

St. Paul's Millennium Hospital & Medical College



Thinking Design:

Models and Methods for Patient Centered and Medical Student Centered Practices

For Healthcare Professionals, Medical Faculty
and Medical College Students

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Thinking Design:

*Models and Methods for Patient Centered & Student Centered Practices
For Healthcare Professionals, Medical Educators and Medical Students*

St Paul's Hospital and St. Paul's Millennium Medical College

Introduction and Background

Thinking Design is a systems approach that uses practical research based methods to assure a healthy organization that supports and grows effective communication with and between leadership and the whole organization. It uses tools that thoughtfully and effectively communicate ideas within and outside organization to create collaborations. It honors and understands the abilities and gifts of all members of an organization.

Thinking Design training uses the *Thinking Design* research based methods that include:

Thinking:
*The Most Important
Human Resource
for Life Long
Visioning, Problem
Solving, and
Decision Making*

- **Visual Tools (Thinking Maps):** the use of visual tools to map out ideas;
- **Questioning for Inquiry:** high quality use of questions and shared inquiry;
- **Collaborative Networking:** collaborative thinking; collegial coaching and community building methods;
- **Developing Dispositions:** characteristics, dispositions, habits of mind;
- **Designing a Thinking Environment:** how the physical space, human interaction and resources are organized, integrated and used.

To live fulfilling lives, people will need to develop the knowledge, skills and dispositions required to shape the lives they can imagine for themselves and their families. The thinking tools are instrumental in knowing oneself, connecting with others, and exploring pathways of successful collaborations supporting a healthy and success organization. Thinking Design methods are lifelong thinking and learning skills used for problem solving individually and collaboratively in the whole organization including leaders, professional and staff members.

The training has multiple sequential stages:

Introduction for learning, practice for mastery, and mastery.

Objective of the Consultancy

The objective of *Thinking Design: Methods for Patient Centered* consultancy training is to provide a participant-centered approach to learn, share and think best with one's personal capacity while supporting quality practices for the whole organization. The specific objectives include:

- knowing ourselves;
- understanding thinking individually and as a collaborative organization;
- using visual tools to organize our thinking and understand each other's thinking;
- introducing to Thinking Design pathways including inquiry, dispositions, collaborative methods, thinking environment; and
- developing a sustainable sequential plan that supports the hospital and medical teaching college with implementation of the thinking organization approach within the organization.

The consultants will support the whole organization implementation including developing a team of *Trainer of Trainers* to assure sustainability with the Thinking Designs model.

Learning Outcomes

The Thinking Design approach is recommended for the whole organization including the organizations leadership, teaching faculty, professional staff, support staff, students, and volunteers. The Thinking Design model are life long tools and skills for communication, understanding each other's perspective, problem solving and a quality collaborative learning environment. The Thinking Design approach is concurrently student centered (medical college) and patient centered (hospital professional and support staff) that promotes active thinkers and problem solvers.

Training Outcomes

The Thinking Designs trainers will build understanding, mastery and capacity within the hospital and medical college with the methods of thinking. This will include:

- personal mastery
- building a shared vision
- team learning
- developing mental models
- creating a systems thinking organization

The outcomes will be assessed by The Five Areas for Reflection and Fifteen Criteria Thinking Organizations Assessment Process (see within this document).

Consultants

Robert Seth Price has extensive experience with whole organization (NGOs, universities, foundations) and school change through a transformational design process. Simply, how can we collaboratively and thoughtfully affect learning outcomes as a process for our whole community, our vision, and individually. His work with a participant learner centered systems approach includes collaborations in the USA and globally, including with Thinking Foundation, Thinking Schools International and Thinking Schools Ethiopia. Further information on Robert can be found at:

www.eggplant.org • www.thinkingfoundation.org • www.thinkingschoolsethiopia.org

Seble Hailu has worked in government, private, non –government and UN organizations in different managerial positions leading project and program management for nearly twenty years throughout Ethiopia. In addition, she has extensive experiences in training and consultancy, in management, HIV/AIDS, psychology, counseling, education and community mobilization related fields.

Guide

The participants will use a guide that includes:

- Thinking Design Implementation
- The Models: Thinking Maps, Inquiry, Dispositions, Collaborative Learning, Thinking Environments

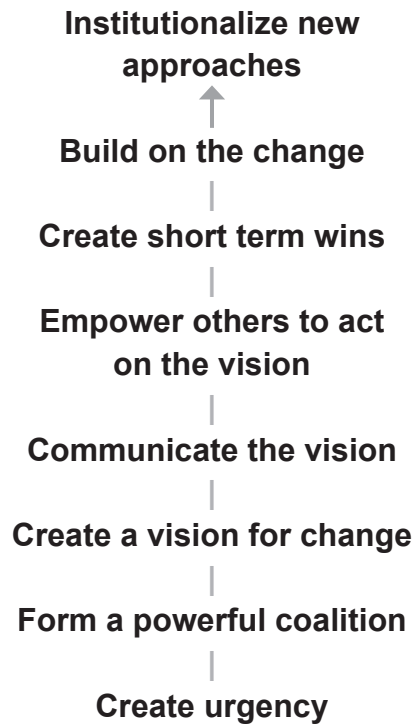
Video

Video will be modeled and used to develop a library at the university of best practices.

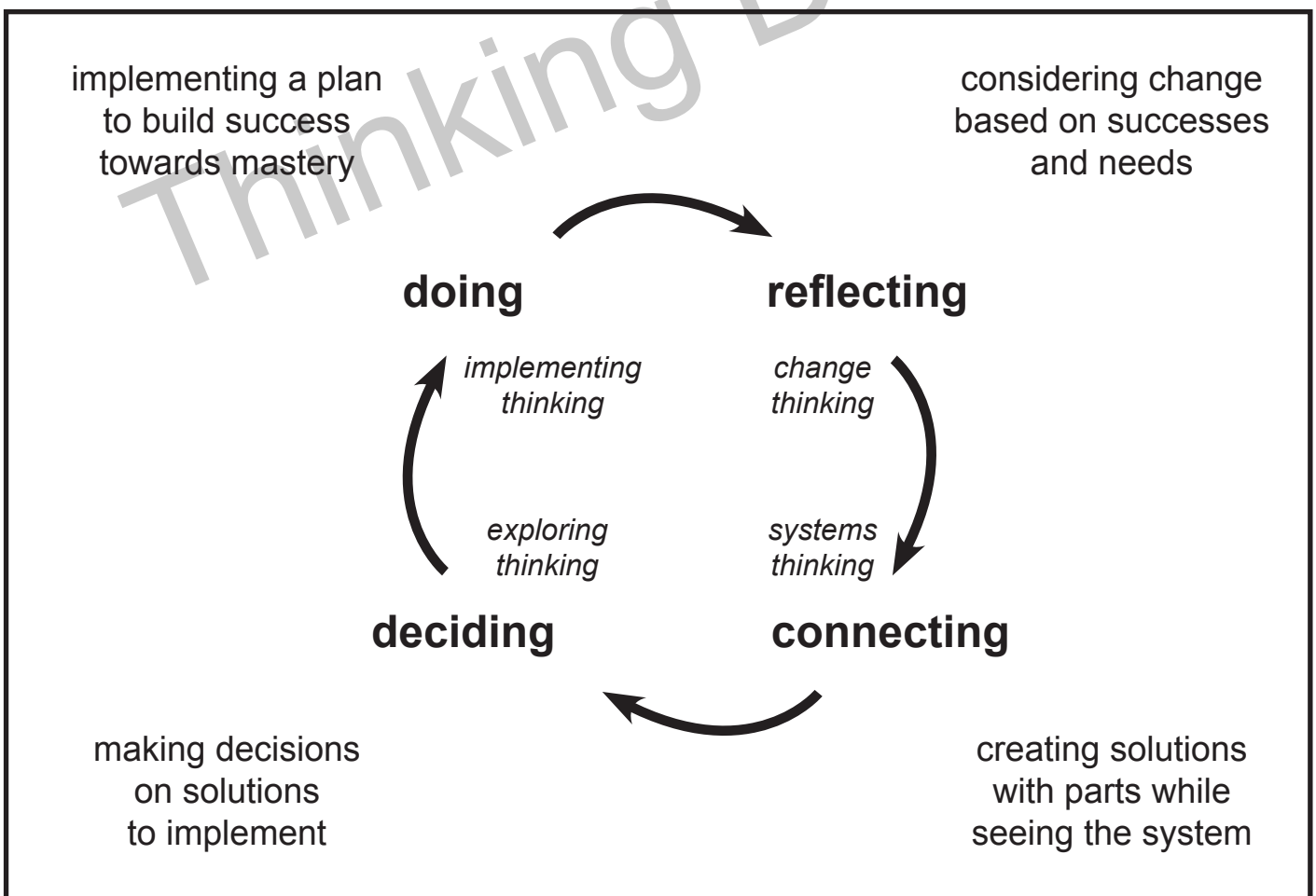
Change

Kotter's Change Model

Professor John Kotter, Harvard Business School.

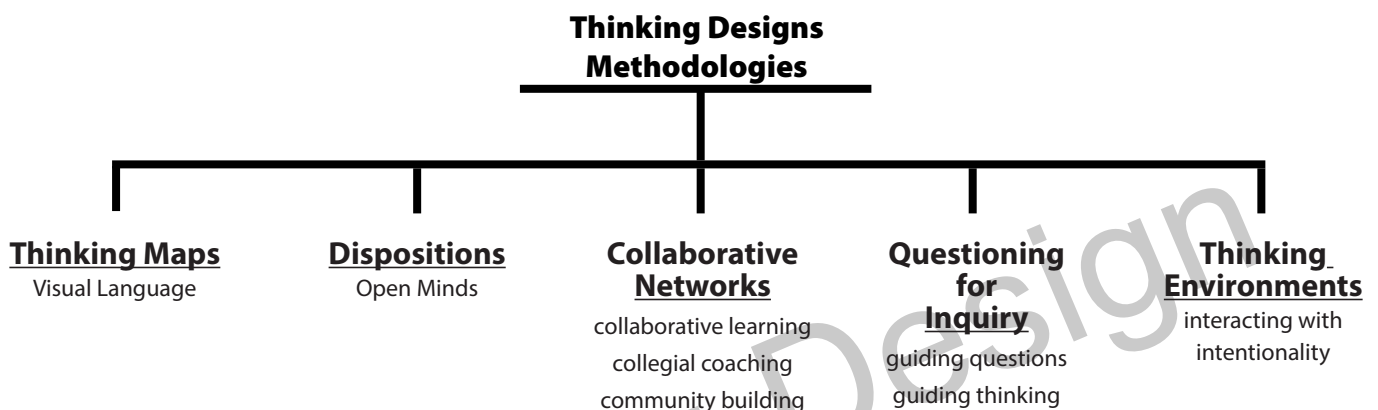
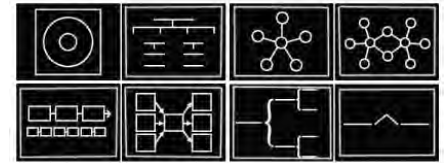


Change Process



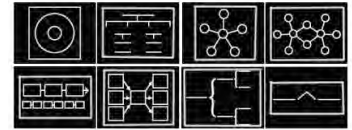
Training Methodologies

The Thinking Design training is participant-centered learning with hands-on application using content that is relevant to the participants. The key pathway of the training is “Thinking Maps” which is a cognitive visual mapping language providing a concrete foundation to organize one’s thinking, understand each other’s thinking and each other’s perspectives (frame of reference). This maximizes an organization’s capacity to think, understand, and perform effectively to succeed individually as well as collaboratively.



Training Methodology: Thinking Maps® (Visual Tools)

Thinking Maps are consistent visual patterns linked directly to eight specific thought processes. By visualizing our thinking, we create concrete images of abstract thoughts. These patterns help the whole organization reach higher levels of critical and creative thinking individually and collaboratively. Thinking Maps establish a consistent language for thinking and problem solving.



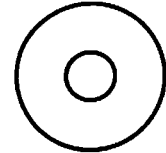
Thinking Maps®



How are we defining this topic?
What is the context? What are our frames of reference which influence our points of view?

DEFINING IN CONTEXT

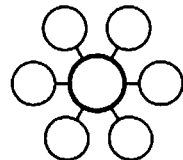
Circle Map



Let's describe the topic. Using adjectives and adjective phrases, what are the sensory, logical and emotional attributes present?

DESCRIBING QUALITIES

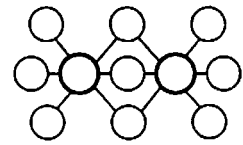
Bubble Map



Let's compare our ideas. Where are the similarities? and differences?
How does the present situation compare to our identified goal?

COMPARING and CONTRASTING

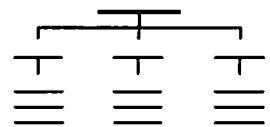
Double Bubble Map



How could we classify these ideas into groups or categories?
What are the main ideas, supporting ideas and details this information?

CLASSIFYING

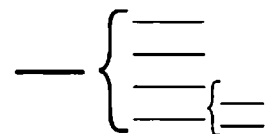
Tree Map



Are there any physical, component parts and subparts that we need to analyze?

PART TO WHOLE

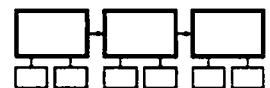
Brace Map



What do we think happened?
What is the sequence of events?
Let's prioritize our solutions and then create a sequential plan of action.

SEQUENCING

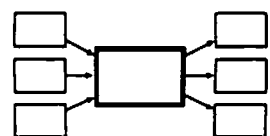
Flow Map



What are the short and longterm causes and effects of this event?
What are the feedbacks in the system? Given our solution, let's predict what will happen over time.

CAUSE AND EFFECT

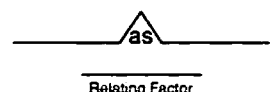
Multi-Flow Map



How is this situation related to other experiences we know? What analogy is guiding our thinking?

SEEING ANALOGIES

Bridge Map

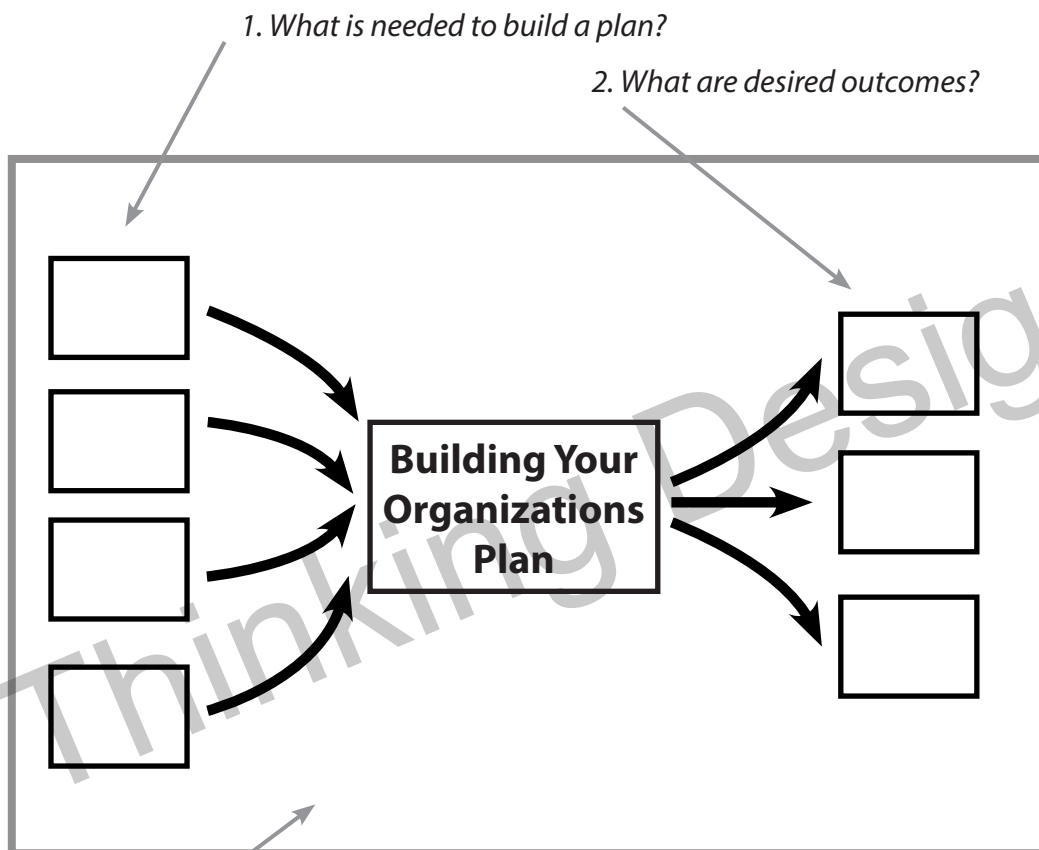


Training Methodology: Thinking Maps® and Frame of Reference

A frame of reference can be used with any map. It is a meta-cognitive frame asking participants to think about their thinking. They will be asked to step back from the map they created to think about what influenced their thinking.

The following questions could be asked to know the frame.

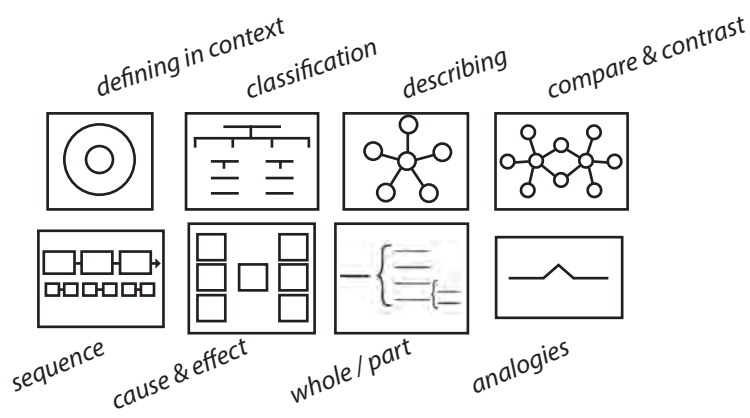
- How do you know what you know about the topic?
- Did your information come from a specific source?
- Is this information being influenced by a specific point of view?
- Who could use this information?
- Why is this information important?



Reflective Frame of Reference:

What are sources of information you can access to assist you?

What is each person's role in the organization?



Training Methodology: Depth and Complexity with Frame of Reference

The Depth and Complexity model provides depth of thinking as a thinker, as a problem solver and with collaborations. The following process is effectively used as part of our thinking with reflective questioning, visual mapping, collaborative networking, dispositions and structuring a thinking environment. Depth and Complexity is very effectively used with the Frame of Reference.



Note Details

elaborate; identify attributes; note the parts; important factors



Identify The Rules

state the explicit or implicit factors that affect an area of study; the structure; the order; the hierarchy; the elements that set the standards



Observing Patterns

identify reoccurring elements and events; determine the order of events; predict what comes next



Recognizing Trends

note factors that cause events to occur (social, political, economic, geographic); identify patterns of change over time



Identify Ethical Considerations

determine elements that reflect bias, prejudice, discrimination; state observations and arguments in terms of ethics



Reflective Questions

use questions to: identify unclear ideas or missing information; discuss areas yet to be explored or proven; note conclusions that need further evidence or support



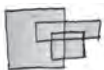
What is the Generalization, Principle, Theory or Big Idea

identify a rule or general statement that summarizes information or draws conclusion based on evidence drawn from a collection of facts or ideas



Relationships Over Time

describe relationships between past, present and future; relationships within a time period; how or why things changed or remained the same



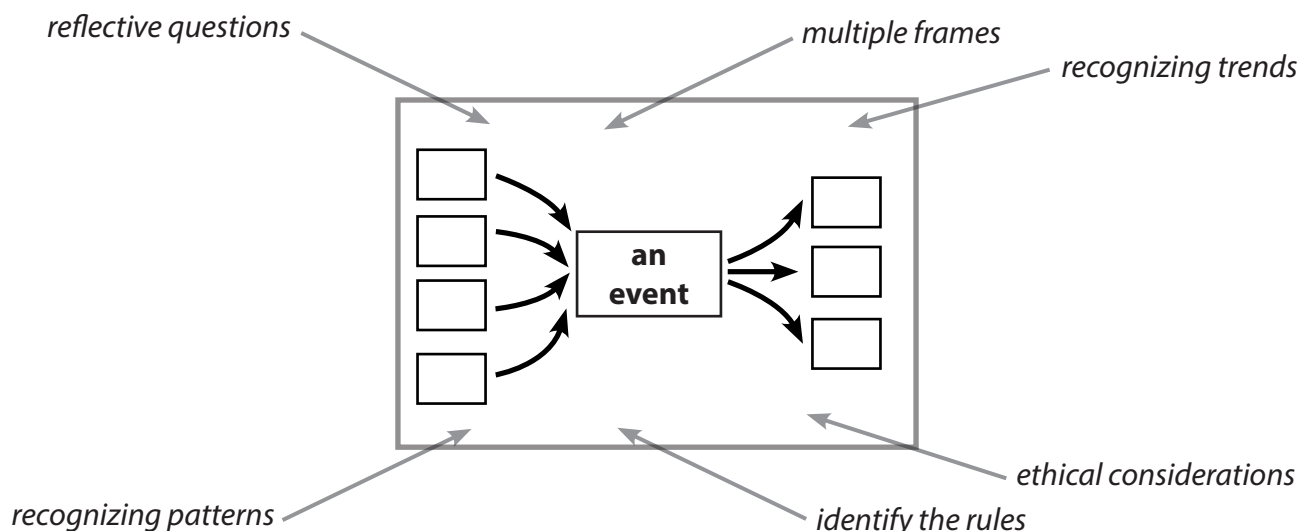
Multiple Frames of Reference (Perspectives)

discuss multiple perspectives related to area of study; explore different viewpoints; reflect on diversity within a society



Interdisciplinary Connections

relate and integrate the area of study to include the methodology of other disciplines



Training Methodology: Questioning for Inquiry

When problem solving and/or visioning, it is important to ask interpretive questions that build upon one another. Interpretive questions are effective both with well planned discussions and in spontaneous situations. Interpretive questions stimulate ideas, communication, understanding and problem solving.

Types of Questions

- **Factual** - A factual question has only one correct answer.
- **Evaluative** - An evaluative question asks the participants to decide if s/he agree with the ideas or point of view (frame of reference). The answer to an evaluative question depends on the person's prior knowledge, experience, and opinions.
- **Interpretive** - An interpretive question has more than one answer that can be supported with evidence from background knowledge and research. Interpretive questions keep discussions going and require the participants to refer to experiences, knowledge and research.

Writing Interpretive Questions

Developing quality interpretive questions to guide visioning and problem solving begins with understanding the thinking process. This guides practice and mastery of inquiry to create interpretive questions that guide effective and productive discussions for problem solving.

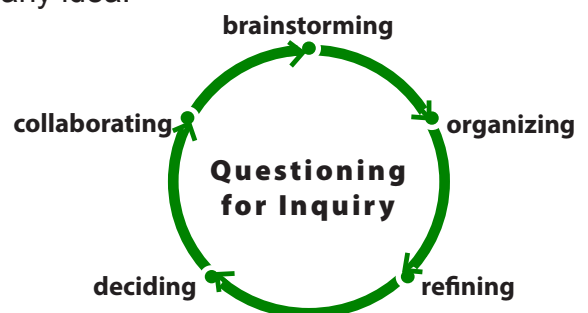
Testing the Questions

If a question is open to different possible answers collaborators will be willing to share their input:

- *You should have genuine interest in the question.*
Collaborators will 'read' your interest (or lack of) in the question.
- *The question should stimulate discussion.*
The question should create an interest in revisiting the vision and/or problem solving for further understanding.
- *The question should be clear.*
The collaborators (or patients) should easily understand the question.
- *The question should be specific.*
The question should fit the topic and not generic to any idea.

Questioning for Inquiry Collaboratively

- brainstorming questions
- organizing questions
- refining questions
- deciding questions
- collaborating with discussions



The Question Game

To start the question game the two participants must initially decide on a topic to question. One person starts with an open ended question, then the other person responds with a related open ended question. This continues back and forth with the two participants. The process can start from an object, a topic, or a photograph. An example is an object in the room such as a light bulb:

- Questioner A: *How does a light bulb work?*
- Questioner B: *Who designed the current light bulb?*
- Questioner A: *Who invented the light bulb?*
- Questioner B: *Why would someone invent the light bulb?*
- Questioner A: *How can we improve the light bulb?*

Training Methodology: Collaborative Networking

Collaborative Learning, Collegial Coaching, Building Community

Collaborative Thinking Learning Methods

Collaborative Thinking Learning Methods is a relationship among co-workers that requires positive inter-dependence (a sense of sink or swim together), individual accountability (each of us has to contribute and learn), interpersonal skills (communication, trust, leadership, decision making, and conflict resolution), face-to-face promotive interaction, and processing (reflecting on how well the team is functioning and how to function even better).

Collegial Coaching

Collegial Coaching is a model that focuses on healthcare professionals and medical educators regularly observing each other to learn, understand, and improve their patient centered methods and pedagogy (teaching methods). This model works best in groups of three - one professional demonstrating while two other professionals observe. The observed demonstrations are generally in the 15-30 minute range to provide a focus on particular methods. The model includes a briefing, demonstration and debriefing.

This model is a multi-directional process: everyone has gifts and skills to share and learn from one another. This differentiated process allows everyone to progress at a rate consistent with their skills. The model is an ongoing process for both new and experienced professionals and medical educators.

Systems Model: This model is equally effective with administrators coaching administrators; facilitators coaching facilitators, support staff coaching support staff.

Ongoing Development: Professionals regularly participant with the Collegial Coaching model throughout the calendar year.

Building Community

Building Community is developing authentic relationships between people to better understand each other's gifts, respect collaborations as part of the greater community, and learn from one another to develop a greater whole. Building community begins with specific methods and exercises that the whole group (and sub-groups) regularly participates together.

The above three models of **Collaborative Learning, Collegial Coaching, Building Community** are focused on:

- personal mastery
- building a shared vision
- team learning
- developing mental models
- creating a systems thinking organization

Collaborative Thinking Methods

Collaborative Thinking is a relationship among co-workers that requires positive inter-dependence (a sense of sink or swim together), individual accountability (each of us has to contribute and learn), interpersonal skills (communication, trust, leadership, decision making, and conflict resolution), face-to-face promotive interaction, and processing (reflecting on how well the team is functioning and how to function even better).

Think-Pair-Share

- The instructor poses a question or topic, preferable one demanding analysis, evaluation, or synthesis, and gives a person about a minute to think through an appropriate response. This “think-time” can also be spent writing.
- One person then turns to a partner and share their responses.
- During the third step, a person’s responses can be shared within a four-person learning team, within a larger group, or with an entire health team or medical class during a follow-up discussion. The caliber of discussion is enhanced by this technique, and all participants have an opportunity to learn by reflection and by verbalization.

Three-Step Interview

Common as a team-building exercise, this structure can also be used also to share information such as hypotheses or reactions to a film or article.

- People form pairs; one person interviews the other.
- People switch roles.
- The pair links with a second pair. This four-member learning team then discusses the information or insights gleaned from the initial paired interviews.

Learning Teams

Members of learning teams, usually composed of four individuals, count off: 1, 2, 3, or 4. The instructor poses a question, usually factual in nature, but requiring some higher order thinking skills. People discuss the question, making certain that every group member knows the agreed upon answer. The instructor calls a specific number and the team members originally designated that number during the count off respond as group spokespersons. Because no one knows which number the leader will call, all team members have a vested interest in understanding the appropriate response. The verbalization and the peer coaching helps all learners become actively involved with the material.

Simple Jigsaw

The facilitator divides an assignment or topic into four parts with all people from each Learning Team volunteering to become “experts” on one of the parts. Expert Teams then work together to master their fourth of the material and also to discover the best way to help others learn it. All experts then reassemble in their home Learning Teams where they teach the other group members.

Collaborative Visual Mapping

Using visual cognitive maps as a collaborative tool for thinking and understanding concepts, ideas and frames of reference.

Building Community • Team Builders • Getting To Know You

Mingle

The group mingles around, casually talking to each other. As they continue mingling, you call out a name of a category, like pets. The players then have to find other people who have that in common with them. Other categories you can try are: someone with the same number of brothers and sisters as you, someone with the same color eyes as you, someone with one of your hobbies. Let one of the players take your place and be the leader who can call out the categories.

People to People

Everybody mingles around, greeting one another normally (thus the title “People to People”). You, as the leader, stop movement by proclaiming “elbow to elbow!” or “knee to ear!” The group must form whatever configuration you say by finding someone to touch elbows with or a knee to put an ear on. When you say “people to people,” the mingling and greeting begins again. The game becomes more creative when you announce animal configurations, like “Elephant to elephant!” or “Snake to snake!” or “Alien to alien!” These can lead to “Trunk to trunk!” and “Tail to tail!”

In Common • Commonalities

Participants face the inside of the circle on their individual spots. One person (start with the lead facilitator modeling several times, then each person will do it once) will state something true about themselves. An example might be “I have taken ballet lessons.” Then everyone who has this “In Common” with the person who stated “I have...” will leave their spots and trade with someone else. This is followed by another person sharing something true about themselves. Then everyone who has this “In Common” with the person who stated “I have...” will leave their spots and trade with someone else.

I Love My Neighbor

Participants face the inside of the circle on their individual spots, except for one person, for example Ashenafi, who is “It” and stands in the middle. Ashenafi starts by saying “I love my neighbor who...,” finishing with a characteristic or description, such as, “I love my neighbor who has an older brother.” Then all the participants to whom this is true leave their spots and trade with someone else. Ashenafi then scrambles for the open spaces, and whoever is left without a seat is the new “It” and must begin again saying “I love my neighbor who...” Each person who is “It” is not allowed to repeat any of the other things previous “Its” have said.

Trust

Participants are in pairs. They will connect with hands (you could also do it with elbows, fingers, etc.). One person will close their eyes and the leader will keep their eyes open. They will then start walking together. It is the responsibility of the leader with the eyes open to lead the other person who is trusting them on a safe path while they are walking around. Initially do for short segments (e.g. 30 seconds), then have the pairs switch who is the leader.

Collegial Coaching: Medical Professionals Coaching Medical Professionals

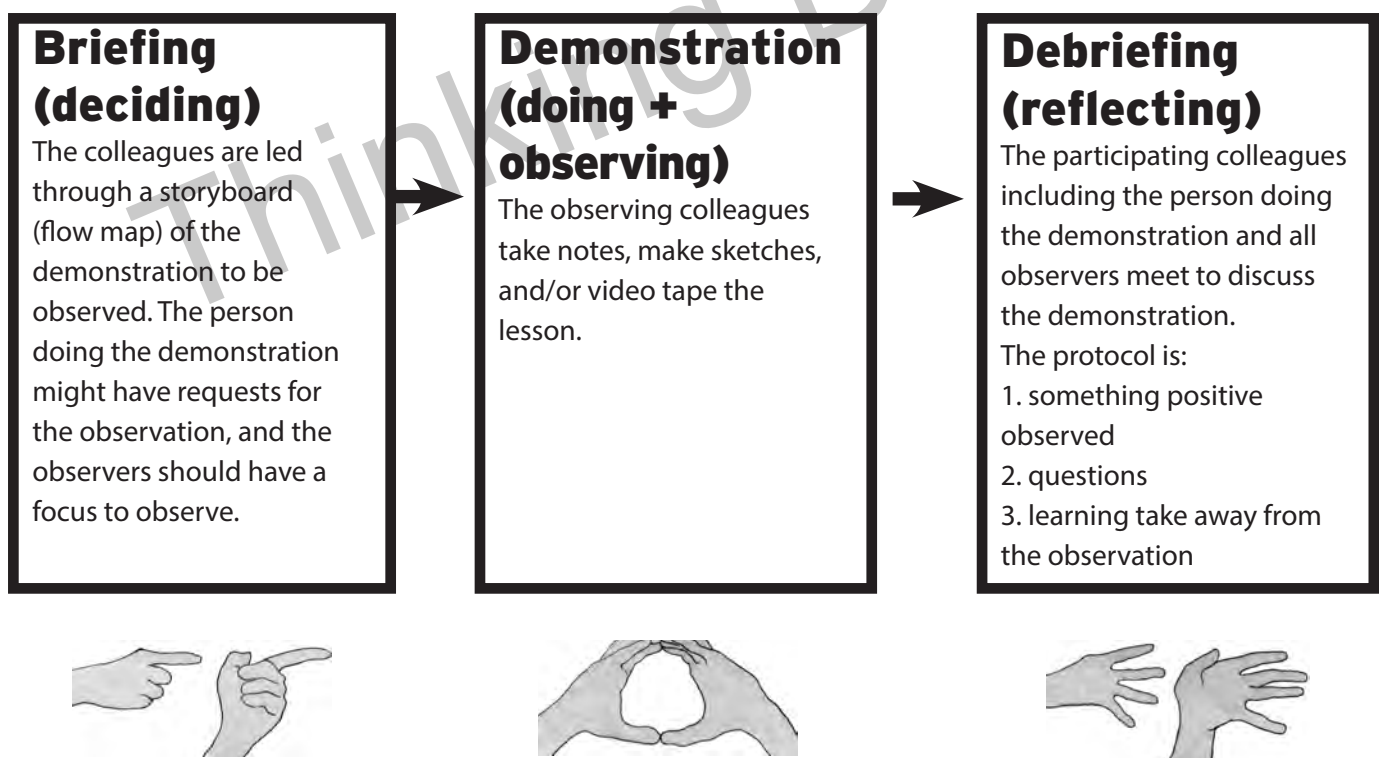
The Collegial Coaching Medical Professionals model focuses on professional colleagues regularly observing each other to learn, understand, and improve their methodology (demonstrations, procedures and practice with patients) and/or pedagogy (teaching methods with medical college faculty). This model works best in groups of three professional colleagues with one colleague demonstrating a method while two other colleagues observe. The observed methods are generally in the 15-30 minute range to provide a focus on particular methods. The model includes a briefing, demonstration, and debriefing.

This model is a multi-directional process: everyone has gifts and skills to share and learn from one another. This differentiated process allows everyone to progress at a rate consistent with their skills. The model is an ongoing process for both new and experienced medical professionals.

Systems Model: This model is equally effective with administrators coaching administrators; facilitators coaching facilitators, medical faculty coaching medical faculty, support staff coaching support staff.

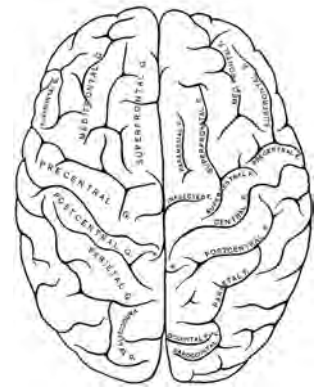
Ongoing Development: Medical Professionals regularly participant with the Collegial Coaching model throughout the school year.

Process



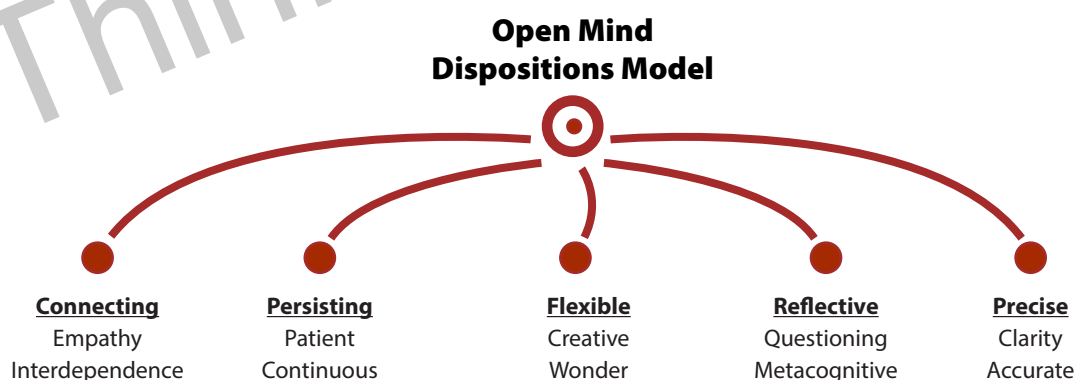
Dispositions for Mindfulness Pathway and the Open Mind Model

There are many different approaches to teaching for, of and about dispositions. Guy Claxton's identifies eight broad competencies: curious, courageous, exploratory, experimentation, imaginative, disciplined, social, and reflective. He suggests leaders should encourage these broad dispositions in order to engage powerful learners. Here is another list: Angela Maier's selection of broad areas for a school to use that she calls *Habitudes*: imagination, curiosity, self-awareness, perseverance, courage, passion, and adaptability. The Costa-Kallick list of 16 *habits of mind* are used as reference points in classrooms in many schools. Many Thinking Schools have used the 16 Habits of Mind across their classrooms.



As our work has evolved, we have become more aware of the importance of participant-centered models for thinking, rather than lists of processes, dispositions, or *skills*. We have identified some key criteria we use for introducing a model of thinking to people that guides us to this question: Is the model fundamental, developmental, intuitive, teachable, transferable, and integrated?

In a nutshell the important question is this: is the model *people friendly*? With this in mind, we created a synthesis model of dispositions based on the Costa-Kallick list of dispositions, Claxton's Key Competencies, and the Habitudes work. We called this synthesis the Open Mind model, as ultimately it is about keeping one's own mind reflective about internal dispositions and actions, while remaining open to other ways in which people are thinking and acting.



Dispositions for Mindfulness Pathway and the Open Mind Model

Open Minds Model

Within our view of offering participant centered models, we have consolidated all of these many dispositions into 5 key ways of developing and sustaining an Open Mind. Here is a Thinking Point pattern showing how we grouped dispositions together. We also use simpler terminology that is easy to remember for people of any age. Here is a summary:

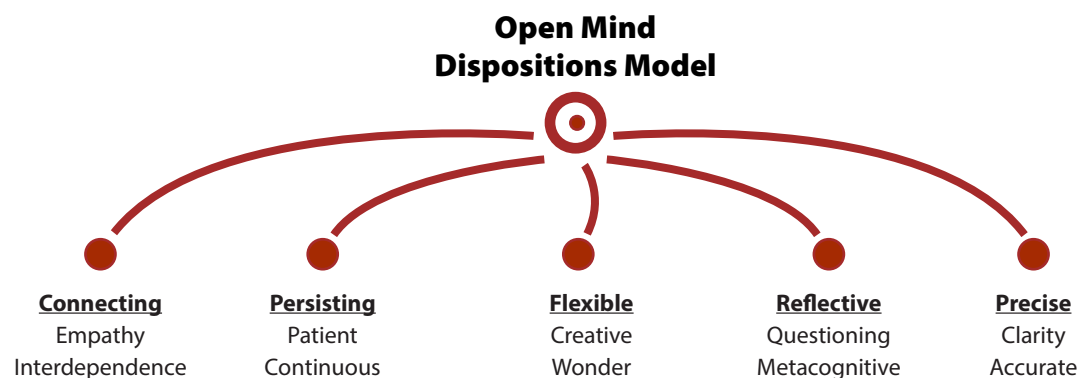
Connecting is keeping an open mind to how we “connect” with other people as well as with ideas. Connecting includes looking for interdependencies between people, including the development of empathy. It also means remaining open minded while connecting prior knowledge to new information.

Persisting is keeping an open mind by not giving up when faced with a difficult or long term problem or project. To persist is to engage patiently in tasks as well as staying open to new learning, rather than remaining stuck on your ideas.

Flexibility is keeping an open mind to different ways of seeing a problem and having a understanding of the generative, creative dimension of thinking, problem solving, and decisions with future effects. It is also meaning being open minded to a world that is ambiguous and full of unexpected events.

Reflecting is keeping an open mind to questioning and investigating your thinking. Metacognition involves looking at what you are thinking as well as how you are thinking. For example, a person may recognize that he or she is thinking about eating an apple (what) and also see that he or she is thinking using causes and effects reason about eating an apple (how)!

Precision is keeping an open mind about focusing while also being as accurate as possible when solving problems or completing work. This disposition is also about people being able to do systematic searches while drawing upon the environment around them.



Training Methodology: Developing a Thinking Environment

Thinking Environments is an awareness, understanding and a process focused upon the design, interface and impact with the environment of the physical work and learning space. The healthcare professional and medical educator's decisions — with intentionality — impact the organization's and learning environments. The decisions are crucial to the quality outcomes of the whole organization.

In the research about learning and the physical environment, three points stand out:

- Physical environments influence how we feel, hear and see. Those factors, in turn, influence cognitive and affective performance.
- Some variables exert a much greater influence on the professional's achievement than others.
- Better awareness, smarter planning and simple changes can be made in every environment to improve communicating and learning.

The purpose of Thinking Environments professional development is for developing an appreciation and understanding of the physical environment's impact while having practical interventions that can elevate the learning potential of the whole organization and learning community. Thinking Environments is a process of thinking through the development of specific elements that impact the learning environment. The goal is to understand the approach, outcomes and reflectively develop pathways of action that focus on mastery with environment impact.

Our Process

The approach and process recognize three key elements in regards to what, where, how and when they are used:

- **Materials:** the use and choice of natural and recycled materials
- **Objects:** the design and human interface with furniture, lighting and other objects
- **People:** how we as people interface with the environment including space, timing, communication and collaboration

The above elements recognize the focus of using our 'place in space' in regards to local assets and intentionality respectful of local culture.



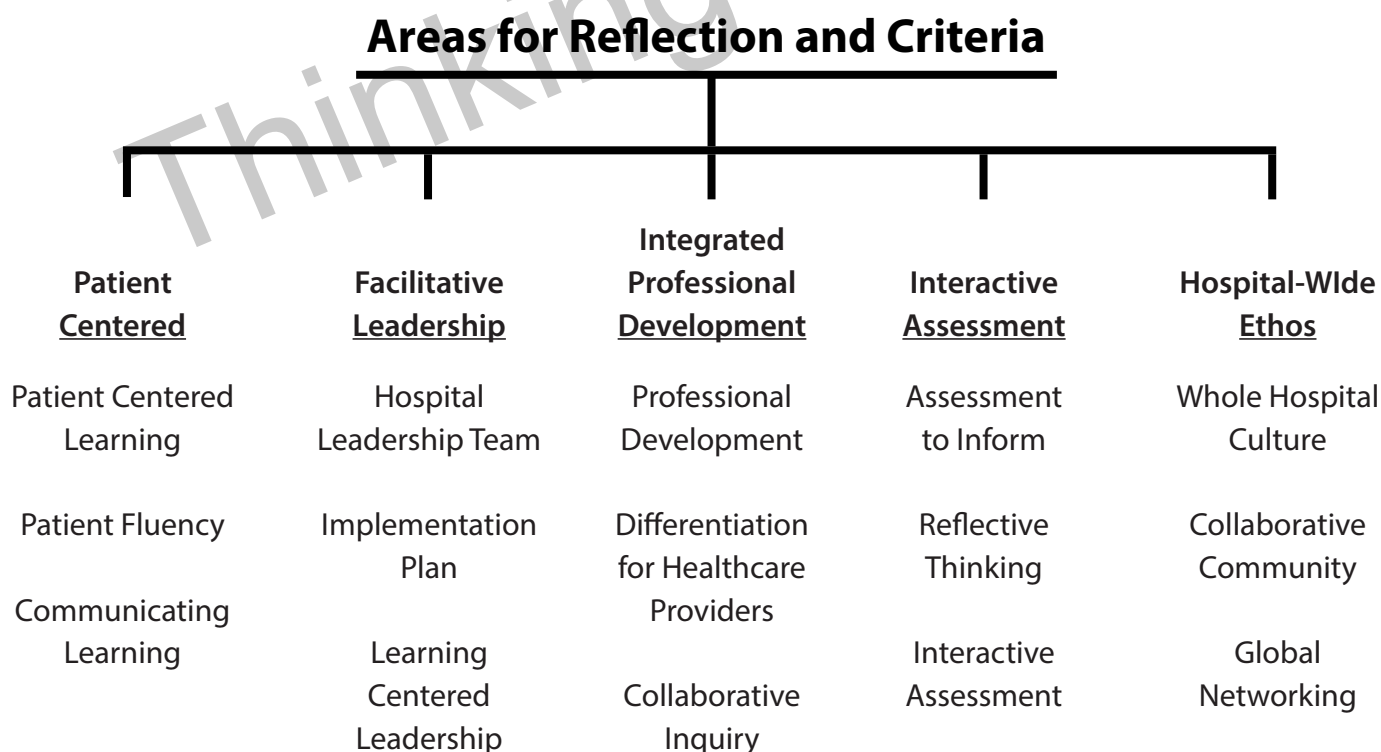
Certification and Accreditation

All participants will receive certification through participation of the various trainings. This will acknowledge their involvement with professional development of, for and about the hospital learning the methods, skills and approach of Thinking Design.

The various hospital divisions (e.g. emergency room) will be part of the Areas for Reflection and Criteria Accreditation. This process will be facilitated by the university to assure the whole division, whole hospital and whole medical college are developing into a 'Thinking Design' organization that best provides for the patients and greater community. St. Paul's Medical University will be a model of this process with a goal of becoming the accrediting institution in Ethiopia both regionally and country-wide.

The Five Areas for Reflection and Fifteen Criteria

The St. Paul's medical community will focus on five areas for reflection as they develop and think about their own transformative design for the journey towards becoming a Thinking Design organization that is Patient Centered Thinking (and student centered with the medical college), Facilitative Leadership, Integrated Professional Learning, Interactive Assessment, and Hospital-Wide Ethos. There are 15 basic criteria and related reflective questions associated with these five areas that are used by hospitals and/or medical colleges to engage in a process of self-study to assess their progress toward becoming a thinking design hospital and medical college. The same 15 criteria and reflective questions are used by an accrediting partner to grant accreditation to divisions in the hospital, the whole hospital, and the medical college that have met their own vision and objectives as set forth in their transformative design.



Guiding Questions for Implementation

Who should participate?

- faculty? professional staff? support staff? students? hospital staff?

How do we build, grow and sustain the Thinking Design model?

How do we assess outcomes of the Thinking Design model?

- successes?
- needs?
- as a reflective process?

We will develop a set of questions that are asked prior to training, after training, during the emerging use of the tools, during the process, and so forth --- action research

We will use of video interviews to capture the thinking which could be done in small groups.

What is a patient-centered (student centered in the medical college) model?

- look like?
- attributes of it happening?

How do we support healthcare professionals and healthcare faculty effectively changing from a medical-centered model to a patient centered approach?

How will the healthcare leadership, faculty, support staff and medical students benefit from the use of:

- Visual Tools (Thinking Maps)?
- Questioning for Inquiry (effectively and expertly)?
- understanding dispositions?
- and knowing methods for collaborative learning?
- thinking environments?

The frame of reference is important with visual mapping. It is important to understand we all have a frame of reference.

- Why is it important to understand each other's 'frame of reference' (perspective)?
- What tools do we use to understand our individual and collective 'frames of reference'?

The use of visual tools and inquiry can be used as a means of assessment of our practices.

Training Implementation Outline

Introduction Training • 1 Day

The Stage 1 Introductory Training is a participant centered one day workshop for learning the Thinking Design systems approach.

Reflective Thinking:
*The Most Important
Asset and Resource
for Life's Journey*

1 – **Knowing Yourself: My Experiences, Skills, Assets, Vision, Potential**

- Individual Perspectives
- Learning About Skills and Gifts of Each Other
- Methods that Support and Sustain Organizational Success

2 – **Thinking about Thinking**

- What does a Thinking Organization Look Like?
- For, Of and About Thinking
- A Common “Language” for Models of Excellence, creating thoughtful patterns and developing a communicating organization

3 – **Exploring Pathways: The Tools to Explore and Expand Upon Life**

- A Pathway In Depth:
 - Thinking Maps® - a Visual Language to Organize Thinking
- Connecting the Pathways:
 - Collaborative Networks: Building Community, Collaborative Methods, Collegial Coaching
 - Developing Dispositions for Understanding and Using Strengths
 - Questioning for Inquiry: The Reflective Action Process
 - Designing Thinking Environments

4 – **Planning the Journey - Thinking Design Putting It Together**

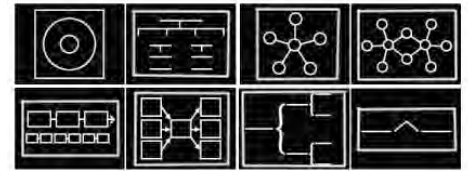
- Brainstorming Ideas
- Organizing Ideas
- Sequencing the Journey
- Sustaining
- Reflective Understanding

Visual Mapping • Frame of Reference

Perspective, Point of View

The Frame of Reference is the lens through which we view things including:

- How do you know what you know?
- Where did you get your information?
- Who are your influences?
- What are your experiences

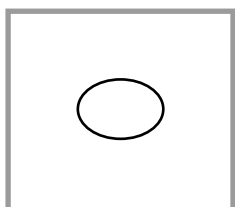


Thinking Maps®

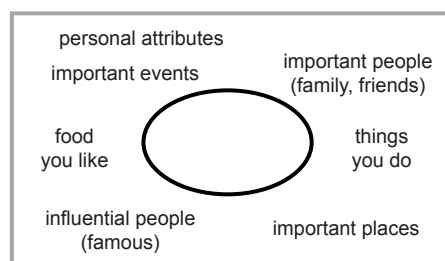
Thinking Design

My Frame: Frame of Reference

1 Use the space above and draw a circle and frame. This process can also be done in sand with a stick.



2 Write and/or draw things that describe things about your life. Your frame of reference including important people, events, places, attributes and things about you.



3 Pair with another person to share your personal frames.

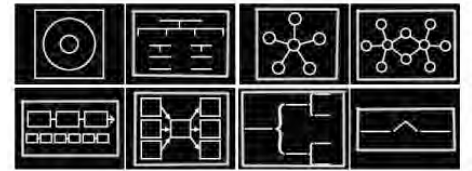


whole group

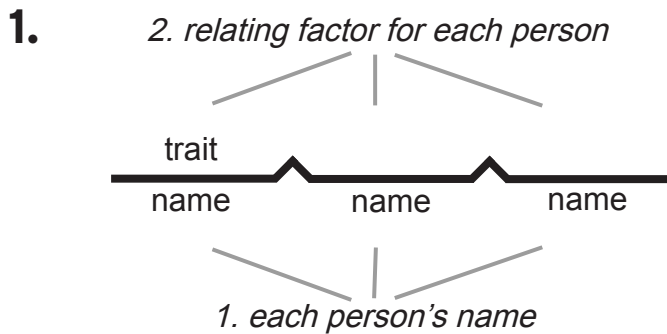


Visual Mapping - Connecting and Learning Of, For and About Each Other

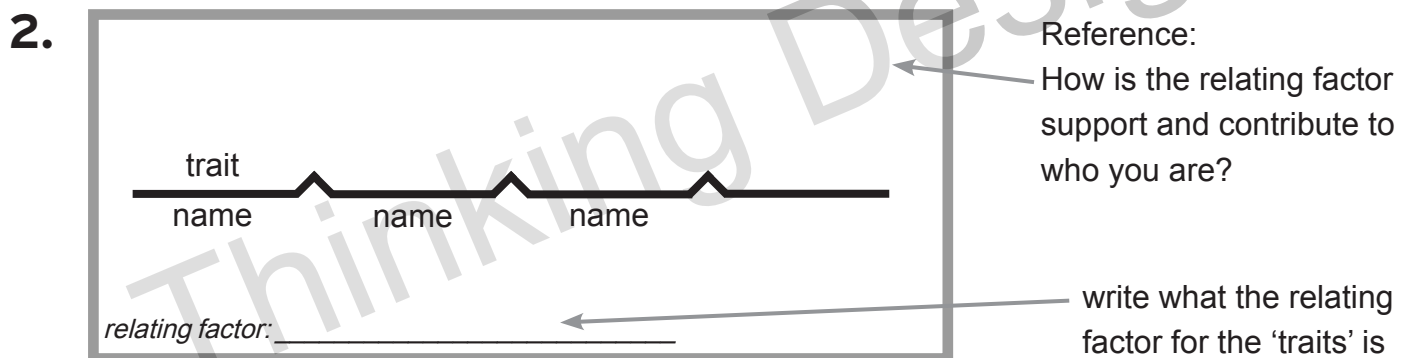
We will continue with a visual mapping process called a Bridge Map (Thinking Maps®) with a Frame of Reference. This process will support us in being reflective of our personal experiences along with others in our small group.



Thinking Maps®



- use a A4, or similar blank paper
- construct a Bridge Map as modeled
- use a pen or marking pen
- use words (any language), drawings and/or photos
- write each person's name (bottom)
- write a corresponding factor for each person that 'relates to one another'



3. After you and small group have completed your Bridge Map with the frame of references, gather with another small group and share your ideas by asking:

What are some of the similar and different bits of information in the maps?

We will then share the most important information to the collaborating small groups.

For, Of and About Thinking

A thinking healthcare organization is one of a medical community in which all members share a common commitment to giving regular, careful thought to everything that takes place. This will involve learning how to think reflectively, critically and creatively, and to employ these skills and techniques in the co-construction of meaningful implementation and practices. Benefits will also be shown by the ways in which all members of the community interact and show consideration for each other, and in the positive psychological well-being of both patients and hospital staff, the medical college students, and the medical college faculty.

Learning FOR Thinking

Creating organization-wide and department conditions that support thinking development.

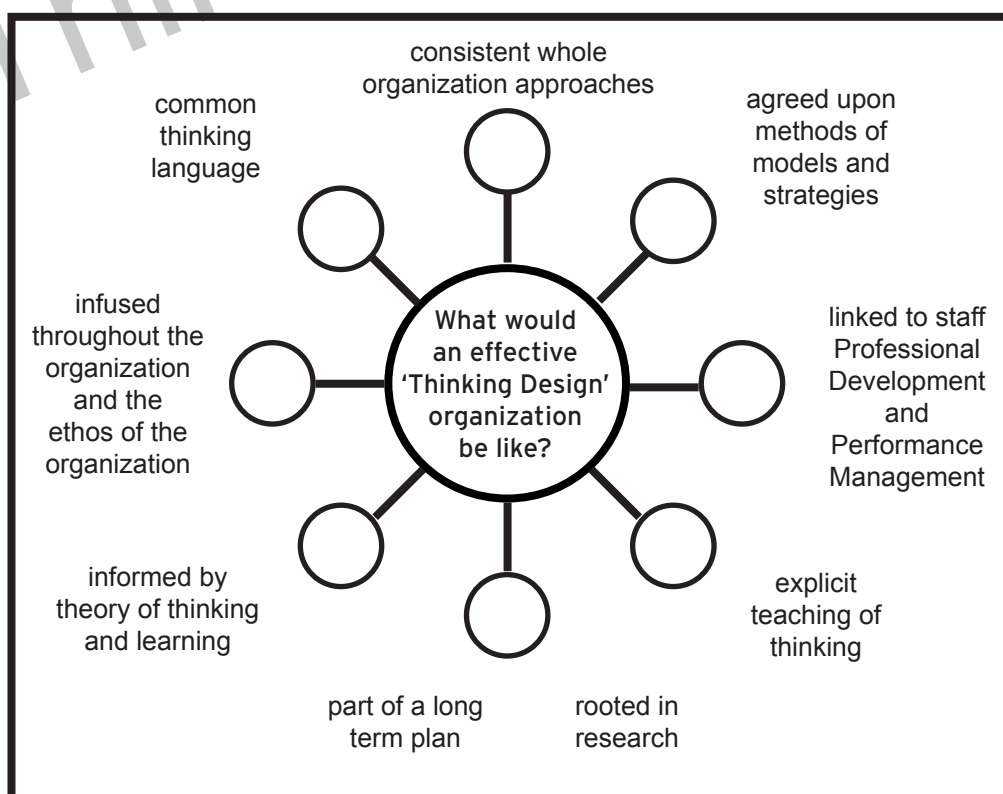
Learning OF Thinking

Providing all leadership, professional and support staff in the skills and strategies of thinking directly and/or implementing thinking processes.

Learning ABOUT Thinking

Helping the whole staff become aware of their own and others' thinking processes and use in real-life problem solving situations.

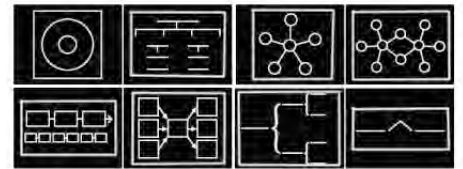
Each of these broad areas of development can happen at the same time while a focus may be on developing a sequential plan. If you had to prioritize a starting point, which learning area would YOU start with: FOR, OF or ABOUT? What would come second and third?



Circle Map

Defining in Context • Brainstorming

The Circle Map is used for brainstorming ideas and thoughts about a topic or a concept.

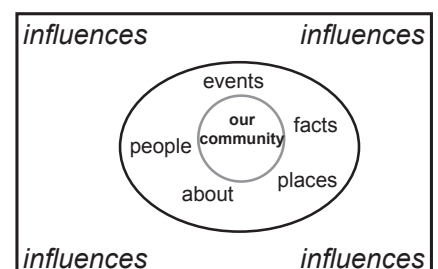


Thinking Maps®

Thinking Design

Our Community: Circle Map

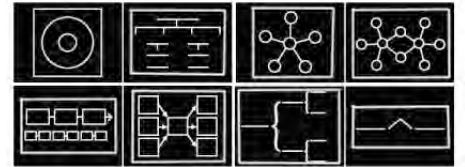
- 1 Write your name and draw a circle around your community name.
- ➔ 2 Write and/or draw things about your community around the circle with your community name.
- ➔ 3 Draw a circle around your information.
- ➔ 4 Draw a frame of reference around your community map. Write influential people, places and events of your organization in the frame.



Bubble Map

Describing

The Bubble Map is for describing using adjectives; Identifying the sensory, logical and emotional qualities of any topic or concept.



Thinking Maps®

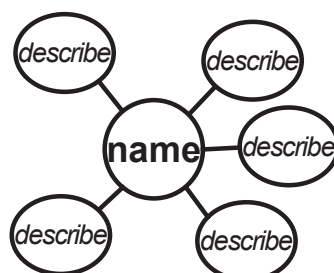
Thinking Design

Our Community: Bubble Map

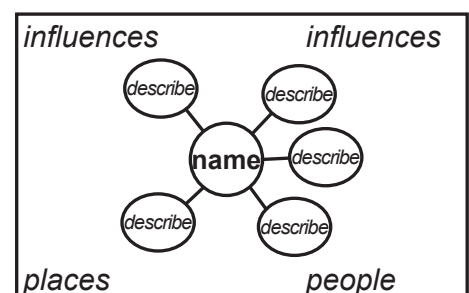
1 Write your community name and draw a circle around our community name.



2 Write and/or draw things that are descriptive words about your community in the bubbles around our community name.



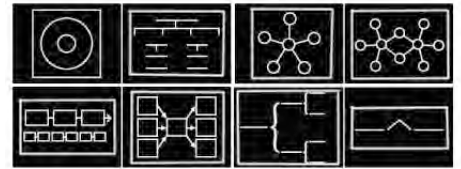
3 Add a frame of reference around your map. Write and/or draw influential people, places and events of our community in the frame.



Double Bubble Map

Compare and Contrast

The Double Bubble Map is used for comparing and contrasting any two things.



Thinking Maps®

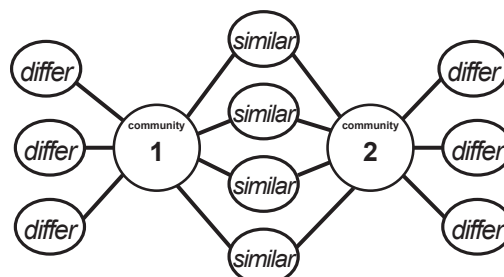
Thinking Design

Our Community: Double Bubble Map

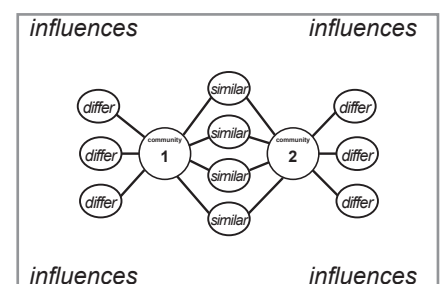
1 Pair with another colleague, then write our community and another community with a circle around each of your names (or draw your faces with a circle around them).



2 Write and/or draw similarities in the middle, and identify how you differ with one another on the outside bubbles.



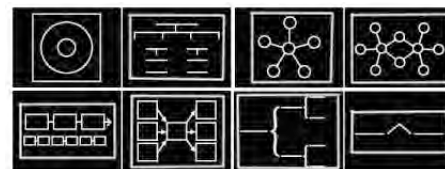
3 Draw a frame of reference around your community map. Write influential people, places and events for each community in the frame.



Tree Map

Classification

The Tree Map is for classifying or sorting things and ideas into categories or groups. Under each category (group) there is a list of details.



Thinking Maps®

Thinking Design

Our Community: Tree Map

1 Write our community's Important Things on the top line.

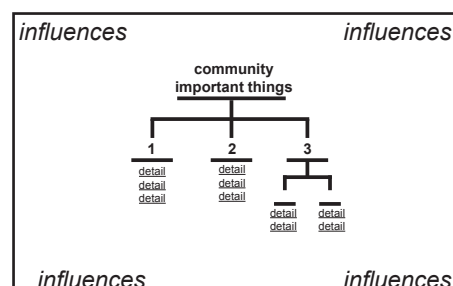
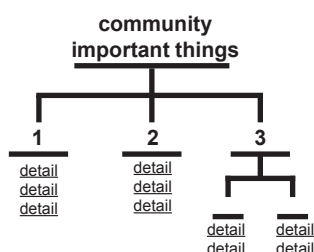


2 Think of 2, 3 or 4 categories to classify important things about your community. Write the name of these categories on the next lines. Under each category, list examples of each favorite thing within that group.



3 Draw a frame of reference around your map. Write influential people, places and events for your community in the frame.

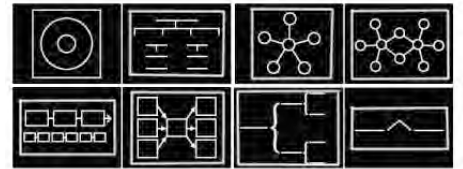
community important things



Brace Map

Whole Part Relationship

The Brace Map is for analyzing the component parts of physical objects; identifying the spatial relationship of parts to the whole or “structural analysis.”



Thinking Maps®

Thinking Design

Our Community: Brace Map

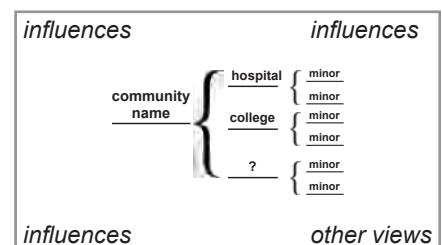
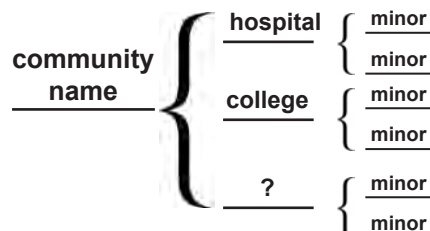
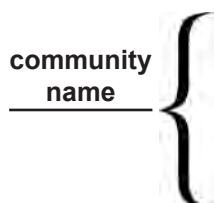
1 Write ‘our community name’ on the line.



2 Write or draw pictures of the three physical parts of ‘our community’. Then write minor parts for each major part.



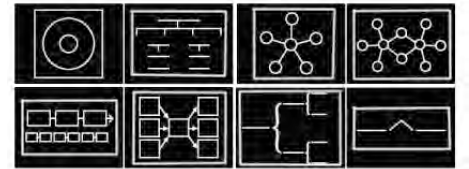
3 Draw a frame of reference around your map. Write or draw what is influencing your community and/or other peoples’ views in the frame.



Flow Map

Sequence

The Flow Map is for sequencing the stages and sub-stages of an event including identifying the steps in a process and ordering information.



Thinking Maps®

Thinking Design

Our Community: Flow Map

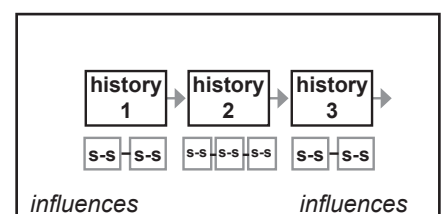
1 Write and/or draw the history of your community. Write 3-6 historical events and sequence them in order.



2 For each step write any of the substages (s-s) for each of the historical events.



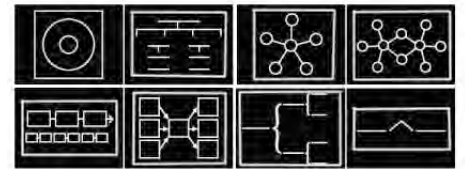
3 Draw a frame of reference around your Flow Map. In the frame write or draw who and/or what influences your community.



Multi-Flow Map

Cause and Effect

The Multi-Flow Map is used for identifying the causes and effects of an event.



Thinking Maps®

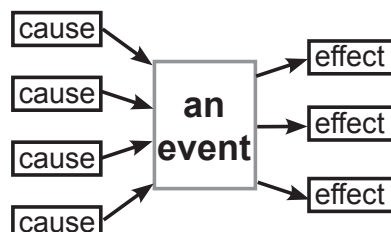
Thinking Design

Our Community: Multi-Flow Map

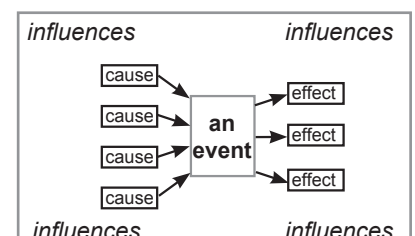
1 Write and/or draw a community event or procedure that happened or will happen. Draw a rectangle around it.



2 In the left boxes write or draw 'causes' of the event. On the right boxes write the 'effects' of the event.



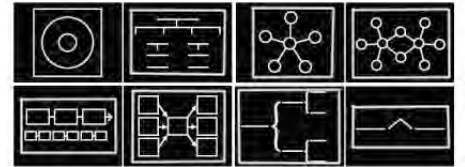
3 Draw a frame of reference around the map and write or draw the experiences of different people involved with the event.



Bridge Map

Classification

The Bridge Map is used for identifying similarities between relationships and creating analogies.



Thinking Maps®

Thinking Design

Our Community: Bridge Map

1 Write or draw names of key people in the community on the bottom. Add a key attribute or descriptive for each person.



2 Write what the 'relating factor' (r-f) is for all the key people in regards to their common attributes.

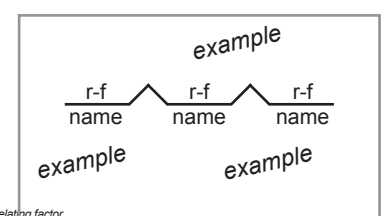


3 Draw a frame of reference around your map. Write or draw examples for each person's relating factor attributes.

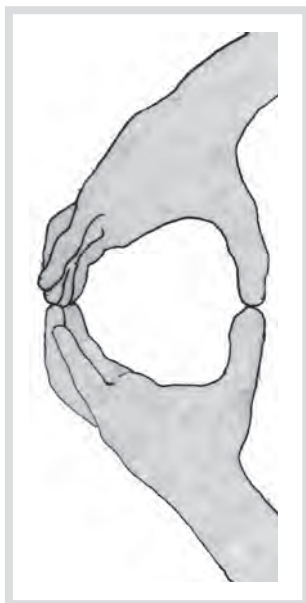
r-f r-f r-f
name name name

r-f r-f r-f
name name name

relating factor _____



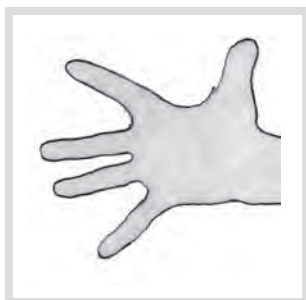
circle map



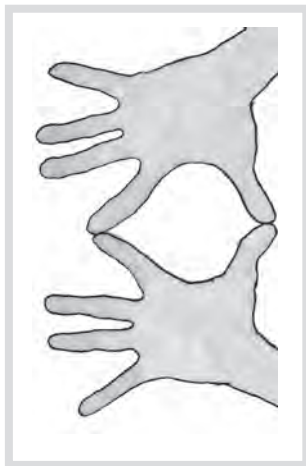
tree map



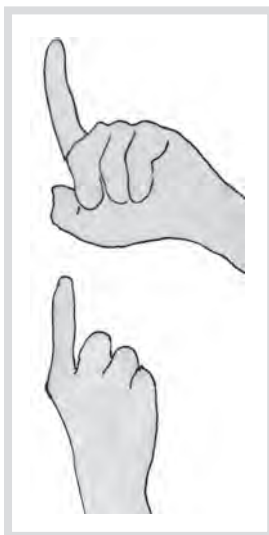
bubble map



double bubble map



flow map



multi-flow map



brace map



bridge map
relating factor _____



Thinking Maps®: A Language for Leadership
A Language for Leadership is designed to meet the needs of multiple audiences. It can be used by leaders and leadership teams who want to strengthen and deepen their current Thinking Maps® implementation, and assist those who want to expand their use of these tools into leadership practices. This guide and associated professional development can also serve as an entry point for schools to begin the process of implementing Thinking Maps®.



Visual Tools for Transforming Information Into Knowledge - Second Edition

By David Hyerle, ©2009, Corwin Press

Visual tools have the unique capacity to communicate rich patterns of thinking and help students take control of their own learning. This second edition of A Field Guide to Using Visual Tools shows teachers of all grades and disciplines how to use these tools to improve instruction and generate significant positive changes in students' cognitive development and classroom performance.

Expert David Hyerle describes three basic types of visual tools: brainstorming webs that nurture creativity, graphic organizers that build analytical skills and help process specific content, and concept maps that promote cognitive development and critical thinking. Updated with new research and applications for three kinds of Thinking Maps®.