

Generative Design Method Cards

Generative design research brings the people we serve through design directly into the design process to ensure that we can meet their needs and dreams for the future.

These 29 cards show a selection of methods that can be applied in the development of human-centered products, systems, services and/or environments.

Methods

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Image collaging

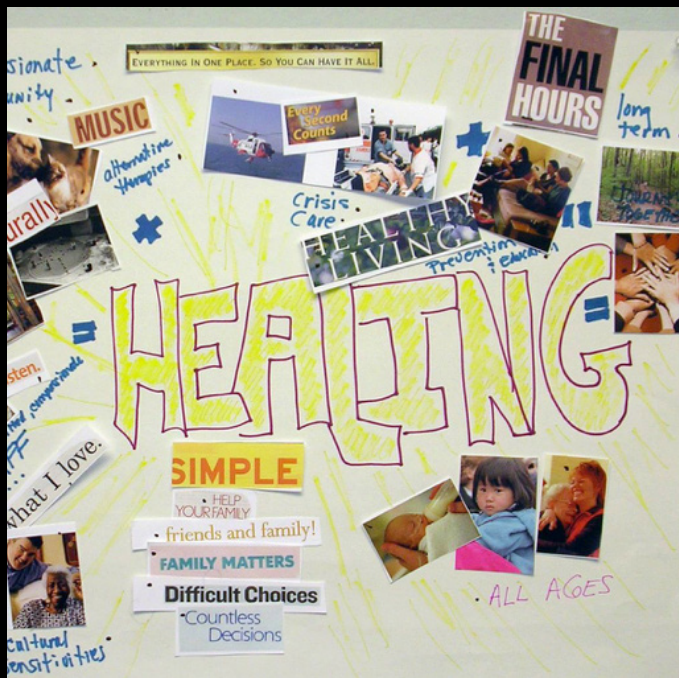


Image collaging

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

Images and words are selected to form a toolkit which is used by people to make a collage that expresses their memories of the past, their feelings about the present or their hopes and dreams for the future.



What if? cards



What if? cards

ACTIVITY

Individual
Collective

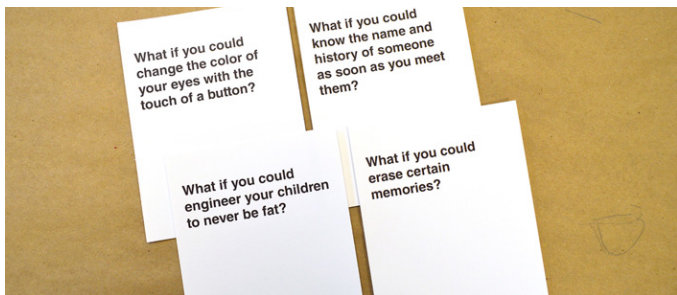
METHOD

Say
Do
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Tell
Enact

EXPERIENCE

Past
Present
Future

A deck of cards each of which contains a provocative image or statement about the future. The cards can be used for sorting, clustering, categorizing, prioritizing, choosing, etc. They can also be used for stimulating idea generation.



Collective visioning



Collective visioning

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

A collaborative event that is held to facilitate a group's ideation and expression of a shared vision for future experience. Supporting materials are pre-selected to provoke the elicitation of latent and tacit needs.



Persona posters

FEARS

HER POTENTIAL FUTURE CHILDREN, HAVING TO GROW UP BOXED UP IN A BUSY AND DIRTY CITY LIKE SHE DID.

DREAMS

SHE WANTS HER OWN FARM, OR AT LEAST HER OWN SPACE OUT IN NATURE.

ABOUT ME

Use the photos to describe your persona. Be sure to include:

- Name, age and gender: PEARL, 21, FEMALE (CONSIDER @ AGE 14).
- Occupation and employment status (SHE'S A TRAINING ASSISTANT)
- Use of technology (how? who are the others in the household)

P.E.R. NOW. (P.C.F., P.O.R. O.P.E., P.O.R. S.H.A.R.E.S.)

ALSO A FUD DELIVERY PERSON!

Persona posters

ACTIVITY

Individual
Collective

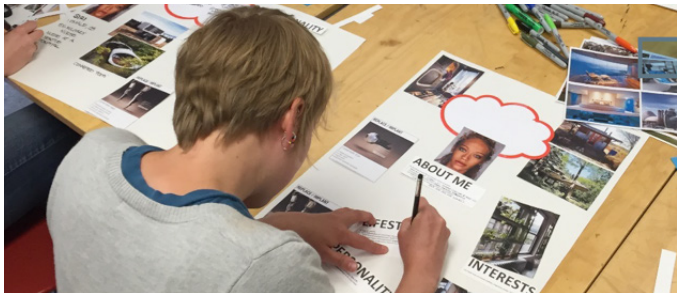
METHOD

Say
Do
Make
Tell
Enact

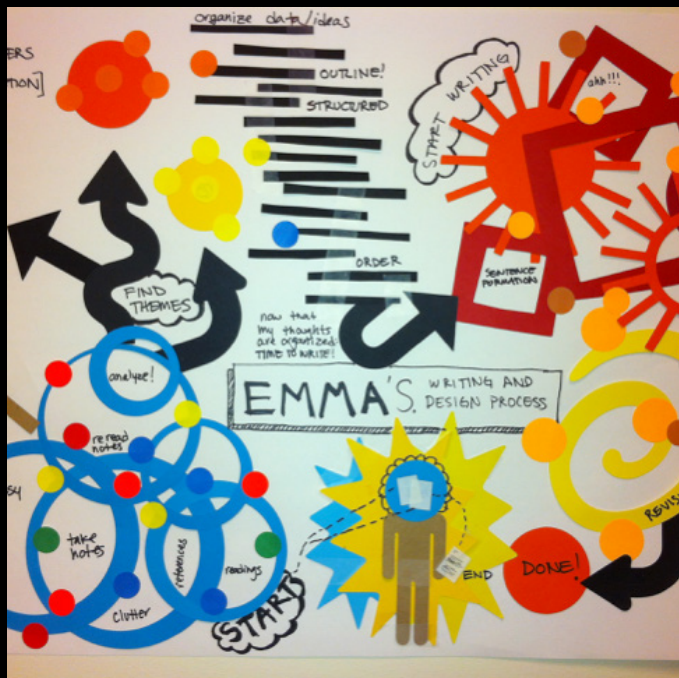
EXPERIENCE

Past
Present
Future

A toolkit with headers, pictures and words that have been pre-selected to support people's creation of personas and/or extreme characters. People often tell you a lot about themselves when they are asked to describe others.



Conceptual modeling



Conceptual modeling

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

The use of either 2D or 3D toolkits to facilitate people's ability to express their understanding of abstract or difficult to describe (in words) phenomena. These photos show conceptual models of the writing process made by different people.



Collective experience mapping



Collective experience mapping

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

A collaborative event that is held to facilitate a group's ideation and expression of a timeline for future experience. The timeline can be short or long. Two endocrinologists are mapping a future clinic visit for patients with Diabetes. Healthcare providers and architects have mapped a future healthcare journey for hospital patients.



Decision making games



Decision making games

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

You can learn a lot about how people make decisions or respond to challenging scenarios by watching them play a game. The game must be designed specifically for the content domain you want to learn about.



The sandbox



The sandbox

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

The sandbox, together with a range of sand toys, encourages playful sessions that are particularly well suited for exploring future scenarios. This method is therapeutic, projective and capable of reaching people's latent and tacit needs.



Ecosystem mapping



Ecosystem mapping

ACTIVITY

Individual
Collective

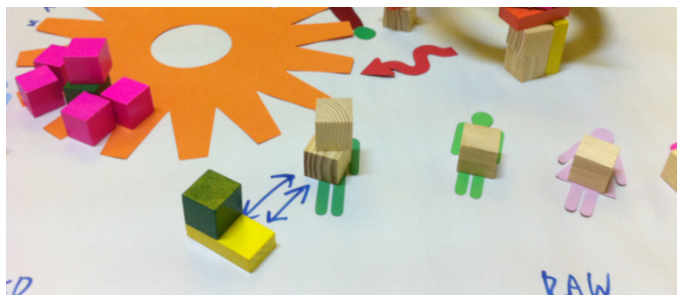
METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

People can create and visualize systems when they have an appropriate set of 2D or 3D (or mixed 2D and 3D) materials to work with. It is important that they are well prepared for this activity since you will ask them to engage in big picture thinking and making.



Velcro-modeling



Velcro-modeling

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

A toolkit of 3D components that connect quickly with Velcro. Velcro-modeling is typically used at the end of a co-design session as a way for people to make "dream catchers" that they can use to enact future scenarios of use.



Improvisation



Improvisation

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

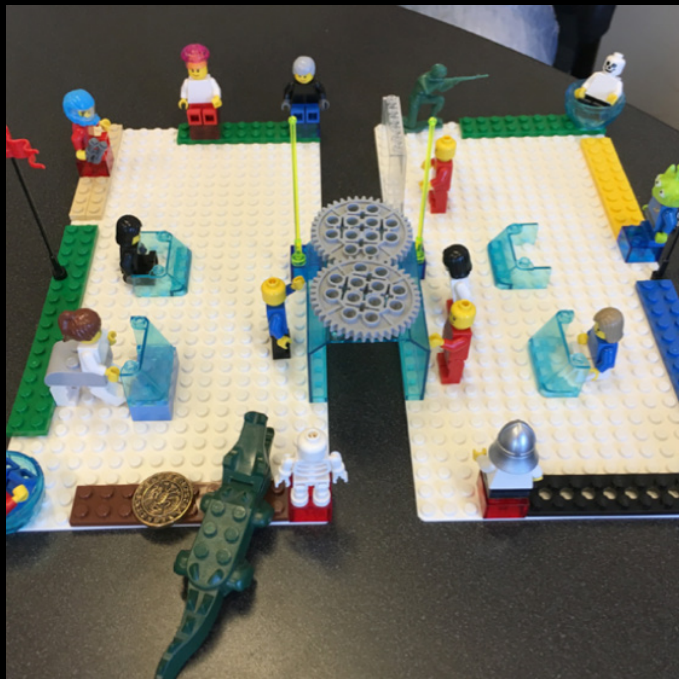
EXPERIENCE

Past
Present
Future

Improvisation refers to action that takes place without prior preparation. It can be used to reveal people's intuitive responses to unanticipated yet possible future situations. Improvisation is aimed at revealing people's intuitive ways of knowing and doing.



LEGO making



Lego making

ACTIVITY

Individual
Collective

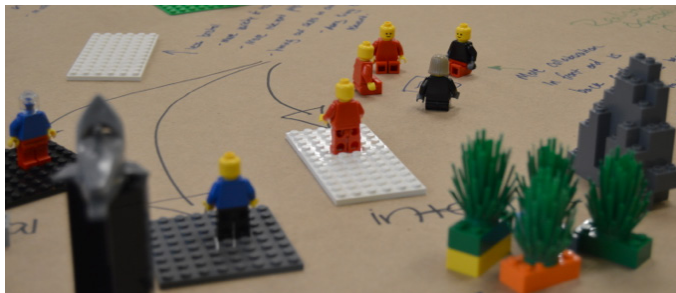
METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

People can make imaginary places and spaces by building them with Legos. The use of Lego minifigures encourages people to act out the scenarios (past, present or future) that would take place in the places and spaces that they have created.



Puppet play



Puppet play

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

Puppets can be used to encourage people to enact their experiences. Puppet play is a form of improvisation that is often more acceptable to participants than is whole-body improvisation. But keep in mind that, while extroverts love it, puppet play is not for everyone.



Make a package



Make a package

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

People can show you what they want in a new product or service by making a package for it. This method is ideal for sparking creativity and for exploring new product/service innovation.



Observations



Observations

ACTIVITY

Individual
Collective

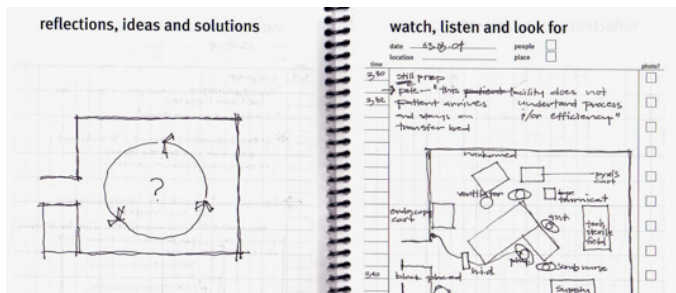
METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

Watching what people do in their natural environment is a good way to learn about them. Observations can vary in terms of the equipment used to capture the observations, the role of the observer, the level of structure used to record the observations, etc.



Collective dreaming



Collective dreaming

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

Collective Dreaming is an application of the basic Image Collaging method that has been adapted for on-line collaboration between people anywhere in the world. The pilot version was developed by David McKenzie and Darwin Muljono as graduate students at The Ohio State University.



Interviews



Interviews

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

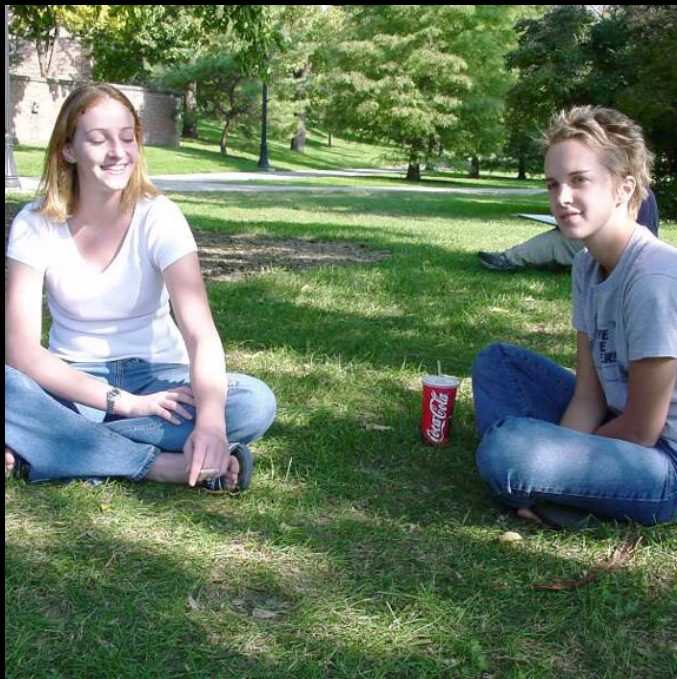
EXPERIENCE

Past
Present
Future

Interviews refer to meetings where one person questions the other. They are structured conversations. Interviews that are conducted in the participant's own environment can provide a greater understanding about the participant and their daily experiences.



Conversations



Conversations

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

Conversations between people are less structured than interviews. They can occur on the spur of the moment and are usually quick and informal. Conversations are usually a good first step in the co-design process.



Surveys

No, Not Aware	Caucasian	John	1	1				y	y	exercise
No, Not Aware	Caucasian	Johnny	1					y	y	helps me eat right
No, Not Aware	Caucasian	Jenny	1					y	y	helps me eat right and ex
No, Not Aware	Caucasian	Cynthia O'choa		1	1		1	n	n	
No, Not Aware	Caucasian	Dorinda Klein	1	1			1	n	n	
No, Not Aware	Caucasian	Paul Miller	1					n	n	
No, Not Aware	Caucasian	Ryan Miller	1					n	n	
No, Not Aware	Caucasian	Jaque Johnson	1	1				n	y	encourages me to make choices
No, Not Aware	Caucasian	Carl Brown		1				n	y	we discuss choices in he
No, Not Aware	Caucasian	Ruth Brown		1				n	y	we discuss choices in he
No, Aware	Caucasian	Elaine	1					y	y	cares a great deal. Tries
No, Aware	Caucasian	Ryan	1					n	n	doesn't say much
No, Aware	Caucasian	Tim	1					n	n	doesn't say much
No, Aware	Caucasian	Dan	1					n	n	doesn't say much
No, Aware	Caucasian	Carolyn	1					n	n	doesn't say much
No, Aware	Caucasian	Pam	1					n	n	doesn't say much
No, Aware	Caucasian	Keith	1					n	n	doesn't say much
No, Aware	Caucasian	Mark					1	n	n	doesn't say much
No, Aware	Caucasian	Paul					1	n	n	doesn't say much
No, Aware	Caucasian	Phil					1	n	n	doesn't say much
No, Aware	Caucasian	Randy					1	n	n	doesn't say much
No, Not Aware	Caucasian	Anny - wife	1					y	y	wants me to take better c
No, Not Aware	Caucasian	Zoli - son	1					y	y	why I need to take better myself
No, Not Aware	Caucasian	Hannah - daughter	1					y	y	why I need to take better myself
No, Not Aware	Caucasian	Larry					1	n	n	not their concern
No, Not Aware	Caucasian	Jeff		1	1			n	n	not their concern
No, Not Aware	Caucasian	Keven		1	1			n	n	not their concern
No, Not Aware	Caucasian	Mom	1					n	n	not their concern
No, Not Aware	Caucasian	Dad	1					n	n	not their concern
No, Not Aware	Caucasian	John		1			1	n	n	not their concern
No, Not Aware	Afr-Amer	Jada - daughter	1					n	y	she lives in san francisco with my diet
No, Not Aware	Afr-Amer	Denni - son	1					n	y	sent me to a personal tra
No, Not Aware	Afr-Amer	Debra Wheatley		1				n	y	talk about medications, f
Yes	Afr-Amer	Reggie - son	1					n		
Yes	Afr-Amer	Richard - son	1					n		
Yes	Afr-Amer	Jerry - son	1					n		
Yes	Afr-Amer	Jr. - grandson	1					n		
Yes	Afr-Amer	mom	1					n	0	
Yes	Afr-Amer	lois		1				n		
Yes	Afr-Amer	dr osu				1	1		y	doctor
No, Aware	Caucasian	Ev - wife	1	1				y	y	assists and awareness
No, Aware	Caucasian	mother	1					n	n	

Surveys

ACTIVITY

Individual
Collective

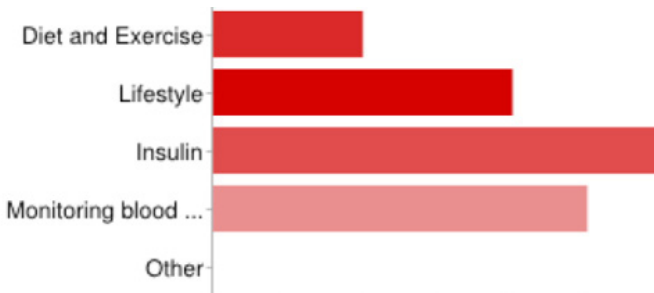
METHOD

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EXPERIENCE

Past
Present
Future

Surveys contain a series of questions to be asked of people. They can be conducted face-to-face or on-line. On-line surveys are a good way to get responses from many people from around the world. The results of the survey are only as useful as the questions that go into it.



Daily logs

Activity 1: How I am disposing daily items ...

Daily Log – Day 1

Specify the item that was disposed of	Period of day			Disposal methods					
	Morning	Noon/ daytime	Evening	Flushed	Poured down sink	Household waste bin	Recycling waste bin	Compost	Other
Example Toilet paper	(M)	(D)	(E)	✓					
Toilet Paper tubes	(M)	D	E				✓		
Sandwich wrapper	M	(D)	E			✓			
veg veg peelings	M	D	E					✓	
Tea bags	(M)	D	(E)					✓	
Coffee grounds	(M)	D	E		✓				
Old clothes	M	(D)	E				✓		
Cleaning bottle	M	(D)	E				✓		
	M	D	E						
	M	D	E						
	M	D	E						
	M	D	E						
	M	D	E						
	M	D	E						

Daily logs

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

Ask people to record their daily routine behaviors in order to understand their current experiences. This activity can be used as "homework" that helps to get the participants immersed in reflecting on their daily experiences before they come to a co-design session.

Time	Icons	Method	Experience
8:45	Wipe, Soap, Rinse, Dry	Wipe	wipe
8:45	Wipe, Soap, Rinse, Dry	Wipe	Soap water
8:25	Wipe, Soap, Rinse, Dry	Wipe	rinsed
8:45	Wipe, Soap, Rinse, Dry	Wipe	rinsed
9:02	Wipe, Soap, Rinse, Dry	Wipe	rinsed
9:20-9:28	Wipe, Soap, Rinse, Dry	Wipe	rinsed hands 5x each
9:40	Wipe, Soap, Rinse, Dry	Wipe	Soap water
9:45	Wipe, Soap, Rinse, Dry	Wipe	rinsed off
10:15	Wipe, Soap, Rinse, Dry	Wipe	paper foot shower

I am not as diligent about sanitizing after I sneeze/blow nose at home, but at work it's 100%!

Used BR

laundry soap residue

sweats from housework

Immersion workbook or worksheet

<p>Gentle facial cleaning wipes <input type="checkbox"/> Flush <input type="checkbox"/> Bin</p>  <p>Cooking oil</p> <p><input type="checkbox"/> Pour down the sink <input checked="" type="checkbox"/> Dispose in container</p>	<p>Baby wipes <input type="checkbox"/> Flush <input type="checkbox"/> Bin</p>  <p>Flushable wipes</p> <p><input type="checkbox"/> Flush <input type="checkbox"/> Bin</p>	<p>Dental floss <input type="checkbox"/> Flush <input type="checkbox"/> Bin</p>  <p>Expired medicine</p> <p><input type="checkbox"/> Flush <input checked="" type="checkbox"/> Bin <input type="checkbox"/> Pour <input type="checkbox"/> Bring to pharmacy</p>
 <p>Toilet paper</p> <p><input checked="" type="checkbox"/> Flush <input type="checkbox"/> Bin</p>	 <p>Tomato soup</p> <p><input type="checkbox"/> Pour down the sink <input type="checkbox"/> Dispose in container</p>	 <p>Biodegradable eco baby wipes</p> <p><input type="checkbox"/> Flush <input type="checkbox"/> Bin</p>
 <p>Fat from roasting pan</p>		

Immersion workbook or worksheet

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

It is best to prepare people ahead of time to think about the topic that they will be exploring in a co-design session. You can send a workbook or worksheet to participants before they come to the session to guide them in making notes and reflecting on something they do everyday but do not think about often.



Full scale space planning



Full scale space planning

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

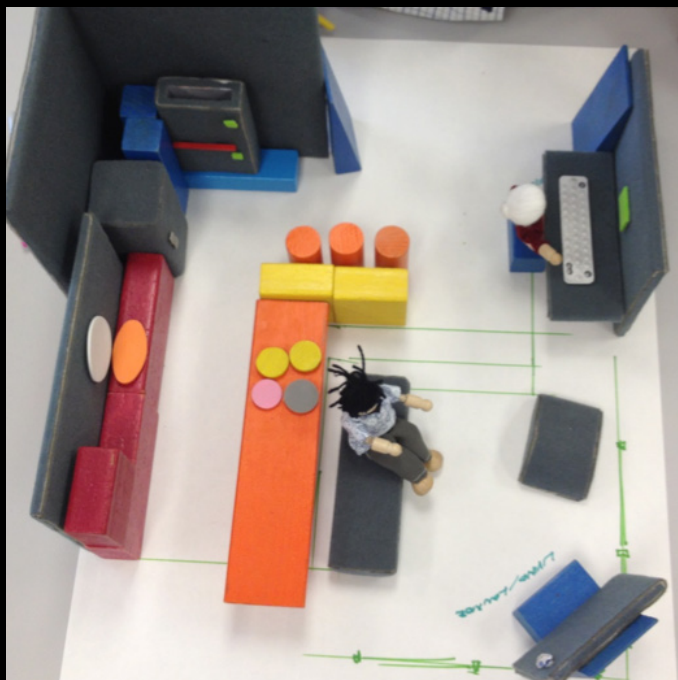
EXPERIENCE

Past
Present
Future

People can easily express their ideas for future spaces that they will work or live in when they are given the opportunity to make the space. After they have made the space they can actually test it out to see if it works for them.



Small scale space planning



Small scale space planning

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

People can express their ideas for future spaces that they will work or live in when they are given the opportunity to make the space. Dolls are important to include in this toolkit to help the participants understand the scale. Dolls are also useful for encouraging the participants to enact scenarios in the spaces.



The dollhouse



The dollhouse

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

The dollhouse is a small scale space planning toolkit that was designed specifically for exploring new hospital spaces. The photos show nurses exploring new patient room ideas. Many additional uses for the dollhouse toolkit have emerged over time.



Provotypes



Provotypes

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

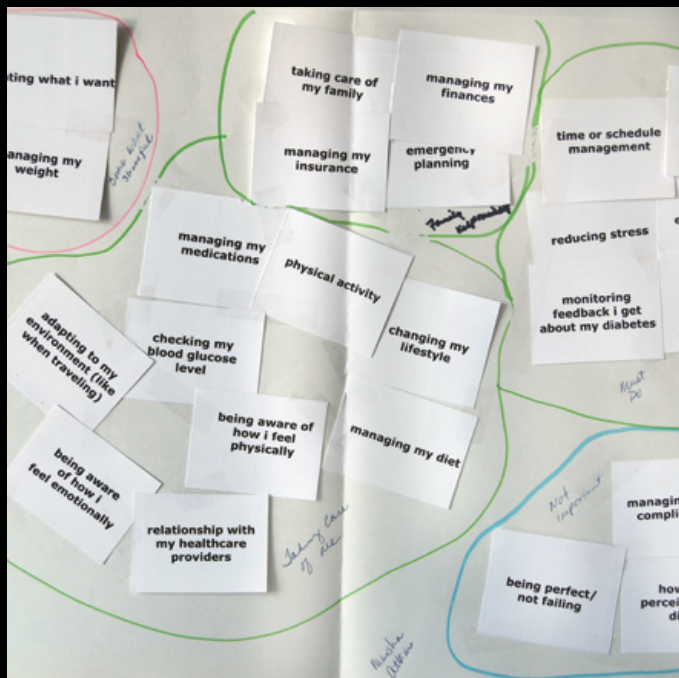
EXPERIENCE

Past
Present
Future

A provotype is a prototype that has been created for the purpose of provoking people to think about the future. Provotypes that are made of material such as Velcro-modeling can be quickly modified by participants to better reflect their views on the future.



Card sorting



Card sorting

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

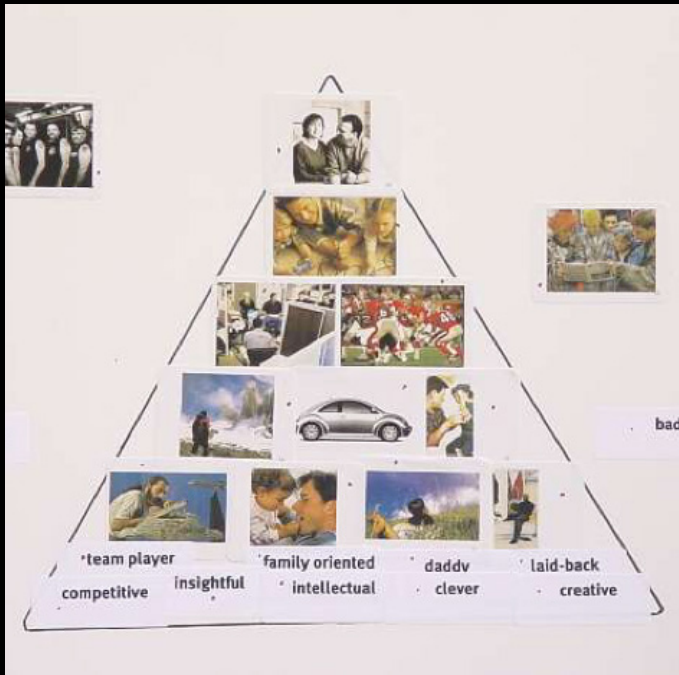
EXPERIENCE

Past
Present
Future

Ask people to sort a pre-selected collection of cards into categories to get a glimpse of how they understand a content domain. The sorting categories can vary. For example, "cluster the cards in whatever way makes sense to you", "organize the cards into your likes and dislikes", "make a story using the cards", etc.



Exploring self perception



Exploring self perception

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

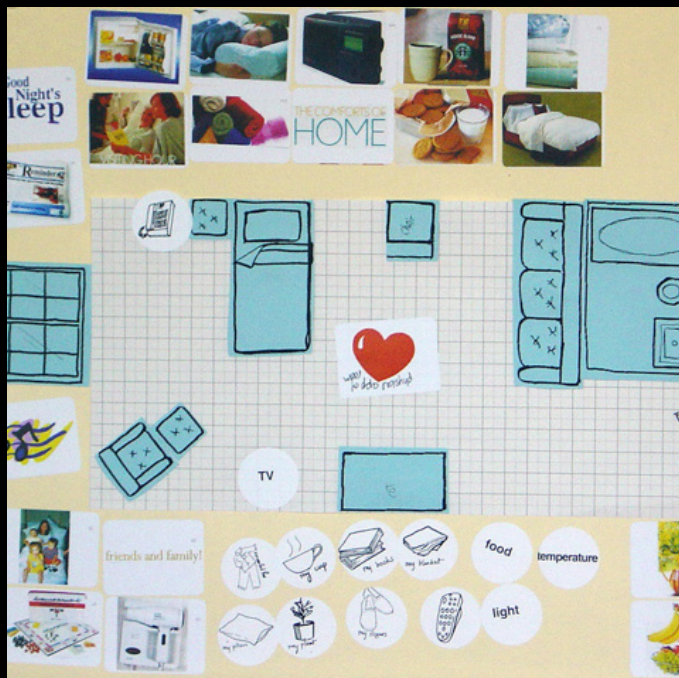
EXPERIENCE

Past
Present
Future

How do your participants see themselves? The self perception triangle encourages them to prioritize their thoughts and feelings since they can place only the one most salient item at the top. People can show you how they perceive themselves or how they would like others to perceive them in the future.



2D space planning



2D space planning

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

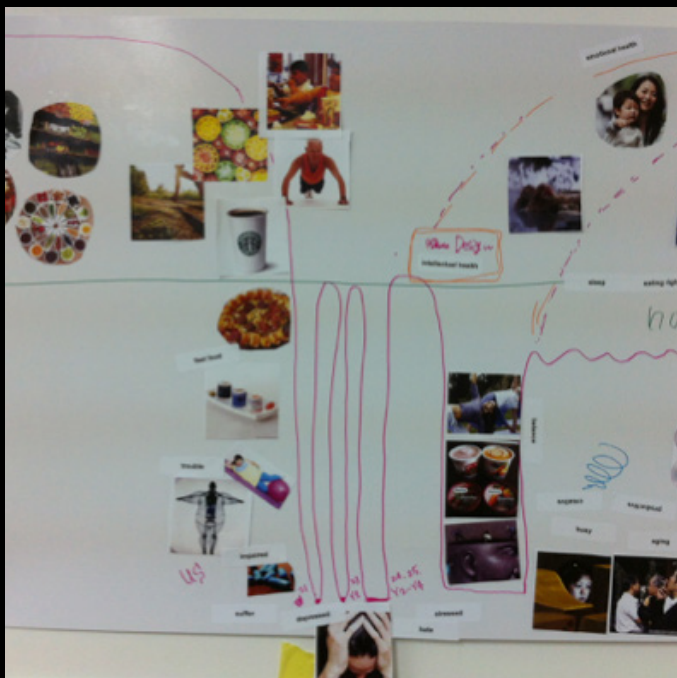
EXPERIENCE

Past
Present
Future

People can imagine and express ideal spaces using 2D materials that have been designed to elicit their thinking about the qualities of the space including the physical components, the activities that take place there, the feelings they would like the space to evoke, etc.



Individual experience mapping



Individual experience mapping

ACTIVITY

Individual
Collective

METHOD

Say
Do
Make
Tell
Enact

EXPERIENCE

Past
Present
Future

People use the pre-selected images, words and shapes to describe an experience along a timeline. Everything above the line is positive and everything below the line is negative. The higher up you go, the more positive it is. And the lower down you go, the more negative it is.

