says “Hello [name]” back to the person who just rolled the ball. Then that person says, “My name is ...” and rolls to another person.
 - This continues until all the people have introduced themselves. The last person then rolls the ball back to the first person, and the process starts again, but this time, each person should say “Hello [name]” to the person they are rolling the ball to.

Stage 1: Empathize (45 minutes)

- Describe the concept of empathy in the design thinking process
- Small groups or pairs interview a stakeholder about experiences and ask about problems and pain points)
- Explain the following concepts:
 - *Therapy Services are treatments provided by licensed healthcare professionals to increase, maintain, or advance the functionality of individuals in particular areas.*
 - *For example, physical therapy is used to improve movement, and balance and decrease pain, Speech therapy is used to improve different types of communication, and Occupational therapy is used to develop new skills needed for daily life routines such as showering, dressing, attending school or work, and creating adaptations to manage various symptoms and improve participation.*
 - *A specific type of occupational therapy is Ayres Sensory Integration. This type of therapy focuses on the sensory and motor issues that may impact a child's participation in everyday activities such as figuring out how to put on a coat or a pair of socks or play with a toy.*
 - *Ayres Sensory Integration is an active, playful therapy and is often done in a large room with mats, large therapy balls, and other equipment that allows for active movement and exploration of one's body (e.g., carpeted barrels, scooter boards, or different kinds of swings).*
- The facilitator clarifies and rewords definitions and concepts as needed to facilitate understanding.
- The interview stage aims to gain insights into the barriers to therapy services. The group should select someone to be the interviewee, and the others can assist in performing the interview. It would be ideal to have people pair off to interview each other. Ideally, at least two individuals are interviewed within each group, with at least one being a family member of an individual with autism.
- The interviewer should take notes. As insights are gained or heard, they can be written down on Post-it notes and placed on the flip chart.
 - See slides for tips on interviewing.
- Share with group
 - Explain the process of unpacking the interview
 - Facilitate sharing of the interview
 - Each group briefly shares some of the things they learned from their interviews with everyone.
 - As each person shares what they learned, additional insights can be written on sticky notes and placed on flip charts

Stage 2: Define (15 minutes)

- Describe the concept of “define” in the design thinking process
- After the empathize stage, each flip chart should have scattered post-it notes relating observations and details from the interviews. The group should decide to focus on one

of the interviews they felt offered the most insights, especially regarding understanding barriers to therapy. This can be done through a method called dot voting in which each team member is given a small dot sticker, and they can place it on the flip chart to indicate their preference. Alternatively, the group could discuss and decide together. After deciding on a specific observation or barrier derived from the interview, the team will take this to try to better define the problem and create a point of view or POV statement.

- An example of a POV statement follows this formula:
[Individual] needs [Need] because [insight]
For example:
John, a Hispanic boy, needs to access information about diabetes management because he is not aware of healthy eating habits.
- After creating the POV statement, the team tries creating a How Might We Statement (HMW). The concept of the HMW statement is to identify an area of intervention. Some examples of a HMW statement derived from the POV statement above might be:
How might we increase the advertisement of therapy services in Hispanic communities?
How might we increase physician and provider awareness of therapy services?
- The HMW statement will be the hub for the next stage, where participants will brainstorm solutions.
- Teams will all vote on the best HMW statement they like, like before, with discussion or dot voting.

Stage 3: Ideate (25 minutes)

- Describe the concept of ideate in the design thinking process
- **Group Brainstorming of solutions – 20 minutes**
 - Explain activities and rules for effective brainstorming
 - Each team will take their HMW statement from the previous stage and place it on a blank canvas. Teams will then all brainstorm solutions to the problem. (See slides for tips on brainstorming)
 - In general, the facilitator will want to make this a group activity in which team members are encouraged to build on each other's ideas and support each other
 - If there are lulls or it seems the participants are running out of ideas, the facilitator can introduce creative constraints. For example, the instructor could state that for the next 2 minutes, imagine you have \$1 billion to solve the problem or, alternatively, no budget. Another creative constraint can be to tell the participants to think of solutions that have to do with pets, foods, or sports teams. While this may seem peculiar, it causes people to think outside the box.
- Team evaluates feasibility, viability, and desirability of solutions and dot voting on solutions – **5 mins**
 - Can refine this. It might be easier for teams to rearrange using a 2x2 matrix where the Y axis is the value, and the X axis is the difficulty.

Stage 4: Prototype and test (25 mins)

- Describe the concept of ideate in the design thinking process and provide examples of prototype and test
- The prototyping stage is meant for the teams to try to create a low-fidelity representation of their solution or product. The groups design solutions using white board/Post-it notes – **15 mins**
- Groups present solution to everyone – **10 minutes** (4 minutes per group plus 1 minute feedback)
 - Groups can either explain the solution verbally, demonstrate using whiteboards (flow process), or act out a scenario that would demonstrate how their solution might work
 - Alternatively, the groups can represent the solutions using a storyboard.
 - If the solution leads to a physical product or someone prefers to represent a solution using various materials, crafting materials will be available.

Exit

- Reflection on the process with the groups
- Allow time for questions, and acknowledge any questions the participants may have regarding the design thinking process, the study, or logistics