co-designing

CONVIVIAL TOOLBOX

GENERATIVE RESEARCH
FOR THE FRONT END OF DESIGN

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OLD > THE TRADITIONAL DESIGN DISCIPLINES

visual communication design
industrial design
interior space design
architecture
interaction design

NEW > THE EMERGING DESIGN DISCIPLINES

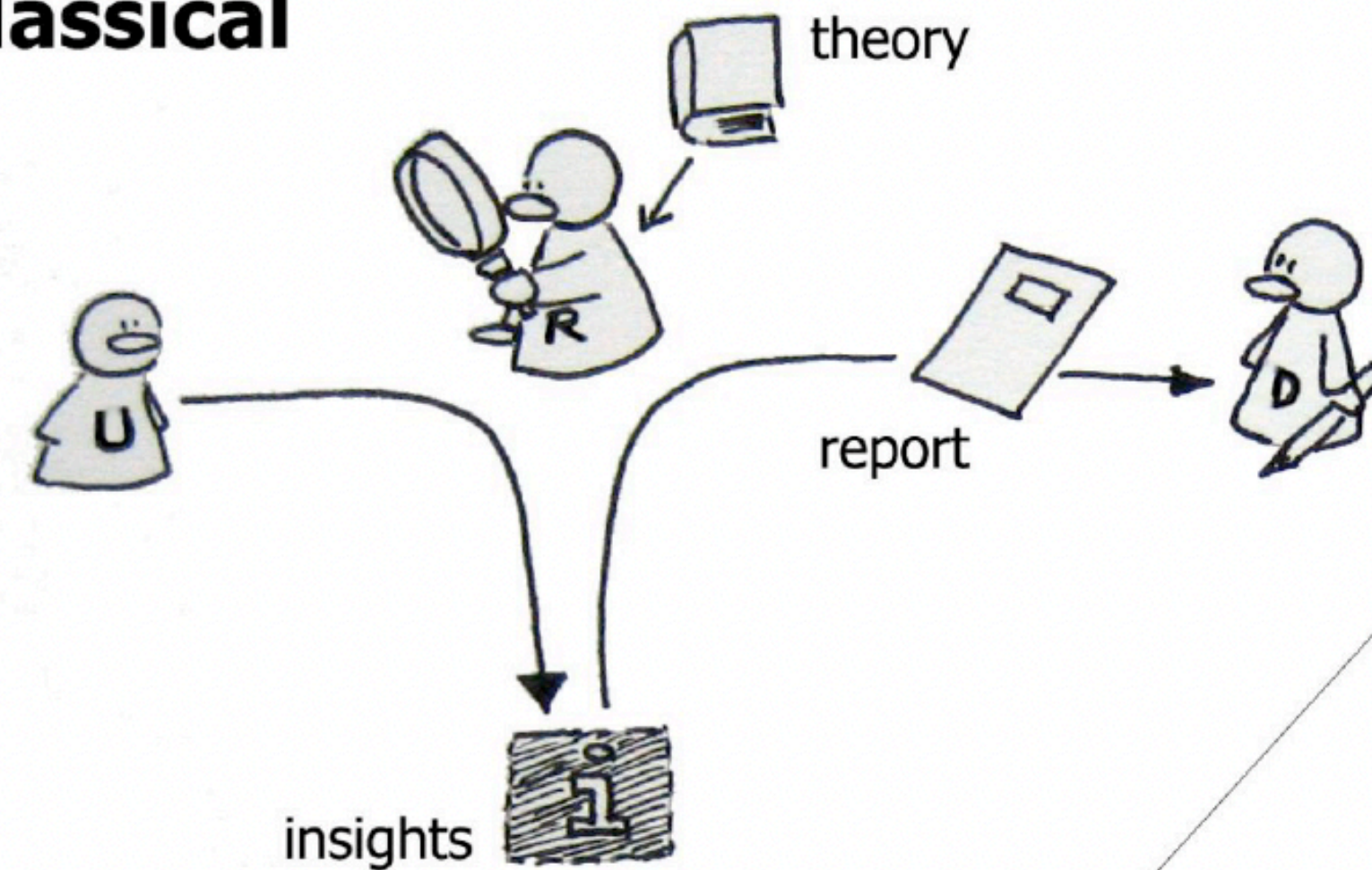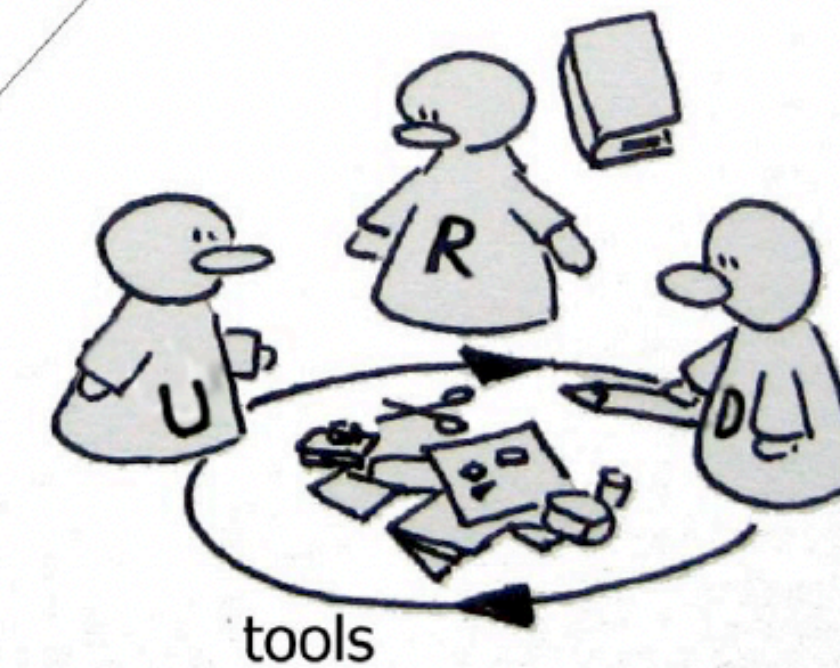| design for experience	design for service	design for innovation	design for transformation	design for sustainability

Figure 3 Classical roles of users, researchers, and designers in the design process (on the left) and how they are merging in the co-designing process (on the right).

user-centered design

- user is a passiv object of study
- researcher adds knowledge from the observations and interviews to the theory
- designer receives a report of the study

co-design

- user is an expert of his/her experience

User has a role:
- in knowledge development
- in idea generation
- in concept development

Researcher & designer develope tools together for ideation and expression

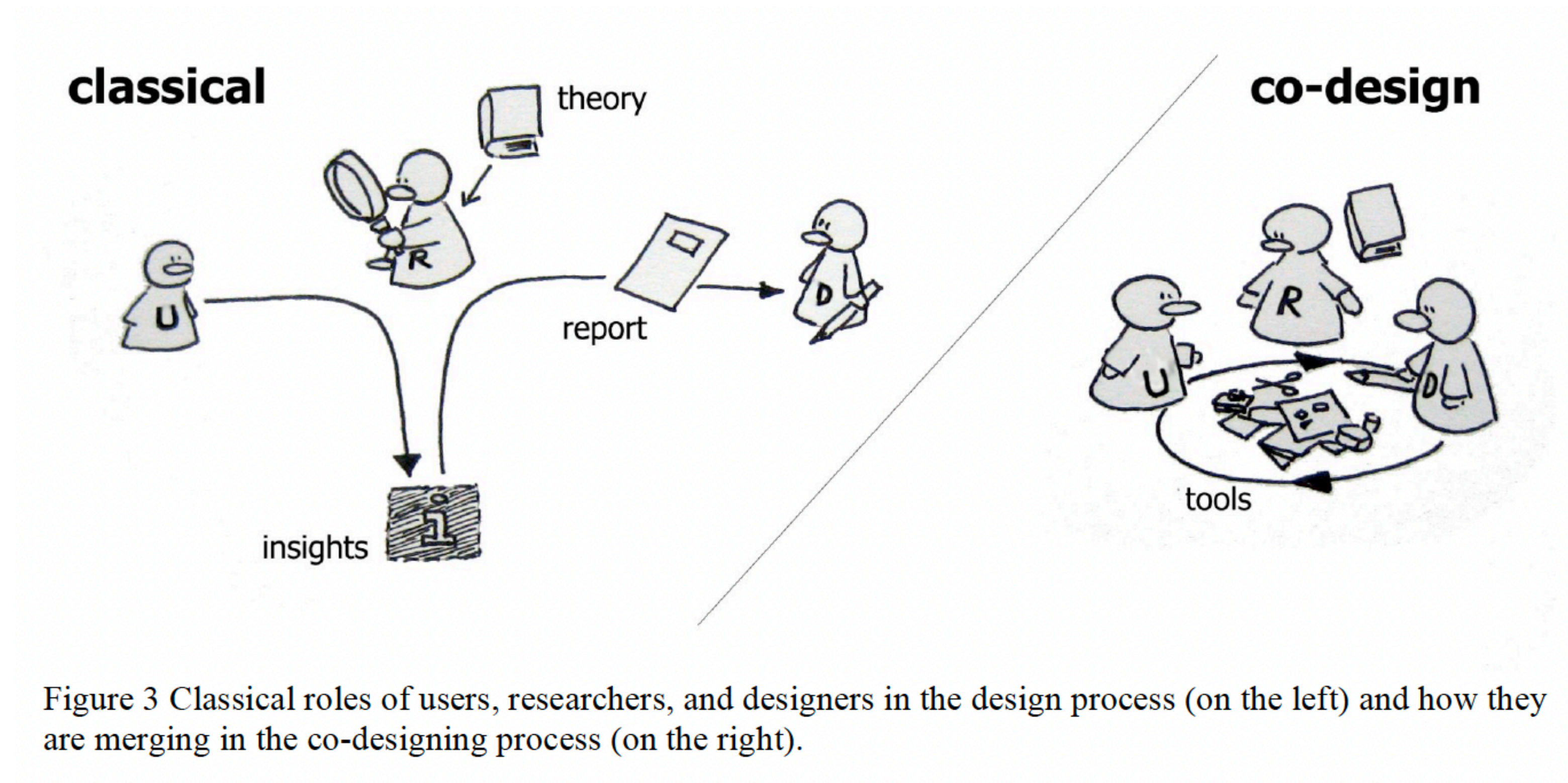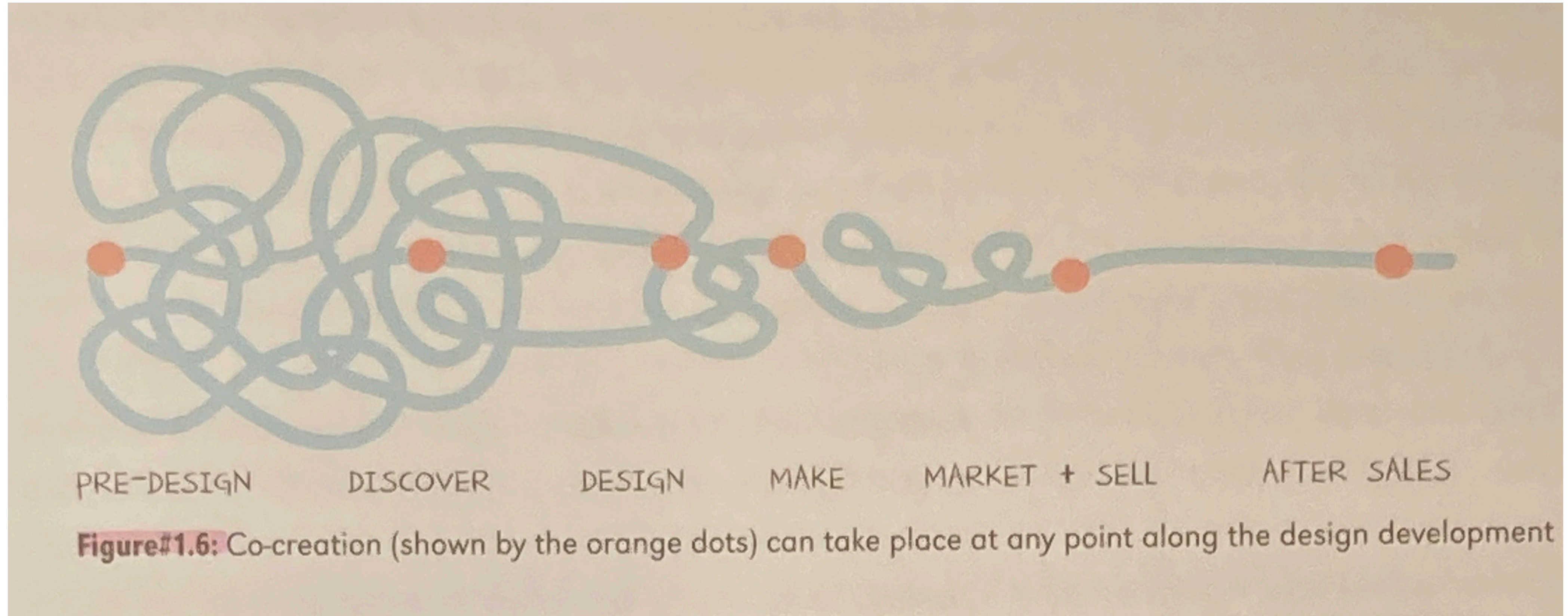Designer's role is till to give form to ideas

Figure 3 Classical roles of users, researchers, and designers in the design process (on the left) and how they are merging in the co-designing process (on the right).

In user-centered design researcher is a translator between the user and the designer

In co-designing researcher (who could be designer) takes the role of a facilitator

co-creation in design process

Figure#1.6: Co-creation (shown by the orange dots) can take place at any point along the design development

Pre-design - research phase with problem definition, highest opportunity for innovation
Discovery - opportunity identification and translation of research to design
Design - exploration, design and development
Making - production and manufacturing
Marketing & sales - implementation
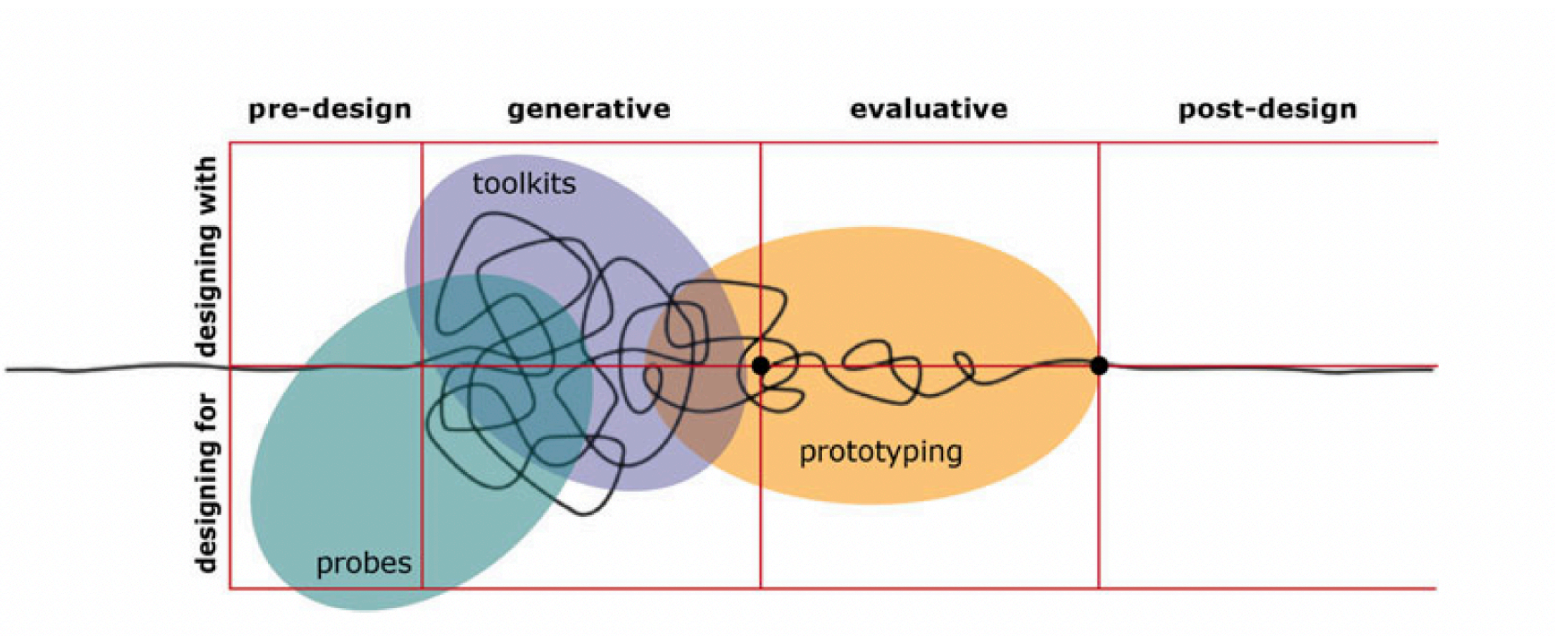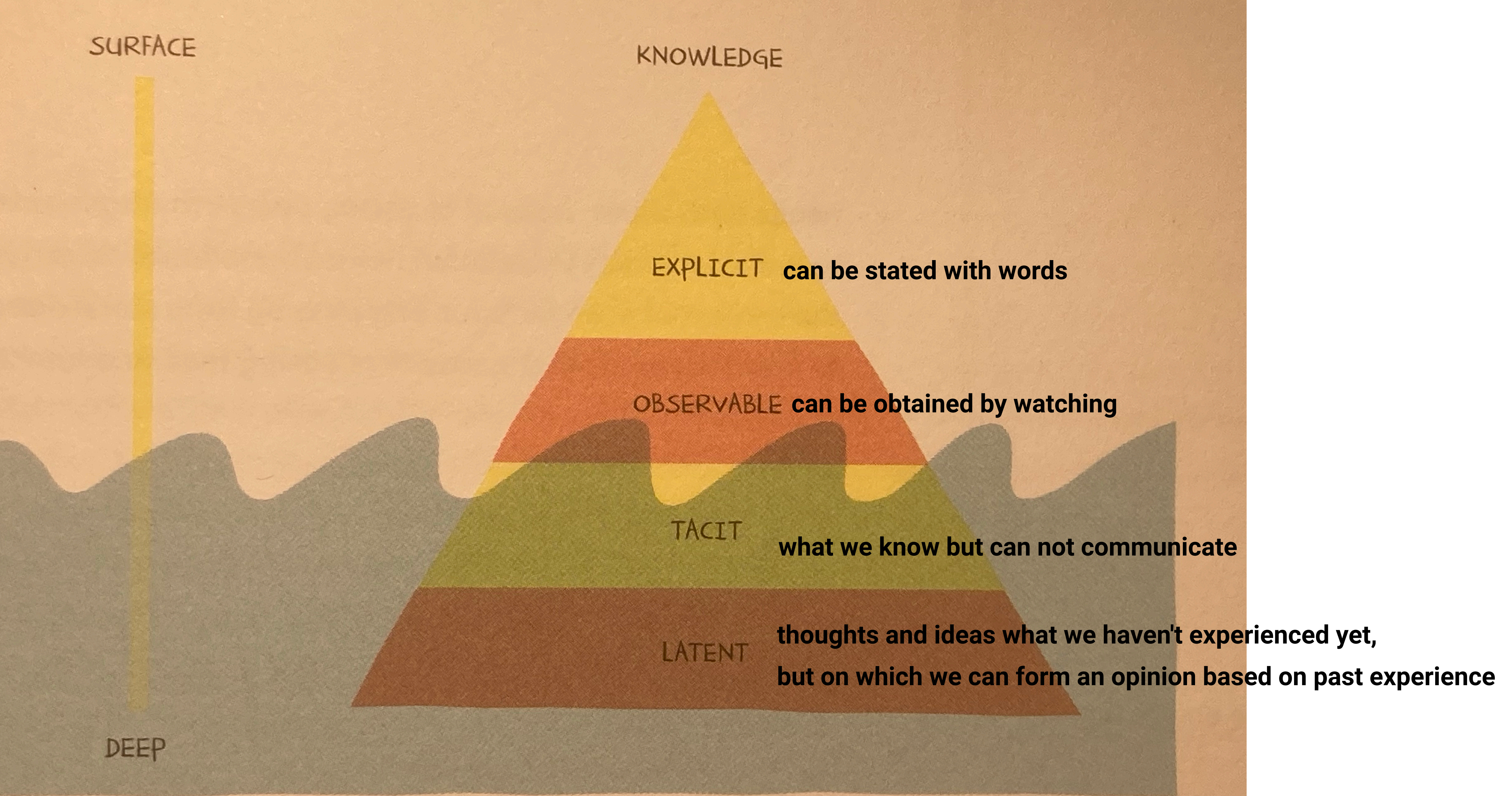**After sales** - products use and service

pre-design   generative   evaluative   post-design

designing with

designing for

toolkits

probes

prototyping

Table 1. A comparison of the three approaches to making.

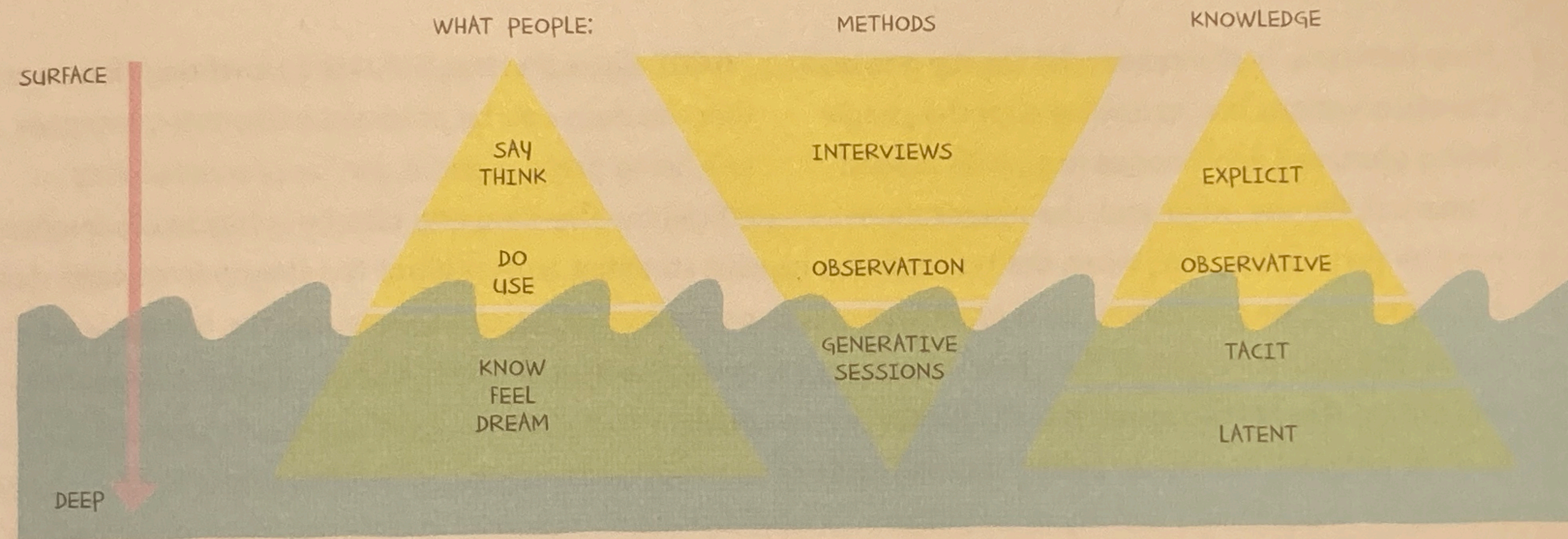|	Probes	Toolkits	Prototypes
What is made?	Probes are materials that have been designed to provoke or elicit response. For example, a postcard without a message.	Toolkits (made up of a variety of components) are specifically confirmed for each project/domain. People use the toolkit components to make artefacts about or for the future.	Prototypes are physical manifestations of ideas or concepts. They range from rough (giving the overall idea only) to finished (resembling the actual end result).
Why?	Designers find inspiration in users' reactions to their suggestions.	To give non-designers a means with which to participate as codesigners in the design process.	To give form to an idea, and to explore technical and social feasibility.
What is it made out of?	Probes can take on a wide variety of forms such as diaries, workbooks, cameras with instructions, games, etc.	Toolkits are made of 2D or 3D components such as pictures, words, phrases, blocks, shapes, buttons, pipe cleaners, wires, etc.	Prototypes can be made from a very wide array of materials including clay, foam, wood, plastic, simple digital and electronic elements.
Who conceives?	Designers create the probes and send them to end-users and other stakeholders, often with little or no guidance of how the end-users should treat them.	Designers and researchers make the toolkits and give them to others to use to make artefacts. The process is often facilitated or guided.	Codesigners create the prototypes to envision their ideas and to display and to get feedback on these ideas from other stakeholders.
Who uses?	End-users and other stakeholders individually complete the probes, returning them to the person who sent them out.	End-users and other stakeholders use them to make artefacts about or for the future. Toolkits work with both individuals and small groups.	Designers use the prototypes as design tools. End-users may use the prototypes during evaluative research events.

SURFACE

KNOWLEDGE

EXPLICIT — can be stated with words

OBSERVABLE — can be obtained by watching

TACIT — what we know but can not communicate

LATENT — thoughts and ideas what we haven't experienced yet, but on which we can form an opinion based on past experience

DEEP

Figure#2.15: Some levels of knowledge are easier to access than others

SURFACE

WHAT PEOPLE:

METHODS

KNOWLEDGE

SAY
THINK

INTERVIEWS

EXPLICIT

DO
USE

OBSERVATION

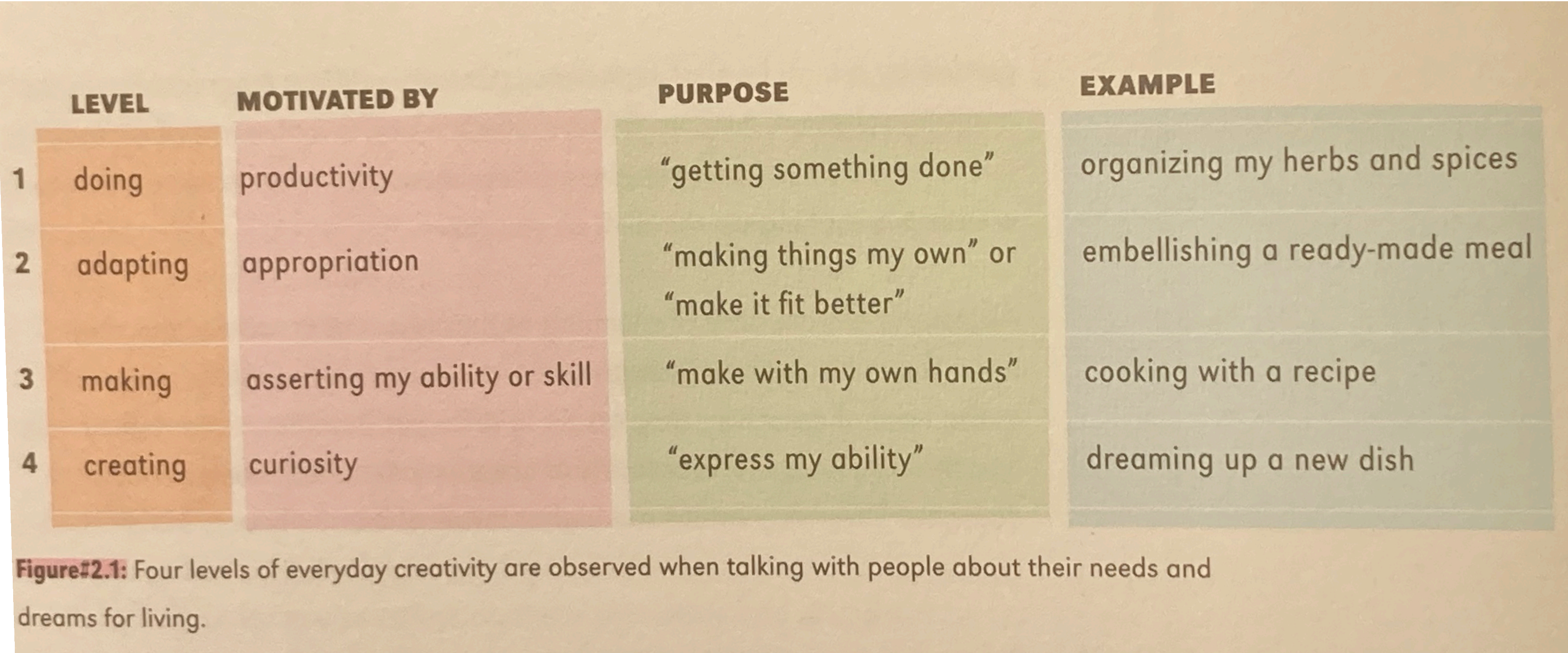OBSERVATIVE

KNOW
FEEL
DREAM

GENERATIVE
SESSIONS

TACIT

LATENT

DEEP

ure#3.2 Methods that study what people Say, Do, and Make help access different levels of knowledge.

four levels of creativity

LEVEL		MOTIVATED BY	PURPOSE	EXAMPLE
1	doing	productivity	"getting something done"	organizing my herbs and spices
2	adapting	appropriation	"making things my own" or "make it fit better"	embellishing a ready-made meal
3	making	asserting my ability or skill	"make with my own hands"	cooking with a recipe
4	creating	curiosity	"express my ability"	dreaming up a new dish

Figure#2.1: Four levels of everyday creativity are observed when talking with people about their needs and dreams for living.

lead people who are on the "doing" level of creativity
guide people who are at the "adapting" level,
provide scaffolds that support and serve peoples'need for creative expression at the "making" level,
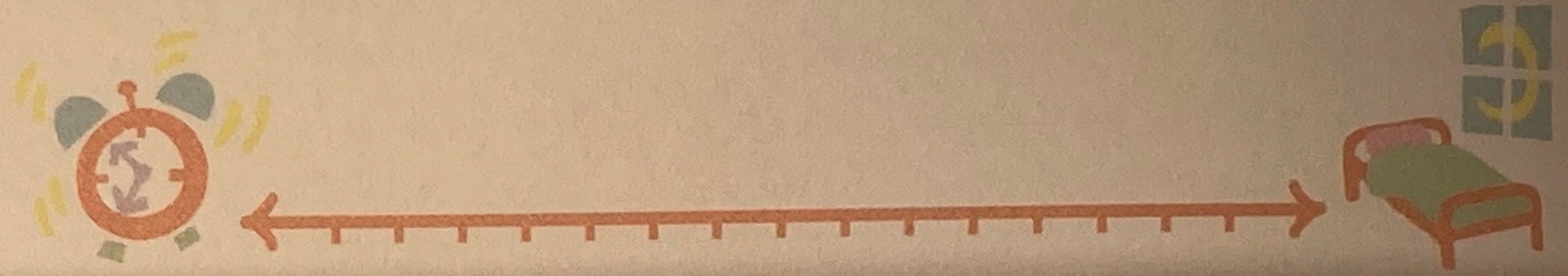**offer a clean slate** for those at the "creative" level

sensitizing

People involved in creative sessions will need to be prepared beforehand.
A week for the immersion process - for example with diaries or workbooks to guide them
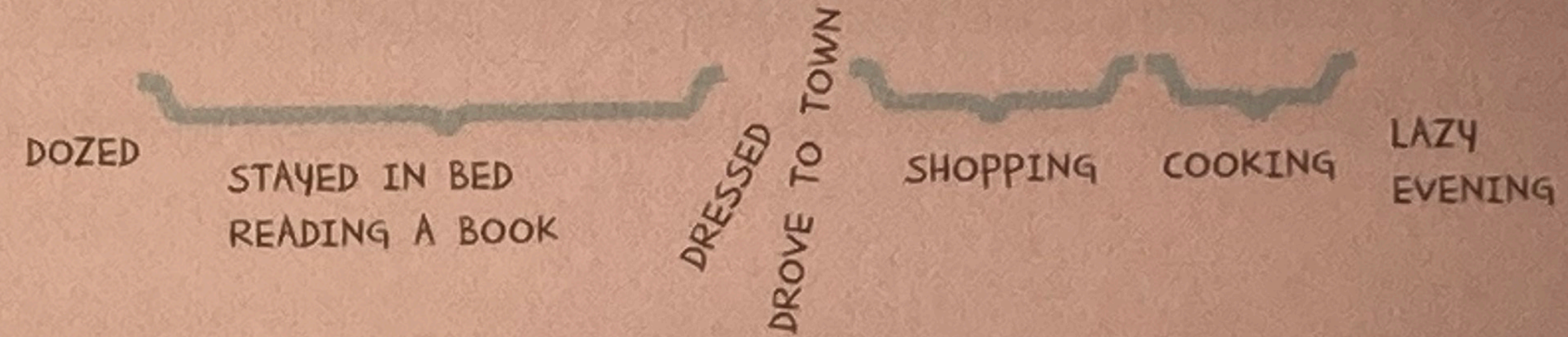in self-documentation.

layering

0 the empty timeline

1 the layer of facts is added

DOZED   STAYED IN BED   DRESSED   SHOPPING   COOKING   LAZY
READING A BOOK   DROVE TO TOWN   EVENING

2 'smileys' and 'frownies' are added to indicate high and low points

3 reasons why the points were high or low have now been added

JUST THAT EXTRA BIT FOR MYSELF   ACCOMPLISHED A NEW RECIPE

Figure#2.16: The day in the life exercise can be used to layer people from stories to a description of their needs and values

the path of expression
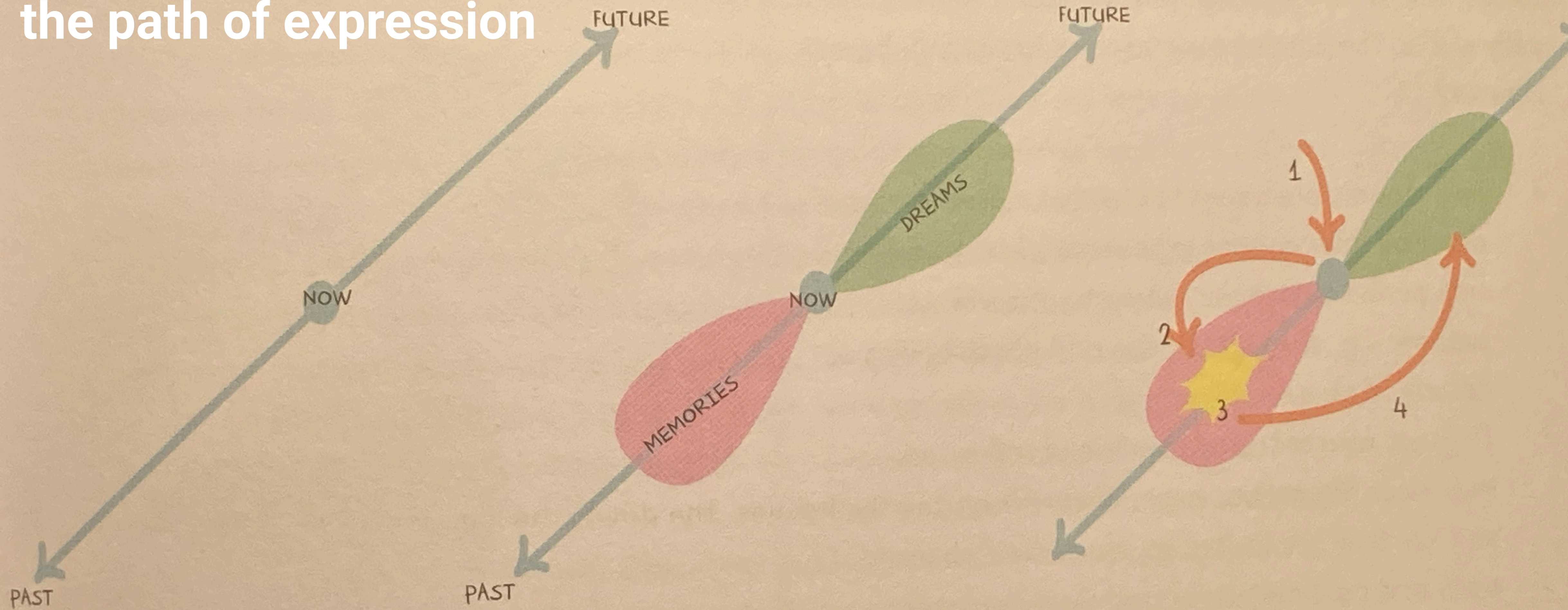
Figure#2.17: The experience of the moment (now) is connected to past and future through memories and dreams. The path of expression (right) shows how a person's awareness can be guided in steps by thinking first of the present, then of the past, then looking for underlying layers, in order to move toward the future.

the path of expression

1 Start with observing and documenting their **current activities** around the topic of
    study (what they do)
2 Recall memories from **earlier experiences** using a Make exercise
    (photos, words, quotas)
3 Reflect on those memories and possibilities for the **future** with a Make exercise that
    allows for abstract and experiental expression
4 Express in a make exercise with a make tool to create artifacts for **future experiences**

make toolkits
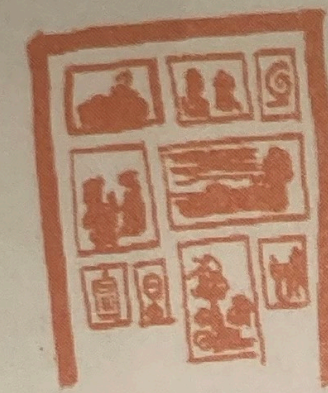
Photos tend to elicit emotions and memories, suggest complete situations and stories, and carry many different layers of meanings and associations.
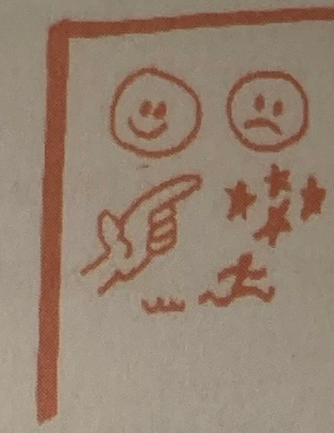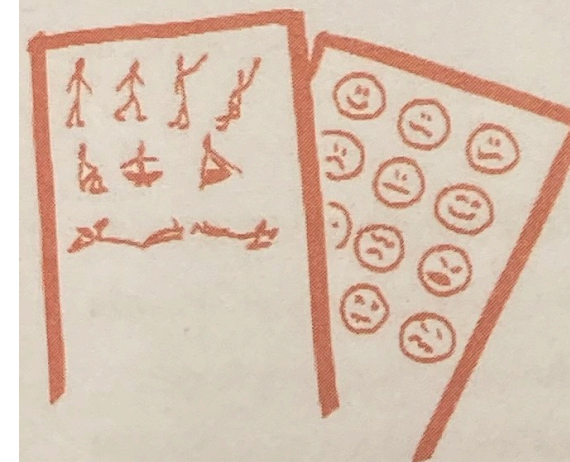
Systematic sets can be used to suggest and express values across an entire dimension, such as a systematic collection of emotional expressions, or a set of body postures.
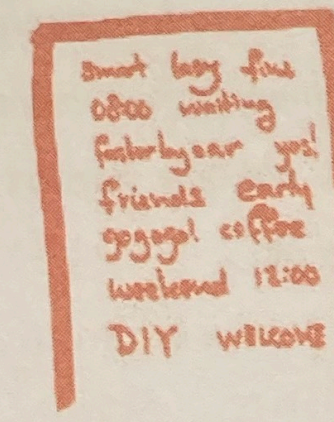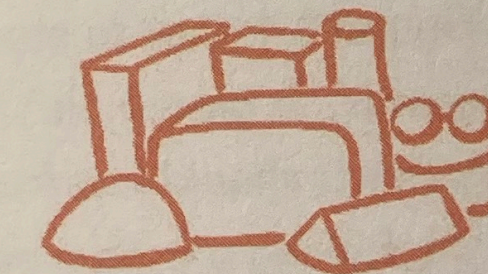
Words are powerful at expressing abstractions such as symbolic meaning or emotional content. Words are also good starting triggers for people who are more accustomed to using words vs. thinking with pictures.
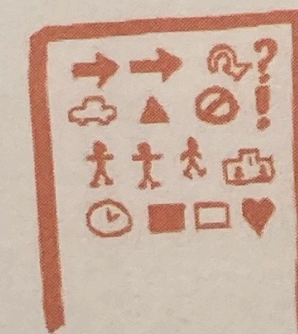
**Puppets** can be used to provoke storytelling and to set the stage for exercises in empathy.

Velcro-covered 3D shapes can be quickly assembled into rough product 'prototypes' and smaller add-on functionality.

Symbolic shapes support making abstractions and formulating general relations, patterns, and rules.

Raw collections of scrap materials can be used for constructing objects or for embellishing rough prototypes.

Cartoonlike expressions often leave room for a variety of interpretations. They can also add an element of fun.
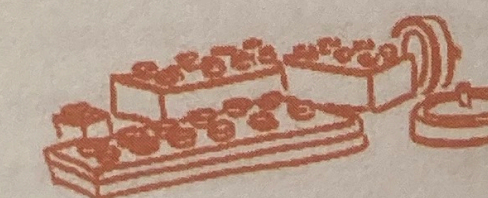
Legos and other construction kits are also useful for prototyping concepts.

Figure#3.3 Some ingredients that can be used in Make toolkits and where we have observed them to work well