

Health Promotion Practice

Using a Systems Approach to Achieve Impact and Sustain Results

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Abstract:	Successful implementation of the Food & Fitness initiative depended on community partners transforming complex systems to support healthy eating and active living, while addressing health equity. In order to apply systems thinking in diverse communities and in partnership with stakeholders who had differing levels of education and experience, we assembled a clear conceptual framework, an effective toolkit, and multiple opportunities to build capacity. This article describes the ways that we deployed systems thinking within the initiative, both collectively and at individual sites, and what we learned. Community partners offer advice to others who seek to transform complex systems.

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1 Transforming systems to support healthy eating and active living requires a
2 comprehensive approach that considers the complex relationships among system components.
3 Because achieving the goals of the Food & Fitness Initiative (F&F) required large-scale systems
4 change at many levels, the W. K. Kellogg Foundation (WKKF) designed the initiative using a
5 systems thinking approach. They engaged people with divergent experience, expertise, and
6 perspectives. They developed an initiative to create alignment of purpose, while also respecting
7 the unique culture, context, and assets of each community. Most importantly, the design ensured
8 that F&F work would be led by and owned by each community.

9 A systems thinking approach is essential to make progress on a “wicked mess” (Ackoff,
10 1974), an issue which includes both social complexity and significant time delays between taking
11 an action and seeing intended and unintended effects of that action. Clearly the Food & Fitness
12 Initiative addressed a wicked mess and called for applying a systems thinking approach.

13 Systems thinking requires “moving from observing events or data, to identifying
14 patterns of behavior over time, to surfacing the underlying structures that drive those events
15 and patterns” (Goodman, 2018). Waters Foundation describes key systems thinking capacities:

16 Systems thinking capabilities include the practices of seeking to understand a system as a
17 whole, focusing on causal relationships among parts of a system (rather than on the parts
18 themselves), examining the system from multiple perspectives, and using a broad array of
19 tools to design high-leverage interventions for achieving system transformation (Waters
20 Foundation, 2018).

21 Our approach to systems thinking begins with clearly articulating desired outcomes and
22 beliefs about the system that will produce those outcomes. We analyze the current system, its

23 structures, and beliefs that are not serving us well. This deeper understanding is the source of
24 high leverage strategies for moving us from where we are now to where we want to be.

25 The article, “Food & Fitness: Lessons Learned for Funders” (Zurcher, Doctor, & Imig, p.
26 X-X, this issue) in this special issue, describes how program officers engaged diverse people in
27 collective thinking and applied systems thinking to design the overall initiative. While initiative
28 design was essential, it was not sufficient; successful implementation also depended on
29 transforming systems in communities and applying systems thinking at every level. WKKF
30 program officers knew that community members rarely have access to sophisticated cutting-edge
31 development opportunities, whether due to availability or cost.

32 WKKF has a history of incorporating capacity building and technical assistance (TA) into
33 initiatives. This article describes the ways that we deployed systems thinking within the
34 initiative, both collectively and at individual sites, and what we learned. We begin by explaining
35 five theoretical frameworks and one process for systems thinking that we used throughout the
36 initiative. This conceptual grounding is followed by description of the three primary strategies
37 we used to develop grantee systems thinking capacity. The bulk of the article is a detailed
38 exploration of lessons learned from the initiative with advice for others. We provide examples
39 throughout to ground the description.

40 **Building Systems Thinking Capacity in Communities**

41 The field of systems thinking includes a large, and at times complex, set of theories,
42 concepts, and tools. In order to successfully apply systems thinking in diverse communities and
43 in partnership with stakeholders who had differing levels of education and experience, we
44 assembled a clear conceptual framework and effective toolkit. WKKF provided multiple
45 opportunities for community members to develop their systems thinking capacities through

46 training sessions, workshops at annual networking meetings, and technical assistance
47 consultations.

48 **Systems Thinking Frameworks and Processes**

49 We used five key frameworks and a systems mapping process with community and
50 initiative leaders to apply systems thinking to their work in a clear and consistent manner. These
51 frameworks are foundational when applying systems thinking to address societal issues. Figure 1
52 displays the five frameworks, including elements of systems thinking that are critical to address.
53 (Insert Figure 1 here.) Appendix A includes question guides based on the frameworks. The
54 guides helped grantees apply the frameworks to planning and implementation.

55 **Core Theory of Success (CTS).** This causal loop diagram shows that increasing the
56 quality of relationships will cause an increase in the quality of collective thinking, which in turn
57 causes an increase in the quality of collective action, causing an increase in the quality of results,
58 which causes an increase in the quality of relationships. (Kim, 2002b) The “s” on the links
59 shows that a change in one component causes a change in the same direction in the next
60 component, for example an increase in the quality of collective action causes an increase in the
61 quality of results. However, “same” does not always mean positive. CTS can be either a virtuous
62 or a vicious cycle. A decrease in the quality of relationships will cause a decrease in the quality
63 of collective thinking, which will cause a decrease in quality of action, and a decrease in the
64 quality of results, and then a decrease in the quality of relationships, and so on. CTS emphasizes
65 the centrality of relationships for achieving and sustaining results, and also illustrates the
66 downward spiral negative consequences of deteriorating relationships.

67 **Creative Tension (CTM).** This framework contrasts a creative orientation focused on
68 vision with the reactive nature of reductionist problem solving. Too often communities and

69 organizations work on fixing discrete problems in their current systems, rather than clearly
70 defining the results they want, and transforming or reimagining systems to create that future.
71 CTM illustrates how focusing on a clear, detailed vision of what the community wants to create
72 leads to a generative, energy producing partnership. Current reality in the context of that vision is
73 simply baseline information, not a series of problems to be solved (Kim & Cory, 2014 adapted
74 from Fritz, 1989).

75 **Hierarchy of Choices (HOC).** HOC depicts the relationship among core values,
76 purpose, vision, strategies, tactics, and activities and assures alignment among these factors
77 (Kim, 2002a). Partnerships and organizations that are committed to a compelling purpose,
78 consistently apply a set of core values that define them, and have a clear shared vision for the
79 future they want to create, are more likely to identify strategies, tactics, and activities that will
80 achieve intended results.

81 **Levels of Perspective (LoP).** LoP is useful for understanding a system, including events
82 that are capturing attention, patterns of similar events over time, the systemic structures that
83 produce the patterns, mental models that underlie the system, and the vision that the system is
84 meant to achieve. Our ability to influence the future (leverage) increases at the top levels—
85 systemic structures, mental models, and vision. Events and patterns over time help us detect
86 current systemic structures and monitor progress as we implement strategies. The Vision
87 Deployment Matrix, depicted in Appendix 1, allows groups to translate LoP into a practical
88 planning template that integrates analysis of desired future and current reality in one document
89 (Kim, 2014).

90 **Ladder of Inference (LoI).** LoI illustrates how we form beliefs and assumptions
91 (mental models) by drawing generalizations from experiences. Even when those beliefs and

92 assumptions no longer serve us well, at our peril we continue to use them to filter data and
93 information around us. Instead of learning from new experiences, we tend to reinforce our
94 existing beliefs and assumptions, unless we intentionally reflect on our assumptions and seek
95 alternative explanations. Deep systems change requires reflective examination of our own mental
96 models and understanding diverse perspectives of others (Kim & Cory, 2014)

97 **Causal Loop Diagramming.** Causal loop diagramming is not a model, but rather is a
98 process to clarify thinking about the causal relationships among components of a system. We
99 use the process to create pictures of our mental models about a new or transformed system
100 needed to achieve a vision and to anticipate the possible unintended consequences of our
101 proposed system. Groups can also map the current system in order to understand gaps and
102 overlaps between desired future and current reality, and to formulate strategies for achieving
103 systems change (Senge, 2006). Core Theory of Success is an example of a reinforcing causal
104 loop, where an increase (or decrease) in one causes an increase (or decrease) in the next. David
105 Peter Stroh (2015) provides examples of how community groups have used causal loop
106 diagramming to articulate their thinking and clarify systems.

107 **Primary Strategies for Building Grantee Systems Thinking Capacity**

108 WKKF employed multiple strategies in an effort to infuse systems thinking into grantee
109 sites, as well as the overall initiative. The primary strategies for building capacity included
110 convening initiative leaders during planning, on-site consultations with individual communities,
111 and systems thinking capacity workshops at all Food & Fitness gatherings.

112 Early in the two-year Food & Fitness planning grant period, grantees had two
113 opportunities to be introduced to basic systems thinking frameworks. At the first F&F grantee
114 meeting in June of 2007, representatives from nine communities collaborated to develop a deeper

115 shared vision and an understanding of why quality of relationships would be foundational to their
116 work. In October of 2007, WKKF offered project leadership teams a two-day introduction to
117 applied systems thinking.

118 Throughout F&F funding, grantees continued to have opportunities to build their systems
119 thinking capacity and to request TA consultations in their communities. Systems thinking TA
120 providers designed and facilitated grantee work sessions, and provided support and guidance via
121 phone and email. These consultations helped community teams apply the frameworks to
122 ongoing implementation of their strategies.

123 Finally, throughout the nine years of F&F, sessions on specific tools and frameworks at
124 both grantee networking meetings and larger Food and Community gatherings extended those
125 capacities to additional community members. Workshops focused on applying systems thinking
126 in communities.

127 **What We Learned and Advice for Others**

128 To document grantee experiences we convened structured conversations with F&F
129 community members and TA providers during the Food & Fitness Capstone networking
130 conference and conducted in-depth phone interviews with another group of community
131 members. Appendix B includes the questions for both of these data gathering methods.

132 F&F Capstone Conference participants included 24 grassroots and institutional members
133 of the six final grantee communities, 10 technical assistance providers, and four WKKF staff.
134 We structured a 75-minute conversation focused on systems transformation and what
135 participants had learned about using a systems thinking approach. Each conversation group
136 included six community members, one from each site and one technical assistance provider, who
137 took contemporaneous notes on a laptop using a simple question template but did not participate

138 substantively in the conversation. Remaining TA providers met in a separate group. WKKF staff
139 did not participate in these conversations in order to avoid influencing discussion. The questions
140 used in these conversations focused on using Hierarchy of Choices to achieve systems change
141 outcomes and applying Core Theory of Success to engage grassroots adults and youth as leaders.

142 Based on those conversations we constructed a set of questions for deepening our
143 understanding of what grantees learned and how they applied systems thinking. One person
144 conducted phone interviews with twelve individuals ranging from grassroots community
145 members to local evaluators and project directors. Our purpose was to understand the
146 application of systems thinking from the perspective of community members and those working
147 with them. Project Directors from three sites that used systems thinking most extensively
148 nominated the twelve individuals for interviews, all of whom had been actively engaged on
149 project leadership teams, but who had not participated in the Capstone Conference. Each
150 nominee received an email invitation to participate in phone interviews. All twelve accepted.

151 The questions for the phone interviews were open-ended and meant to stimulate each
152 participant's thinking. The interviewer captured notes and verbatim quotations on a laptop. The
153 questions probed experience with systems thinking in F&F work, use of frameworks, tools and
154 principles, and advice they have for other communities that consider using a systems thinking
155 approach. Each of the twelve phone interviews lasted approximately one hour.

156 Following the phone conversations, the interviewer looked for common themes among
157 the notes from the conversations. In order for a theme to be labeled a "lesson" it was mentioned
158 by more than half of the participants. Patterns began to emerge in the conversations across
159 participants with diverse roles and across great distances. A second individual, not associated

160 with this work but knowledgeable about systems thinking, reviewed the interview notes and the
161 themes to validate the lessons.

162 **Lessons Learned**

163 Learning from Food & Fitness partnerships can inform communities undertaking systems
164 change work, as well as evaluators and funders. Examples from F&F communities illustrate each
165 lesson.

166 **Relationships are primary.** As illustrated in Core Theory of Success, primacy of
167 relationships is one of the fundamental principles of systems thinking, and was often cited as
168 being critical to the work of Food & Fitness communities. As one project coordinator notes, “It
169 is the primacy of relationships that formed authentic learning communities; providing a strong
170 shared, collaborative (not competitive) approach to achieve our vision and goals. It helped us
171 “hold” the work together.”

172 Project directors and F&F community leadership team members described the significant
173 time and resources they invested in building and sustaining relationships. Grassroots community
174 members partnered with large institutions. Traditional large farmers, new small-scale producers,
175 and local food enterprises were at the table together. These partnerships are deep and have been
176 built and sustained over the nine years of F&F work. As one interviewee explained,
177 “Relationships and managing them is what reduces unintended consequences and accidental
178 adversaries.”

179 The essential element of relationships also poses significant challenges in communities.
180 Whether urban or rural, some relationships tend to be formed person-to-person rather than
181 organization-to-organization. While individual relationships make significant contributions to
182 progress, with staff turnover in an organization those individual relationships end. The result is a

183 need to build a new relationship with another individual, which takes additional time and can
184 slow progress and outcomes. Several interviewees identified the need to shift how relationships
185 are formed, perhaps by building upon individual relationships to form organizational
186 relationships.

187 Examples of successfully creating institutional partnerships are illustrative. When a co-
188 convener left one F&F collaborative to take an unrelated position, the relationship with her very
189 large organization persisted through several other staff members. Another F&F collaborator
190 built a network of relationships, rather than relying on just one person. She had observed that in
191 other work a collaborative had lost relationships when one champion changed organizations.
192 She intentionally began connecting with everyone in the administrative arm of her primary
193 partner organization, in addition to building a relationship with the person who was leading F&F
194 work. “I connect with each of them one-on-one whenever I am in the building.” When the lead
195 person departed suddenly, administrators contacted her to say that they wanted to continue the
196 work and to discuss how that would happen. In Northeast Iowa, schools were a focus but the
197 turnover at all levels in individually-governed districts was a constant challenge causing the
198 initiative to shift focus from relationships with individual champions to institutional school
199 wellness teams.

200 **Community ownership is essential.** Community-based systems change requires
201 grassroots engagement and ownership of the work *by the community*. Several F&F sites
202 stumbled early in the work because they could not effectively negotiate co-ownership of their
203 collaborative among institutions and grassroots community members. At an early networking
204 meeting, some community members asked for a conversation on their own, without staff from
205 their sites or WKKF. The issue they wanted to discuss was a lack of transparency about grant

206 money and how it was being spent. Community members from one site stated that they did not
207 share that issue. They published their budget on a website. Community members at that site
208 knew the salaries of staff members and every budget item; they knew because they were
209 involved in deciding how funds would be allocated and monitoring progress.

210 Community member engagement is essential for sustainability. At its best, community
211 engagement reminds institutions and organizations of the purpose for the work. One interviewee
212 who represented a large organization put it this way:

213 If it had been left up to (my organization), we might have thrown in the towel. At
214 every step of the way, a lot of the time it was (one grassroots community
215 member). He never let us forget why we were doing this. Other residents too
216 would remind us, ‘It’s not about you guys. It’s not about your politics. It is about
217 us.’

218
219 Another interviewee described the importance of engagement this way:

220 Community ownership emerged early on as an important aspect of this. This may
221 not have emerged if we had not been framing these discussions in an equity
222 frame, which matters to the community. It gets right at the social justice aspects.
223 Residents see this as their movement, their initiative. They embraced the theory
224 of change and ran with it.

225 While each community followed its own path, all six of the sites that were funded for
226 nine years eventually built true community ownership of their F&F initiative. Grassroots
227 community members provided leadership for strategic direction, participated in budget decisions,
228 influenced which community organizations provided a home for the work, and partnered with
229 others to implement the work.

230 **Shared vision drives change.** A clear, widely shared vision attracts partners and
231 resources, and aligns action. This concept is central to three frameworks: Creative Tension
232 Model, Hierarchy of Choices, and Levels of Perspective. Commitment to a shared vision is the
233 “strange attractor” that brings together the energy and resources of otherwise disparate groups
234 and individuals (Wheatley, 2006). Participants described how focusing on a compelling vision
235 brought a different energy to the work than focusing on problems. The most successful sites
236 developed shared vision by convening people from diverse lived experiences and organizations
237 to create the vision. One interviewee described the importance of the process:

238 Creating our shared vision was a collaborative and iterative process that took
239 more time than some desired... but it helped galvanize relationships and provided
240 a road map for collective action. Community members could “see their fit.” It
241 was a key step in our journey.

242 Interviewees described returning to the vision throughout the nine years, and using it to guide
243 them when making strategic decisions and shaping their Community Action Plans.

244 In Food & Fitness, as in any system, all components are related to one another. The act
245 of creating shared vision produced an increase in the quality of relationships. Stronger
246 relationships increased commitment to the vision and alignment of actions. Focusing on shared
247 vision provided common ground for conversations and for adopting strategies that otherwise
248 might have been contentious. The shared vision contributed to more effective and resilient
249 relationships. As one person said, “I’m surprised (our organization) wasn’t kicked out of the
250 collaborative long ago. But ultimately our commitment to the vision and the work meant that
251 they wanted us at the table. And we needed to be there.”

252 **Systemic collective thinking results in more robust planning.** While a third of the
253 interviewees had difficulty recalling specific systems thinking frameworks, everyone described
254 the structured conversations and planning processes for which they used the frameworks.
255 Hierarchy of Choices and Levels of Perspective (translated to the Vision Deployment Matrix
256 planning tool) were the basis for the structured conversation designs. The purpose of using the
257 frameworks was to increase the quality of conversation in service of increasing the quality of
258 collective thinking and planning. Examples of interviewee comments include, “We moved from
259 surface exchanges about activities to rich conversations focused on systems change.” Systems
260 thinking capacities “permanently changed the way we think.” “Using systems thinking helped us
261 understand the larger systems, who could actually influence the changes we wanted, and the
262 relationships we needed to cultivate to make policy changes.”

263 The most significant application of systems thinking was in developing Community
264 Action Plans (CAPs). Interviewees described how systems thinking helped them set the
265 parameters for their work and stay focused on the future they want to create. One site created a
266 framework they jokingly call the “monster planning tool” as a way to ensure a systems
267 perspective is a part of all decisions. Several participants described how they use it. “I use it
268 every day to help make decisions.” “The action plan permeates everything we do.” “The
269 monster planning tool keeps us on track by giving us a picture of our systems approach and how
270 indicators are changing over time.”

271 **Systems thinking changes evaluation.** One surprise is the extent to which using a
272 systems thinking approach changed the relationship of communities to data, and changed the
273 way local evaluators approached their work. This change is evidence of the deep integration of
274 systems thinking into Food & Fitness. Levels of Perspective (LoP) and the Vision Deployment

275 Matrix (LoP) provided the impetus for integrating data and assessment as continuous feedback.

276 But the credit for its deep implementation goes to both local and cross-site evaluators.

277 Multiple sites described how the systems thinking approach engaged community

278 members with data and interpretation of data. One community member said:

279 We own the data. We moved from someone outside collecting information and

280 handing it to us, to developing our own capacities for evaluation by focusing on

281 indicators and patterns over time that we need to monitor to assess our movement

282 toward our vision and assess the effectiveness of our strategies.

283 Another person commented, “We facilitated discussions focused on ‘What will success

284 look like?’ in each of the strategies. This helped us to design an evaluation that would inform

285 the work, not simply collecting data that did not impact our work.”

286 A member of a third community reported, “We developed indicators that we track over

287 time. We aren’t afraid to say that an indicator isn’t serving its intended purpose, to stop using it,

288 and to develop new indicators that better inform our work.”

289 Furthermore, the shift in evaluation is beyond Food & Fitness sites. One local evaluator,

290 associated with a land grant university, noted the broader change toward a community-centered

291 approach to assessing the impact of systems change initiatives. In the evaluator’s words:

292 Food & Fitness helped us recognize that there is an opportunity for evaluation to

293 actually serve people on the ground doing work. We are facilitating the process.

294 We make sure they get the data back in ways that serve them. The team forced

295 things to be useful and practical—not just abstract at the academic level.

296

297 The evaluator goes on to note how they are already using this approach beyond Food & Fitness

298 sites, and how it is influencing other evaluators:

299 This experience has already changed the field of evaluation—and how others
300 regionally, state-wide, and across the country are thinking about their evaluation
301 work. We have had calls from colleagues around the country who read about our
302 evaluation work. They want to know more about the approach. This is all
303 directly attributable to the work in the Food & Fitness site and what we learned
304 from them when we partnered with them.

305 **Slower is faster.** In “Lessons for Funders” (p. X-X, this issue) the concept of slower is
306 faster is explained in terms of its relevance to funders. It also has implications for communities.
307 Every group and every individual interviewed emphasized that systems change in communities
308 takes more time than people are accustomed to. One person explained:

309 Jumping right into building things and doing things isn’t the way to go. Systems
310 thinking helped us get the roots down to be able to make progress. It really
311 worked, but people can get impatient when you don’t get quick results.

312 Another said, “This work takes time! Systems change takes time. Even while making
313 progress, you still need to go deeper.” One person admitted, “We have to spend time making
314 sure everyone is on the same page. I don’t have patience for the time it takes.” Another person,
315 who is deeply steeped in systems thinking, said:

316 The doers want to have events and activities. They look at it as a project. This
317 work is an environmental and cultural change. Systems change takes *time*.

318 Relationships take time to develop. Slower kept us focused on what we wanted to
319 accomplish.

320 **Advice for Communities and Supporters**

321 We do not offer a recipe for other communities to follow, even for those engaged in
322 healthy eating and active living work. Systems change takes place in the context of a particular
323 community or a region. While we do not have “the answers” for other communities, we do have
324 advice about applying the lessons learned that may help community teams and supporters.

325 **Invest in relationships.** Leaders, participants, and supporters must understand that both
326 an initial investment in building relationships and continuous attention to the relationships will
327 be essential to success. Leaders must allocate significant time to relationships since they are key
328 to sustaining commitment and results. Build relationships with organizations that go deeper than
329 one person. Base your relationships on commitment to a common vision or goal. Approach
330 relationships as a learner, not an expert or a knower. The value of lived experience brought by
331 community members cannot be overstated.

332 **Convene the community to shape a shared vision.** Assure that diverse voices are
333 engaged in creating a shared vision. The more the group reflects the true diversity of the
334 community, the more likely the vision will serve all people. In order to engage people,
335 resources—both time and money—must be allocated to convening. For funders the advice is
336 clear, but may be difficult for some to hear. True community-based systems change is most
337 effective when driven by community-created vision. Agencies or initiatives that define the
338 vision and direct the goals and strategies that communities must adopt as a condition of funding
339 will find long-term commitment to systems change more difficult to achieve. As one interviewee
340 said, “People who are passionate about something stick with it. People own it.”

341 **Engage the community at every stage.** One participant summarized widespread advice
342 by paraphrasing Margaret Wheatley (2006), “People will support what they help to create.” A
343 few leaders creating a plan and selling it to the community does not work. Keeping community

344 members actively engaged as leaders and participants, from planning through implementation,
345 requires constant communication and a plan for recruiting and promoting participants into
346 leadership positions. Recruitment is especially important for youth leaders. Consider recruiting
347 people for specific leadership roles, a limited duration, or a place on a work group.

348 Community engagement has never been more important or more difficult. Distractions,
349 complicated lives, multiple demands, and the pace of life in most communities pull people away
350 from collaborative work. One interviewee called community engagement, “the most challenging
351 aspect we currently face.” Leaders must look for ways to support people in sustaining their
352 energy and engagement over the longer haul. Funders can be most helpful by respecting the
353 importance of deep community engagement and providing support for convening and
354 engagement.

355 **Invest in systems thinking capacity for all.** Systems thinking provides a way to create
356 a long-term partnership among people with differing perspectives but who have a commitment to
357 a shared vision. Identify resource people who can structure conversations and facilitate your
358 work using systems thinking. One community member said:

359 Using a systems thinking approach challenged the widely prevalent existing
360 paradigm of demand/protest as the only way to create change in our community.
361 We brought people together who normally won’t sit down together. By changing
362 the approach we achieved better results.

363 Systems thinking frameworks provide structure for conversations about intractable issues.
364 At times applying systems thinking is easier for community residents than for some
365 organizations. Organizations tend to be more focused on “what projects will we do?” As one
366 person said:

367 Staff from organizations and institutions can find it difficult to talk about systems
368 change. Organizations typically are either part of the system or are funded by the
369 system. Once you start thinking in systems, you cannot go back to thinking that
370 working on individual problems will result in significant change.

371 **Choose meaningful and useful indicators.** Create a detailed action plan and define
372 indicators that will help you determine whether your plan is having the intended impact. Choose
373 indicators that are important to your community. Only collect data that have meaning and
374 usefulness to your work, relate to your indicators, and will inform decisions.

375 When searching for an evaluator, choose one who will partner with you to identify and
376 collect data relevant to the indicators that matter to you. Negotiate an agreement about how data
377 will be used and who owns it. We need more evaluators who can collaborate with communities
378 to evaluate systems change. Funders can support community use of data by emulating W.K.
379 Kellogg Foundation's approach of funding both a cross-site evaluation and requiring that funds
380 be allocated within each budget for local evaluation.

381 **Think long-term and conduct pilot projects.** There are no shortcuts to system
382 transformation. Complex issues and ineffective systems did not develop in the recent past.
383 Those systems cannot be transformed in the short-term future. Keep focused on what you intend
384 to create and strategies for getting there.

385 To balance the varying needs of people who are long-range systems thinkers and those
386 who are more suited to immediate action, consider using an approach that was successful in
387 several sites. Initiate planning, develop a shared vision, and while doing more in-depth planning,
388 support selected small pilot projects. For example, mini-grants to two local dairies resulted in
389 both diversifying their businesses and providing products that are sold locally. Another grantee

390 funded a pilot project to transform a local convenience store into a healthy corner store selling
391 fresh vegetables and fruits and other health promoting food. Previously the neighborhood was a
392 food desert.

393 Our advice based on these experiences is to assure that pilot projects, no matter how
394 small, align with future vision. Use intentional learning from the pilots to inform decisions about
395 strategies, adapt the timeline for change, broaden community engagement, and market the
396 initiative. Pilot projects can lead to significant system transformations.

397 **Conclusion**

398 Using a systems thinking approach shifted the focus of Food & Fitness sites from
399 reductionist problem solving to transforming systems in service of equitable access to healthy
400 local food and safe places for physical activity for all children and families. Awareness of health
401 indicators and food system data informed community work. Our systems thinking approach
402 treated data as descriptors of current reality that helped communities detect underlying structures
403 of the existing system and track patterns over time as feedback on their strategies. The words of
404 participants and themes from their conversations tell the story of community members who came
405 together, articulated and committed to a shared vision for the future, worked to deeply
406 understand the system transformations required to achieve equity, implemented strategies to
407 change practices and inform policies, and participated in evaluation to continuously adjust and
408 improve their plans.

409

410 **References**

- 411 Ackoff, R. (1974) *Redesigning the Future: A systems approach to societal problems*. New York,
412 NY: Wiley & Sons.
- 413 Fritz, R. (1989) *The path of least resistance: Learning to become the creative force in your own*
414 *life*. New York, NY: Ballentine.
- 415 Goodman, M. (2018) Systems thinking: What, why, when, where, and how. *The systems thinker*.
416 Retrieved from [https://thesystemsthinker.com/systems-thinking-what-why-when-where-](https://thesystemsthinker.com/systems-thinking-what-why-when-where-and-how/)
417 [and-how/](https://thesystemsthinker.com/systems-thinking-what-why-when-where-and-how/)
- 418 Kim, D.H. (2002a). *Foresight as the central ethic of leadership*. Indianapolis, IN: Greenleaf
419 Center for Servant Leadership.
- 420 Kim, D.H. (2002b). *Organizing for learning: Strategies for knowledge creating and enduring*
421 *change*. Singapore: Cobee Publishing.
- 422 Kim, D.H. and Cory, D. (2014) *It begins here: Organizational learning journey toolkit* (4th ed.).
423 Singapore: Cobee Publishing House.
- 424 Senge, P.M. (2006). *The fifth discipline: The art and practice of the learning organization*
425 (Revised). New York, NY: Doubleday.
- 426 Senge, P.M. (1994) *The fifth discipline fieldbook: Strategies and tools for building a learning*
427 *organization*. New York: Crown Business.
- 428 Stroh, D.P. (2015) *Systems thinking for social change: A practical guide to solving complex*
429 *problems, avoiding unintended consequences, and achieving lasting results*. White River
430 Junction, VT: Chelsea Green Publishing.
- 431 Waters Foundation (2018). Definitions. *Systems thinking*. Retrieved from
432 <http://watersfoundation.org/systems-thinking/definitions/>

433 Wheatley, M.J. (2006). *Leadership and the new science: Discovering order in a chaotic world*
434 (2nd ed.). Oakland, CA: Barrett-Koehler.

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For Peer Review

439 **Figures**

440

441

Figure 1

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Systems Thinking Frameworks

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(See PowerPoint file)

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For Peer Review

Figure 1a.

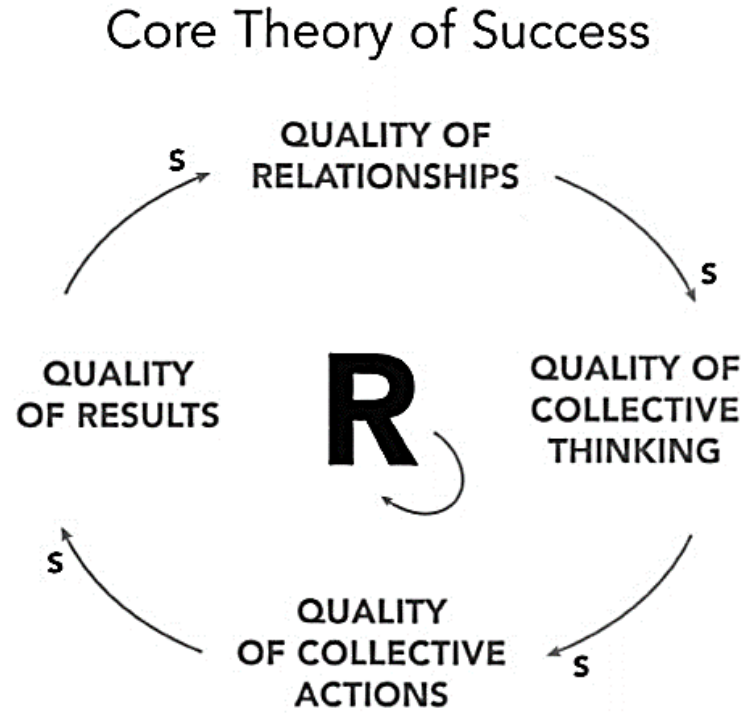


Figure 1b.

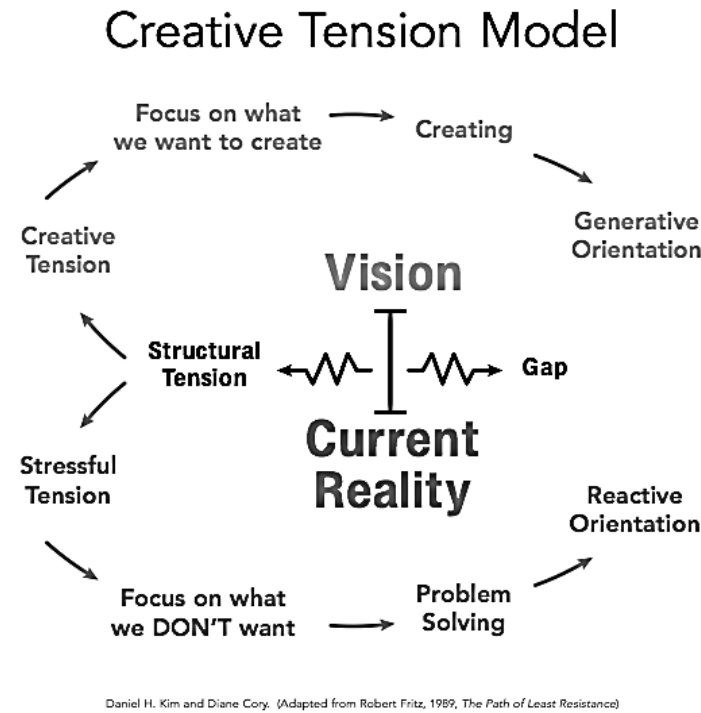


Figure 1c.

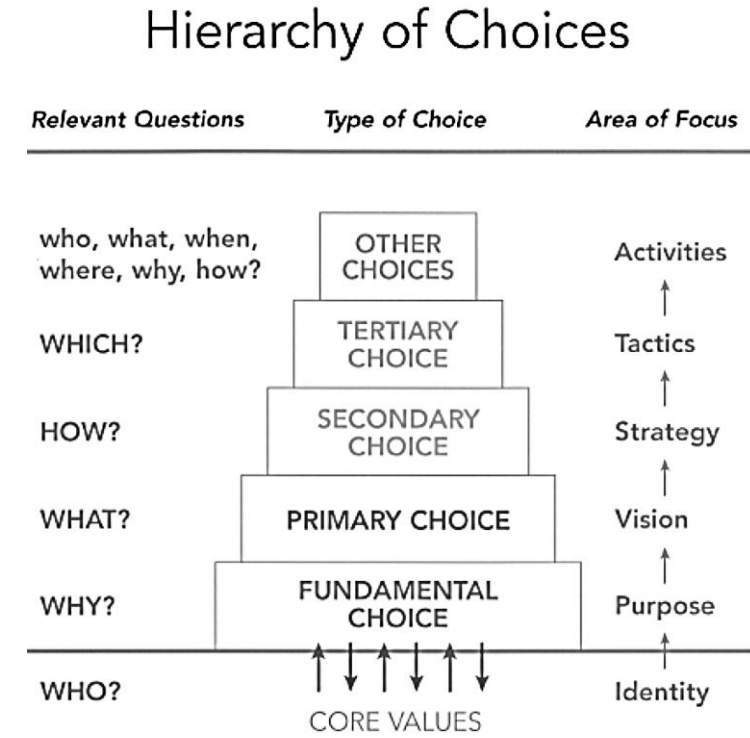


Figure 1d.

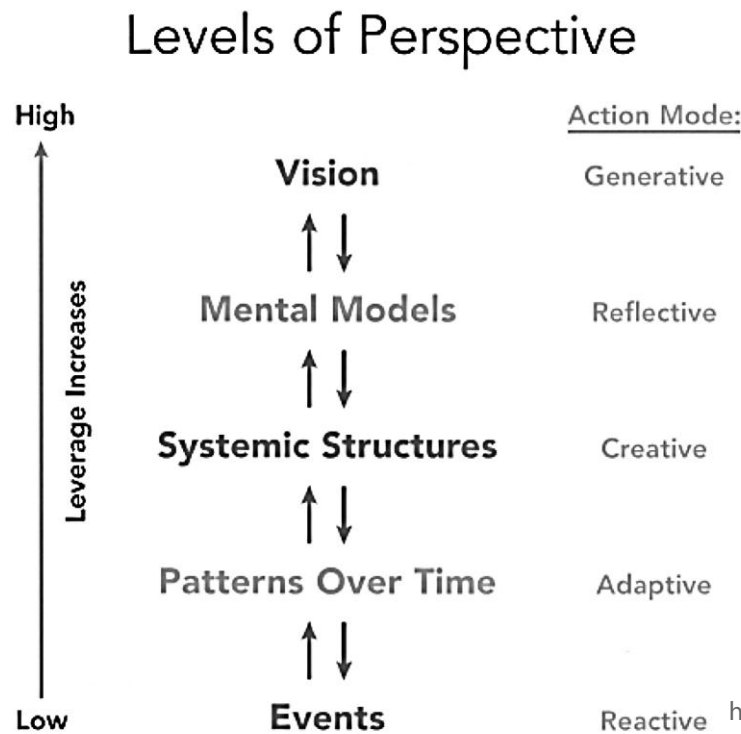
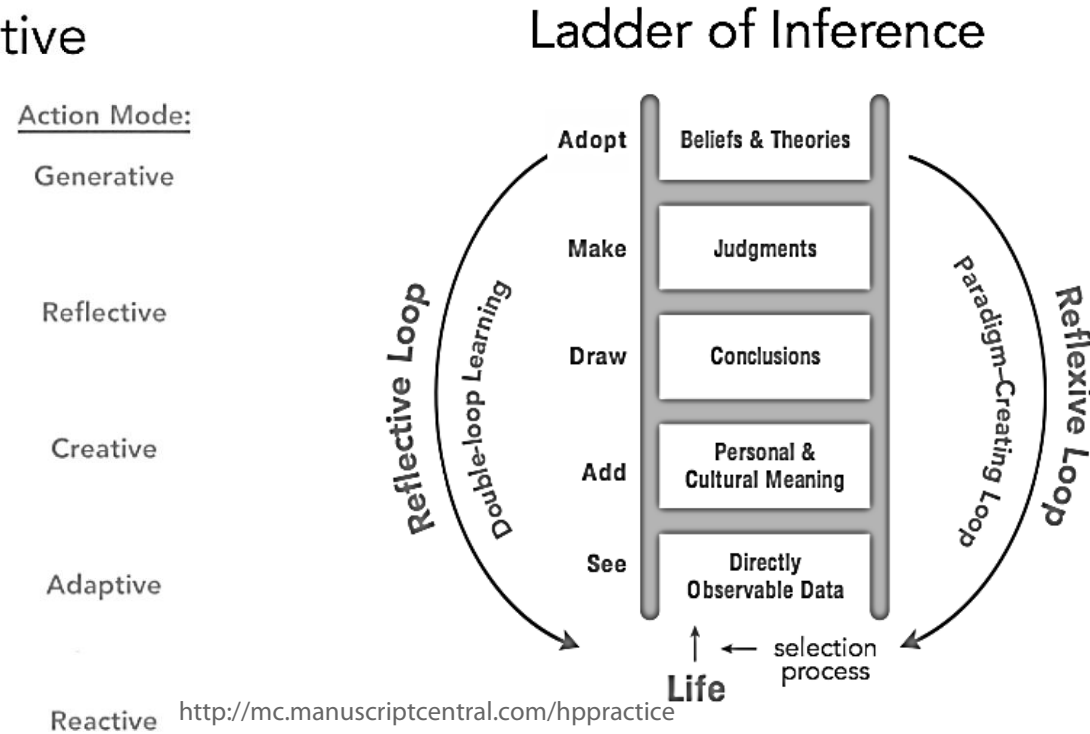


Figure 1e.



Appendix A

Practice Guides for Four Systems Thinking Frameworks

Question Guide to Accompany Core Theory of Success

Question Guide to Accompany Creative Tension Model

Question Guide to Accompany Hierarchy of Choices

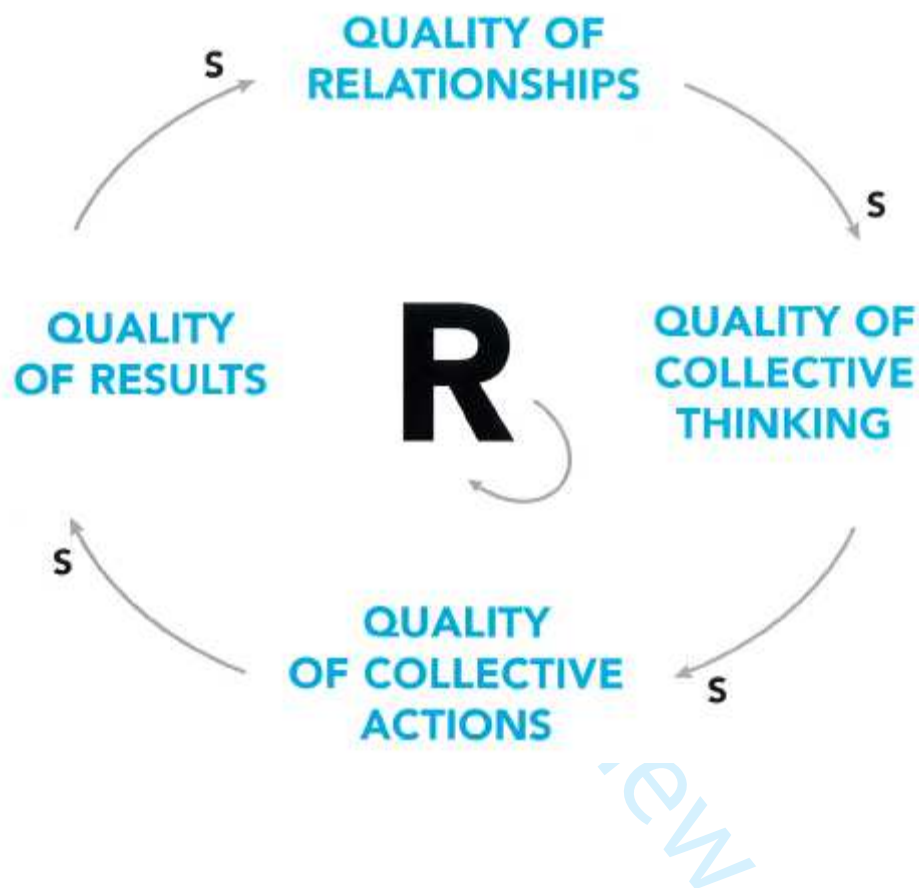
Question Guide to Accompany Levels of Perspective

The Ladder of Inference

For Peer Review

Question Guide to Accompany

Core Theory of Success



“Core Theory of Success” from:

Daniel Kim, *Organizing for Learning*. Waltham, MA: Pegasus Communications, 2001, p. 87.

Question guide developed by Kathleen A. Zurcher. For more information contact her at kzurcher33@gmail.com

This Guide

The purpose of this guide is to provide a partial list of questions that can help groups apply the Core Theory of Success to their work, from planning to sustaining results. At different points in the evolution of your group and its work, different questions will be appropriate.

The Model, from *Organizing for Learning*:

“...as the *quality of relationships* among people who work together increases (high team spirit, mutual respect, and trust), the *quality of thinking* improves (people consider more facets of an issue and share a greater number of different perspectives). When the level of thinking is heightened, the *quality of actions* is likely to improve (better planning, greater coordination, and higher commitment). In turn, the *quality of results* increases as well. Achieving high quality results as a team generally has a positive effect on the *quality of relationships*, thus creating a virtuous cycle of better and better results.

Quality of Relationships

- What is the quality of relationships among people in our community that would facilitate collaborating to create our preferred future?
- What is the quality of relationships diverse community members need to think and work together effectively?
- What quality of relationships will allow people to honestly express their own perspectives and hear those of others?
- Who needs to be in relationship with one another in order to create lasting change in the community? Who is or will be affected by the system we seek to transform?
- Who has typically been excluded from conversations and leadership roles in this issue? How can we engage them respectfully now?
- What is the quality of relationship we want among youth and adults engaged together as partners?
- As we convene the group, what practices will we use to build the quality of relationships? What intentional practices will we use for:
 - making the first contact
 - extending an invitation
 - setting the room environment
 - helping people get to know one another in the context of their mutual work on this issue
 - modeling the kind of relationships we hope to establish among the members of the group
 - continuously building and maintaining relationships
 - communicating before, during, and after each conversation or work session
- What will be the effects on the quality of relationships of the time and place we choose to meet? Consider effects of:
 - Geographic location

- Quality of the space—comfort and flexibility of seating, lighting, sound, cleanliness, accessibility for all ages and abilities, availability of needed equipment, work space for the group and small groups, access to support services (for example, rest rooms, refreshments, copying, parking, public transportation), safety for all group members.
- Owner of the space—Who may be more likely or less likely to participate due to space being owned by a particular organization?
- Time of day set for meetings—Who may be more likely or less likely to participate due to the time of meetings? What groups are being systematically included or excluded depending on the time?
- What temporary enhancements can we make to the meeting space that will enhance the quality of relationships?
- What will we do to sustain the quality of relationships throughout the life of this work, and beyond?
 - What communication strategies will we employ?
 - What will we do to maintain the quality of relationships during transitions in group membership? How will we recognize the departure of members? How will we orient and bring new partners into the group in ways that are effective for them, build new relationships effectively, and maintain relationships among group members?
- How will we assess whether we have built and sustained high quality relationships?
 - What indicators and patterns will we assess over time? How do we expect those patterns to change? How will we collect the information we need for the group to decide whether they need to take additional steps to build their quality of relationships?
 - At what intervals will the group step back and assess their quality of relationships?
 - How will we mark milestones in the relationships?

Quality of Collective Thinking

- What is the quality of collective thinking we need in order to create the most effective plan for our community?
- What questions will engage group members in the thinking that we need at this time?
- What question, if asked of this group, would profoundly change the nature of the conversation and collective thinking?
- What questions will reveal areas of agreement or beliefs, assumptions, and ideas (mental models) we hold in common?
- What questions will reveal areas where we have divergent beliefs, assumptions, and ideas (mental models)?
- What questions will move us to consider the “root of the root” of the issues we are addressing?
- What tools and approaches can we employ to assure that diverse voices and a wide range of perspective are heard? Consider:

- Designing conversations and work sessions in ways that will help to reduce positional power differences among participants
- Establishing group guidelines for participation that incorporate multiple cultural practices and are appropriate for all ages
- Designing work sessions based on systems thinking tools (for example, Hierarchy of Choices, Levels of Perspective/Vision Deployment Matrix, creating Key Success Loops/causal loop diagrams)
- Structuring conversations using a variety of methods (for example, World Café, Generative Dialogue, Appreciative Inquiry, Open Space, U-Process)
- What approaches will we use for our plan (for example, Community Action Plan; visual representations; physical models)?
- Who is the most appropriate person to facilitate conversations so that all members can participate fully?
 - When do we need a skilled facilitator who is not a member of the group? What knowledge and skills do we want that person to have?
 - When can we facilitate our own conversations?
 - What are the intended and unintended consequences of having one of the group members facilitate the conversation? Of having someone outside the group facilitate?
- What are the pressures that the group might feel to move from thinking to action too quickly? What questions will we use to help refocus our attention on collective thinking?
- What questions can help to move the group from a reactive mindset to a creative one?
- What questions will keep the group focused on the future they want to create?
- What questions will elicit an assessment of the positive and negative aspects of current reality, but without putting the group in a reactive mindset?
- What room set-up will we use to enhance our ability to think together collectively?
- What will we do to create a hospitable and productive room environment in service of collective thinking? Consider:
 - Arranging chairs to enhance all participants seeing one another
 - Positioning seating in the room in order to change the shape of the useable space (e.g., using one end of a long-narrow room in order to create a circle, rather than a slender oval)
 - Using flipcharts, markers, and wall space to draw and post ideas, represent our thinking, and to invite all participants to add to the work
 - Bringing color, light, artwork, objects that can be manipulated, snacks, etc. into the room to build energy and creativity
 - Having an appropriate temperature in the room
 - Having materials available and organized for participants, including paper, pens, and other supply items
- How will we document and communicate our collective thinking, for ourselves and others?
 - What will we do to document the collective thinking of the group? During the conversation? As a record of our thinking, agreements, and plans?
 - How will members of the group have access to the record?

- What will be communicated outside of the group? For what purpose? In what form? When?

Quality of Collective Actions

- What is the vision we want to achieve together?
- What are our strategies and tactics for achieving our vision?
- What are the relationships among each proposed action and our strategies and tactics?
- What might be the unintended consequences of our proposed actions?
- What actions can be taken by individuals and organizations separately, and what needs to be done collectively?
- What process will we use to decide who has which responsibilities and what kind of authority?
- How are we accountable to one another?
- How will we communicate with one another about actions, timelines, resources, and outcomes?
- What is our plan for assessing the effectiveness of our actions for achieving our vision?
 - Each action or activity? Relationships among them?
 - The effects of one action/activity on the whole?
- How will we identify gaps between achieving our vision and the complex relationships of effects of actions as we implement them?
 - What milestones will we monitor?
 - What is our process for making adjustments in strategies and modifying action plans?
- What opportunities continue to emerge?
 - Which opportunities are in alignment with our vision and strategies?
 - Who will decide which to pursue and what is the process for deciding?
 - What are the costs of pursuing the opportunity? What are the costs of not pursuing it?

Quality of Results

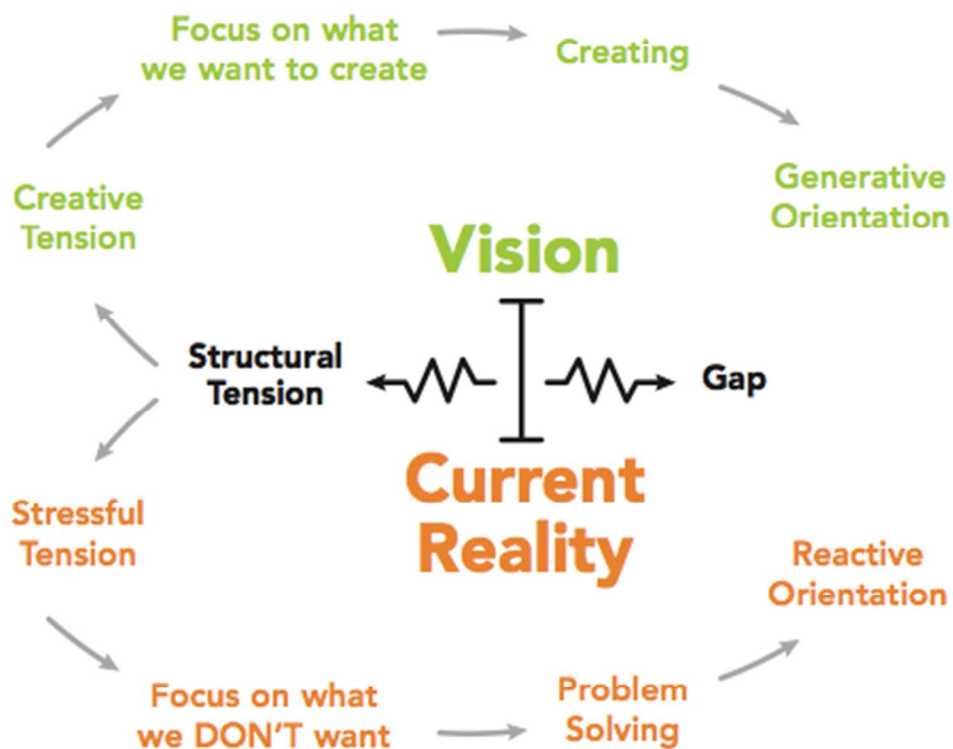
- What indicators will help us assess whether we are moving toward our vision?
- What has been the past patterns-over-time of these indicators? What are the patterns-over-time we would expect to see as we move toward our vision? How will they change?
- What capacities have we developed that will sustain this work and enhance other work?
- What have we learned so far that can inform and improve future work?
 - What worked well this time?
 - What didn't work as well this time?
 - What would we do differently next time? What results would we expect by doing this differently?
- What are our successes?
 - What relationships have contributed to our success?

- What resources have been developed and what resources have we used to achieve these successes?
- What have we learned about our theory of change?
 - Where have we adapted it? With what results?
- What advice would we give to others who are pursuing work such as ours?

References and Resources

- Block, Peter. *Community: The Structure of Belonging*. San Francisco: Berrett-Koehler, 2008.
- Brown, Juanita. *The World Café: A Resource Guide for Hosting Conversations that Matter*. Mill Valley, CA: Whole Systems Associates, 2002. Available from Pegasus Communications, www.pegasus.com.
- Cooperrider, David; Diana Whitney, and Jacqueline M. Stavros. *Appreciative Inquiry Handbook (2nd Ed)*. Brunswick OH: Crown Custom Publishing, 2008.
- Isaacs, William. *Dialogue and the Art of Thinking Together*. New York: Doubleday, 1999.
- Kahane, Adam. *Solving Tough Problems: An Open Way of Talking, Listening, and Creating New Realities*. San Francisco: Berrett-Koehler Publishers, 2004.
- Kim, Daniel.H. *Organizing for Learning: Strategies for Knowledge Creation and Enduring Change*. Waltham, MA: Pegasus Communications, 2001, p. 78.
- Owen, Harrison. *Open Space Technology: A User's Guide*. San Francisco: Berrett-Koehler, Second Edition 1977.
- Scharmer, C. Otto. *Theory U*. Cambridge, MA: Society for Organizational Learning, 2007.
- Senge, Peter; Bryan Smith; Nina Kruschwitz; Joe Laur; Sara Schley. *The Necessary Revolution: How Individuals and Organizations Are Working Together to Create a Sustainable World*. New York: Doubleday, 2008.
- Vogt, Eric E.; Brown, Juanita; and Isaacs, David. *The Art of Powerful Questions: Catalyzing Insight, Innovation, and Action*. Mill Valley, CA: Whole Systems Associates, 2003. Available from Pegasus Communications at www.pegasus.com.
- Zurcher, Kathleen A. "Question Guide to Accompany Hierarchy of Choices", 2009.
- Zurcher, Kathleen A. "Question Guide to Accompany Levels of Perspective", 2009.

Question Guide to Accompany Creative Tension Model



Daniel H. Kim and Diane Cory. (Adapted from Robert Fritz, 1989, *The Path of Least Resistance*)

Creative Tension Model:

Developed by Daniel H. Kim and Diane Cory. Adapted from Robert Fritz, *The Path of Least Resistance: Learning to Become the Creative Force in Your Own Life*. New York: Ballard Books, 1989.

Model illustration from *It Begins Here: Organizational Learning Journey Toolkit*.

Compiled and designed by W.K. Kellogg Foundation in collaboration with Daniel H. Kim and Diane Cory. Copyright 2006, Daniel H. Kim. Available from Cobee Trading Company in Singapore, www.cobee.com.sg.

Question guide developed by Kathleen A. Zurcher. For more information contact her at kzurcher33@gmail.com

This Guide

The purpose of this guide is to provide a partial list of powerful questions that can help groups apply the Creative Tension Model to their work. At different points in the evolution of your group and its work, different questions will be appropriate.

The Model

From *The Fifth Discipline: The Art and Practice of the Learning*

Organization :

“The juxtaposition of vision (what we want) and a clear picture of current reality (where we are relative to what we want) generates what we call ‘creative tension’: a force to bring them together, caused by the natural tendency of tension to seek resolution.”
(Senge, 2008, p. 132)

Vision

- Who needs to be part of the process of creating shared vision for our community, team, project or work?
 - Who has been historically excluded from determining the future of the community? How can we engage them respectfully now?
 - How will we engage youth as leaders, partners and full participants in imagining the future for our community?
 - What sectors of the community (or organization) typically have not worked together, but should be part of the conversation about the shared vision for the future we want to create? Who is the best person or what is the best group to secure their engagement in creating our shared vision?
- What is the future we truly care about creating for children and families in our community?
- If we could create things the way we want them to be, what would that look like?
- When we reach our vision, what will children and families experience?
 - As concretely and with as much detail as possible, what will youth and adults see, hear, do, and feel in the community of our vision?
 - It is ten years from now and our vision has become reality. A reporter comes to the community to see the results. What does the reporter write or say about daily life in the community?
- What events will be capturing the attention of people in our community ten years from now because the vision has been successfully achieved?

Current Reality

In the context of our shared vision, what aspects of current reality are relevant to our work? (Note: *Not everything in current reality is relevant to your area of focus.*)

- What is happening now in our community (or organization/team)?
- What events are capturing our attention?
- What patterns do we see emerging?
 - Which patterns are troubling? Why?
 - Which patterns are hopeful? Why?

- What are children and families currently experiencing in their lives?
 - As concretely and with as much detail as possible, **currently** what do youth and adults see, hear, do, and feel in the community compared to the future that is possible in our vision?
- What aspects of current reality can be leveraged to support achieving the vision?
- What resources currently exist that we can redirect toward the group's desired future?

Structural Tension/Creative Tension/Stressful Tension

Structural tension is the source of the creative tension and creative energy that will lead to the shared vision we want.

- What questions or approaches will help us live with the tension that results from the gap and remain focused on what we want to create?
- What events, information, and pressures might move us into a reactive orientation? What approaches can be used to refocus on what we want to create together and maintain a generative orientation?
- What is the source of our discomfort with the gap between vision and current reality?

Problem Solving/Reactive Orientation

- What is the source of our impatience with the speed of the process of creating and working toward our shared vision?
- What well-intentioned quick-fixes or piece-meal solutions have been tried in the past?
 - In light of these efforts, resources used, and the valiant efforts of talented people, why are we still experiencing problems in current reality?
 - What have been the unintended negative consequences of some of the solutions we have tried?
- Why, despite our best efforts, is current reality not meeting our expectations?
- What aspects of current reality are pulling us into a reactive, problem-solving response? What can we do to reduce anxiety, while maintaining a focus on creating?

Creating/Generative Orientation

- What commitment are we willing to make in order to achieve the future we truly want to create?
- If resources were not a concern, what would we create together in service of our shared vision?
- What already exists today that we could build on to create the future we want for families and children in our community?
- Who else shares our passion for creating this vision? How can we bring them into partnership with us?

Maintaining a Focus on the Creative Path

- What will achieving our shared vision contribute to the lives of children and families in our community?
- How long have the patterns we're seeing now in our community existed? What is a reasonable time, then, for us to take to achieve the shared vision we've committed to?
- What has already begun to move toward our preferred future, simply through the act of creating a shared vision?
- What will we do to document and communicate emerging changes and milestones on the path to making our vision a reality?

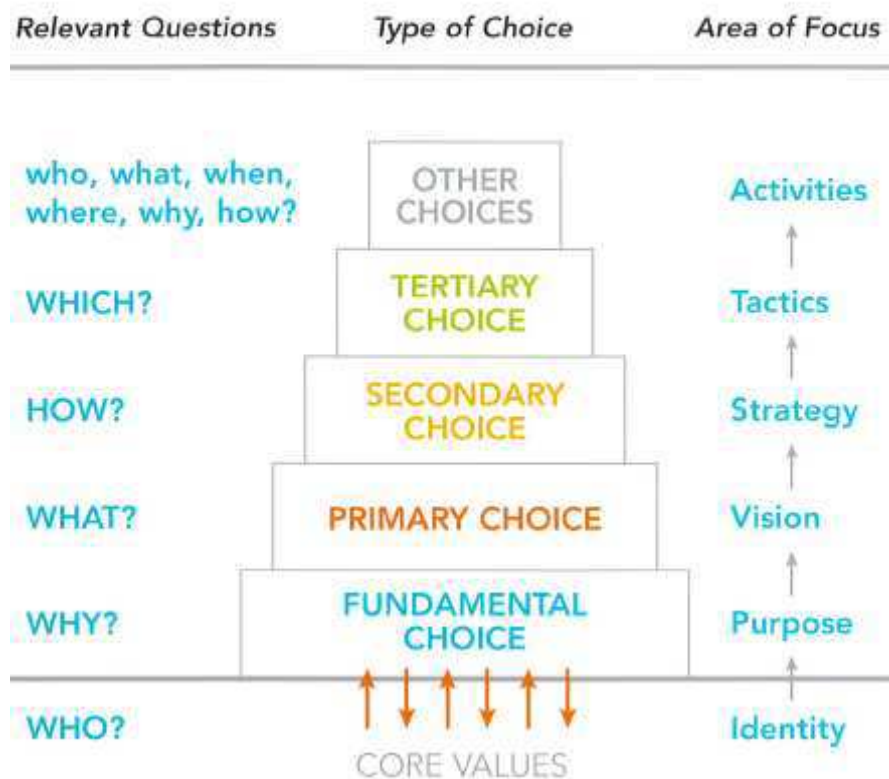
References and Resources

Fritz, Robert. *The Path of Least Resistance: Learning to Become the Creative Force in Your Own Life*. New York: Ballentine Books, 1989.

Senge, Peter M. *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday, 2006 (2nd ed).

Question Guide to Accompany

Hierarchy of Choices



Hierarchy of Choices from:

Daniel Kim, *Foresight as the Central Ethic of Leadership*. Indianapolis, IN: The Greenleaf Center for Servant-Leadership, 2002, p.16.

Model illustration from *It Begins Here: Organizational Learning Journey Toolkit*. Compiled and designed by W.K. Kellogg Foundation in collaboration with Daniel H. Kim and Diane Cory. Copyright 2014, Daniel H. Kim. Available from Cobee Trading Company in Singapore, www.cobee.com.sg.

Question guide developed by Kathleen A. Zurcher. For more information contact her at kzurcher33@gmail.com

This Guide

The purpose of this guide is to provide a partial list of powerful questions that can help groups apply the Hierarchy of Choices model to their work. At different points in the evolution of a group and its work, different questions will be appropriate. Select the questions from each section that will be most effective for your group.

The Model

From *Foresight as the Central Ethic of Leadership* (Kim, 2002):

Choice plays an important role in vision. If we never exercise choice, we will forever stay in a state of wanting things without ever taking steps toward attaining them. It is the conscious choice to bring something into reality that transforms an idle dream into a vision that has the power to tap into people's energy and commitment.

In his book, *The Path of Least Resistance*, Robert Fritz differentiates between making Fundamental, Primary, and Secondary Choices. Fritz points out that it is very difficult to make choices at one level if we have not yet made choices at the level below it.

When every member of the team (or organization) has internalized the core values and purpose of the team and has a clear picture of the result they are striving for, they will be guided every step of the way by the clarity of these choices at the foundational levels.

Hierarchy of Choices is a useful model for structuring strategic planning using a generative, systemic approach. It applies equally well to the work of a group of community members and to an entire organization. One significant result of applying this model is building a strong foundation for aligned action.

Generally as we apply this model, we begin with purpose and core values and proceed through vision. At the point that we move to strategies, we take a side step and apply the Vision Deployment Matrix, VDM (based on Levels of Perspective). After completing a VDM for our work, we have the shared analysis and agreements that result in strong strategies, tactics, and activities that support achieving our vision.

Daniel Kim reports that he typically begins with an initial conversation about purpose, but then quickly returns to deeper conversation about Core Values that would serve that purpose. However, this guide is organized starting at the bottom of the model.

Core Values: Who are we? (The foundation for our work)

- What values are so essential to our work that they are core to our identity?
- Which values will underlie and be reflected in every decision, action, and communication about our work?
- If values are the DNA of collective work, what is our DNA?
- What implications does our purpose have for the core values that we will embrace?

Purpose: Why do we exist? (Fundamental Choice)

- Why does this group exist?
- What is our one, central reason for being? (Not HOW do we do things—what is the purpose of our work together?)

Vision: What do we want to create together? (Primary Choice)

- Who needs to participate in providing thinking and leadership for developing our vision for the future?
 - Who has been historically excluded from conversations? How will we engage them respectfully?
 - In what ways will we authentically engage youth as partners, leaders, and decision makers?
 - How can we assure that the collaborators effectively represent diverse people and thinking in the community?
 - What will we do to assure community involvement throughout this work?
- If we pursue our purpose and live by our values, what future will we create?
- What is the vision we want to achieve together?
- What is the future we truly care about creating for children and families in our community?
- If we could create things the way we want them to be, what would that look like?
- When we reach our vision, what will people experience? What will they see, hear, do, and feel in their daily lives?
- What is the future toward which we would be willing to commit our time and resources?
- What are our anticipated long-term outcomes?

Strategies: How will we go about achieving our vision? (Secondary Choice)

- What long-term approaches will we employ together to achieve and sustain our shared vision?
- What is our collective picture of the system when it is fully functioning and creating the future we want?
 - What are the causal relationships among the parts of the system?
 - What are the key success factors that will influence our ability to achieve our vision? What are the causal relationships among those factors? In

- other words, what is the self-reinforcing success loop we are trying to create?
- Where are the longest delays between a change in one part of the system and its influence on the next? How might we reduce the delays through investments of various resources?
 - What investments will we make to create the future we envision?
 - What is our theory (what are our mental models) about how change will occur to move from current reality to our vision?
 - What is our collective thinking about how the strategies we identify will result in the future we envision?
 - What is the relationship among the strategies we are considering?
 - What strategies have we decided against? With what consequence?
 - What formal and informal policies can be adopted to help create the future we seek?
 - What practices will we adopt or change to create our preferred future?
 - What is the appropriate sequence or phasing for our strategies?
 - Which strategies are dependent on other strategies for their effectiveness?
 - What resources do we have available, compared to what resources are needed for each strategy?
 - For which strategies do we need to create readiness before we can pursue them?
 - What will we assess to know whether our strategies are having the intended effects on the system, and to make adjustments as frequently as needed? How often will we consider making adjustments in strategies?
 - What might be some unintended consequences of choosing to implement the strategies we are considering? What can we build into our strategies to monitor effects and to reduce the likelihood or the impact of these consequences?
 - What is the role of communications in these strategies?
 - **See “Question Guide to Accompany Levels of Perspective” for a more detailed set of questions for identifying strategies.**

**Tactics: Which actions will we take to carry out each strategy?
(Tertiary Choice)**

- Which shorter-term approaches will we use to implement our strategies?
 - Which should come earlier in our sequence?
 - Which should come later?
- What timely opportunities, consistent with our strategies, are available now?
 - Which opportunities are in alignment with our vision and strategies
 - What are the costs of pursuing the opportunity? What are the costs of not pursuing it?
 - Of those available, which will we pursue?
- What resources, including partners and expertise, will we need to implement strategies? How will we secure these resources?

Activities: Who will do what? When? Where? Why? How? (Other Choices)

- What illustrative examples of activities and actions add clarity to our plan, recognizing that specific activities will be identified and planned throughout implementation?
- To what extent does each proposed activity clearly carry out a tactic and strategy, in service of achieving our shared vision?
- Who will lead implementation of each activity?
- When will we implement each activity? What is the sequence that we believe is practical and useful?
- Where is the most appropriate place to carry out the activity?
- What resources do we have available to us? Which activities are highest priorities to implement with the available resources?

References and Resources

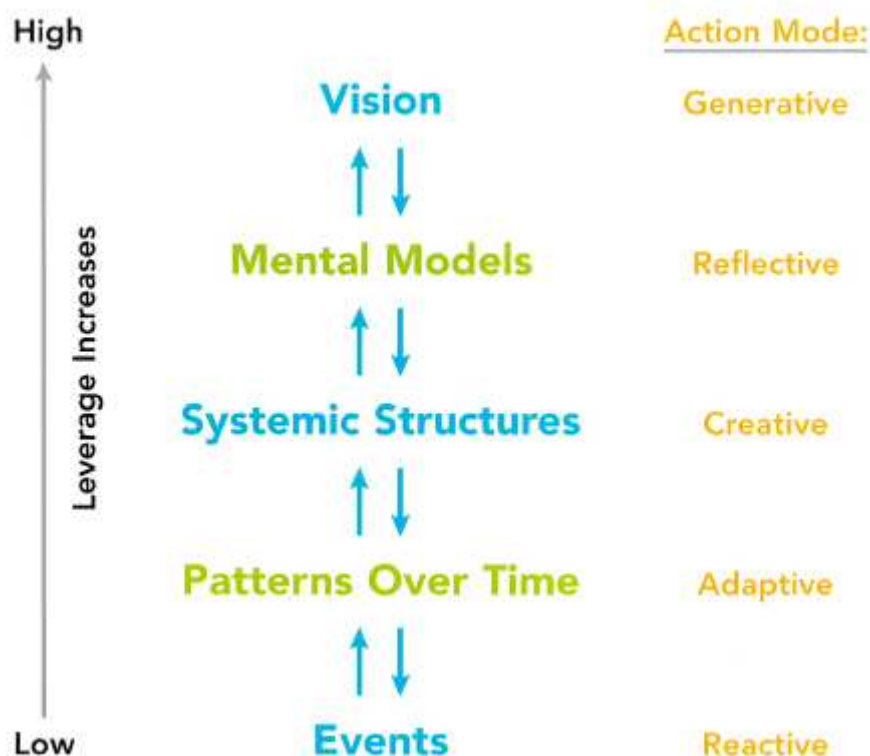
Fritz, Robert. *The Path of Least Resistance: Learning to Become the Creative Force in Your Own Life*. New York: Ballentine Books, 1989.

Kim, Daniel. *Foresight as the Central Ethic of Leadership*. Indianapolis, IN: The Greenleaf Center for Servant-Leadership, 2002, p. 16.

Zurcher, Kathleen A. "Question Guide to Accompany Levels of Perspective", 2017.

Question Guide to Accompany

Levels of Perspective



Levels of Perspective Model from:

Daniel Kim, *Organizing for Learning: Strategies for Knowledge Creation and Enduring Change*. Waltham, MA: Pegasus Communications, 2001, pp. 93-103.

Model illustration from *It Begins Here: Organizational Learning Journey Toolkit*.

Compiled and designed by W.K. Kellogg Foundation in collaboration with Daniel H. Kim and Diane Cory. Copyright 2014, Daniel H. Kim. Available from Cobee Trading Company in Singapore, www.cobee.com.sg.

Question guide developed by Kathleen A. Zurcher. For more information contact her at kzurcher33@gmail.com

This Guide

The purpose of this guide is to provide a partial list of powerful questions that can help groups apply the Levels of Perspective and Vision Deployment Matrix models to their work. At different points in the evolution of a group and its work, different questions will be appropriate. Select the questions from each section that will be most effective for your group.

The Model

From *Organizing for Learning: Strategies for Knowledge Creation and Enduring Change* (Kim, 2001):

“There are multiple levels from which we can view and perceive the world. From a systemic perspective, we are interested in five distinct levels—events, patterns of behavior, systemic structures, mental models, and vision.” (p. 99)

“All five levels are important for developing a systems thinking perspective, especially because we live in an event-oriented world, and our language is often rooted in that level.” (p. 100)

“One of the most important messages of the ‘Levels of Perspective’ framework is that we must recognize the level at which we are operating, and evaluate whether taking the corresponding action provides the highest leverage for that situation. Each level offers different opportunities for high-leverage action, but they also have their limits. The challenge is to choose the appropriate response for the immediate situation and find ways to change the future by operating at multiple levels in multiple action modes.” (p. 103)

The Levels of Perspective model is the essence of the Vision Deployment Matrix (VDM). For the VDM, Levels of Perspective is applied first to desired future and then to current reality. The gaps between desired future and current reality are the sources of strategies, tactics, and activities in the Hierarchy of Choices Model. VDM is a practical tool to guide collective thinking, as well as to move from vision to action.

“The Vision Deployment Matrix offers a schema for strategically planning how to cross the “chasm” between current reality and vision by painting a comprehensive picture of the desired future reality and current reality at five levels of perspective.” “This includes translating the ideals of vision into a practical reality that guides and affects not only the strategic thinking in the organization, but the day-to-day operations as well.” (Kim, 2001, p. 87)

Vision Deployment Matrix (VDM) (Kim, 2001)

	Level of Perspective (Action Mode)	Desired Future Reality	Current Reality	Gaps, Open Issues, Questions	Action Steps	Indicators of Progress	Timeline
↑ Increasing Leverage	Vision (Generative)						
	Mental Models (Reflective)						
	Systemic Structures (Creative)						
	Patterns (Adaptive)						
	Events (Reactive)						

This guide includes Levels of Perspective questions for both Desired Future Reality and Current Reality.

Desired Future Reality

Vision

- What is the vision we want to achieve together?
- What is the future we truly care about creating for children and families in our community?
- If we could create things the way we want them to be, what would that look like?
- When we reach our shared vision, what will people experience? What will they see, hear, do, and feel in their daily lives?
- What is the future toward which we would be willing to commit our time and resources?
- What is our intended impact? What long-term results do we want to achieve, and for whom?
- Who else shares our passion for creating this vision? How can we bring them into partnership with us?

Mental Models

- “What assumptions, beliefs, and values are needed to realize the vision?” (Kim, 2001, p. 94)
- What beliefs and assumptions support our shared vision?

- What beliefs and assumptions do we need to activate in ourselves and others if we are to achieve our vision? Who needs to hold them?
- What beliefs and assumptions are implicit or assumed in our shared vision?
- What theories about our community, the world around us, and how change happens are assumed in our vision?
- What assumptions about the future do we share that we need to make explicit in order to test whether others hold the same assumption?

Systemic Structures

- What systems and structures will be consistent with our mental models?
 - What are the characteristics of those systems and structures?
 - What would our mental models look like if they were put into practice in a coherent system?
- What is our collective picture of the system when it is fully functioning and creating the future we want?
 - What are the causal relationships among the parts of the system?
 - What are the key success factors that will influence our ability to achieve our vision? What are the causal relationships among those factors? In other words, what is the self-reinforcing success loop we are trying to create?
- What policies (formal and informal) and practices will be part of the future system that will result in achieving our shared vision?
- “What kinds of systemic structures (either invented or redesigned) are required to operationalize the new mental models and achieve the vision?” (Kim, 2001, p. 94)

Patterns Over Time

- What patterns will we monitor over time to know whether we are moving toward our shared vision?
- “What are some key indicators whose pattern of behavior shows that the desired vision is a reality?” (Kim, 2001, p. 94)
- What would we expect the patterns over time for key indicators to look like when we are making progress toward our vision?
- How will we track both positive and negative unintended consequences of the structures and systems we implement, and learn from them?

Events

- When our vision has become current reality, what events do we anticipate we would see?
- When we reach our vision, what will children and families experience?
 - As concretely and with as much detail as possible, what will youth and adults see, hear, do, and feel in the community of our vision?
 - It is ten years from now and our vision has become reality. A reporter comes to the community to see the results. What does the reporter write or say about daily life in the community?

- What events will be capturing the attention of people in our community ten years from now because the vision has been successfully achieved?

Current Reality

Events

- What is happening now related to our vision in our community? Be as specific as possible:
 - Who did or said what? When did this happen? With what impact on individuals, families, or the community?
 - What policies have been enacted? When? With what results?
- What are children and families currently experiencing in their lives?
 - As concretely and with as much detail as possible, **currently** what do youth and adults see, hear, do, and feel in the community compared to the future that is possible in our vision?
- What events related to our shared vision are capturing our attention?
- What are you experiencing? What are others experiencing?
- “What events characterize the current reality?” (Kim, 2000b)

Patterns Over Time

- What patterns have we seen emerging?
 - Which patterns are troubling? Why?
 - Which patterns are hopeful? Why?
- How long have the patterns we’re seeing now in our community existed?
- What policies, community or societal structures, and systems in your communities do you believe are creating the patterns and events you’ve been noticing?
- “What behavior patterns of key indicators characterize the current system?” (Kim, 2000b)

Systemic Structures

- Why have we been unable to solve X problem or achieve Y result, despite our best efforts?
- What solutions have been tried in the past, and what happened as a result? What have been the unintended consequences that we have observed?
- What has been working? What can we build on?
- How do the underlying factors contributing to the problem relate to each other?
- How do changes in one factor influence changes in others?
- What policies and practices have produced the patterns and events that we have experienced?
- “What systemic structures are producing the behavior pattern behind our current results?” (Kim, 2000b)
- What goals is the current system designed to achieve, i.e. what are the benefits of the way things are? Who reaps these benefits?
- What aspects of current reality can be leveraged to support achieving the vision?

- What resources currently exist that we can redirect toward the group's desired future?
- What is our collective picture of the system as it operates now?
 - What are the causal relationships among the parts of the system?
 - What causal relationships among key system variables are producing the vicious cycle and the outcomes we are experiencing?
 - What causal relationships are currently working as we would like?
- "What systemic structures are producing the most dominant pattern of behavior in the current system?" (Kim, 2001, p. 94)

Mental Models

- What beliefs and assumptions that people hold will be challenges for achieving our shared vision? Who holds them?
- What beliefs and assumptions that people hold will support achieving our shared vision?
- What beliefs and assumptions are in a phase of transition? What effects will they have on our ability to achieve our shared vision?
- In what ways are our own beliefs and assumptions influencing the patterns and events we are noticing?
- "What are the prevailing assumptions, beliefs, and values that sustain the existing systemic structures?" (Kim, 2001, p. 94)

Vision

- What is the current espoused vision for our area of interest?
 - If we asked people what they thought the vision related to our area of interest is, what would they say publicly?
 - What is written about vision in public relations materials for the community or organizations?
 - What are the multiple statements of vision that you are aware of?
- What is the current vision-in-use?
 - Noting current policies, practices, actions, and decisions, what do we conclude about the current vision-in-use, as distinct from what is printed or spoken?
 - Based on the results produced by the current system, what might an observer say is our current vision-in-use?

References and Resources

- Kim, Daniel H. *Organizing for Learning: Strategies for Knowledge Creation and Enduring Change*. Waltham, MA: Pegasus Communications, 2001.
- Kim, Daniel H. *Vision Deployment Matrix I: Shifting from a Reactive to a Generative Orientation*. Pocket guide PG17. Waltham, MA: Pegasus Communications, 2000a.
- Kim, Daniel H. *Vision Deployment Matrix II: Crossing the Chasm from Reality to Vision*. Pocket guide PG 18. Waltham, MA: Pegasus Communications, 2000b.
- Kim, Daniel H. *Foresight as the Central Ethic of Leadership*. Indianapolis, IN: The Greenleaf Center for Servant-Leadership.
- Zurcher, Kathleen A. "A Question Guide to Accompany Hierarchy of Choices", 2017.

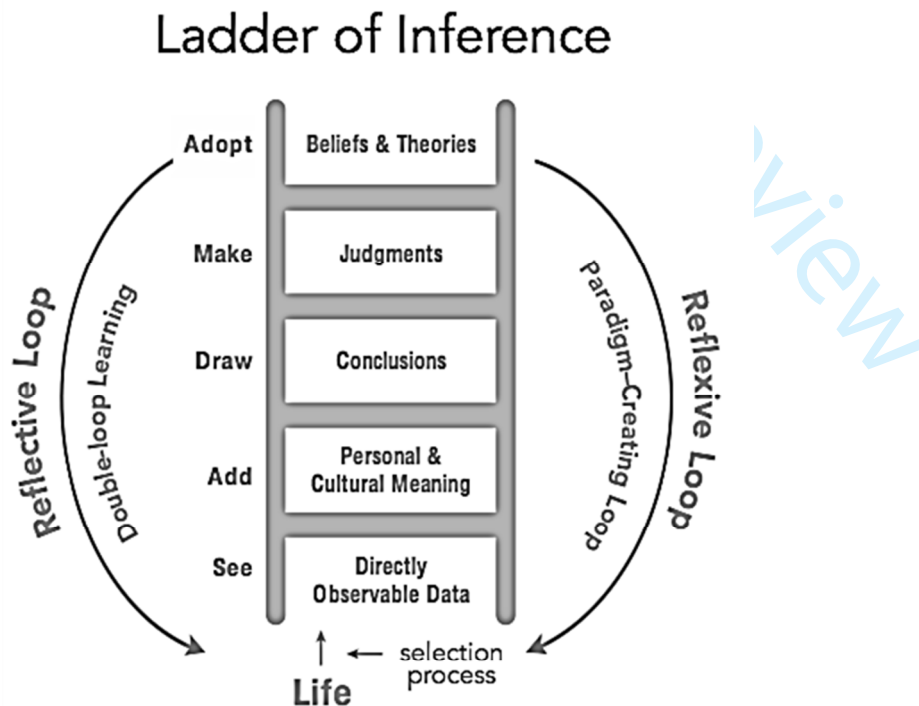
Ladder of Inference Guide

The practice guide for the Ladder of Inference used in the Food & Fitness work is currently under development by Kathleen A. Zurcher (For more information contact her at kzurcher33@gmail.com). The following interim guide provides background that can be used related to the Ladder of Inference.

We live in a world of self-generating beliefs that remain largely untested. We adopt those beliefs because they are based on conclusions we draw, which are inferred from what we observe, plus our past experience. Our beliefs and theories tend to filter what we observe, thereby reinforcing those beliefs.

Our ability to achieve the results we truly desire is eroded by our feelings that:

- Our beliefs are the truth.
- The truth is obvious.
- Our beliefs are based on real data.
- The data we select are the real data.



Daniel H. Kim and Diane Cory. Adapted from Chris Argyris, *Overcoming Organizational Defenses* and Senge, et al, *The Fifth Discipline Fieldbook*

Figure 1: The Ladder of Inference

Using the Ladder of Inference

You can't live your life without adding meaning or drawing conclusions. It would be an inefficient, tedious way to live.

But you can improve your communications through reflection, and by using the ladder of inference in three ways:

- Becoming more aware of your own thinking and reasoning (reflection);
- Making your thinking and reasoning more visible to others (advocacy);
- Inquiring into others' thinking and reasoning (inquiry).

The Ladder of Inference was described by organizational psychologist Chris Argyris and used by Peter Senge (1994) in *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*.

Appendix B

Capstone Conversation and Phone Interview Questions

Capstone Conversation Questions

1. What have we learned about aligning partners around a shared vision, a common agenda, strategies and resources in support of desired outcomes? In what ways did you apply systems thinking to your work? (Author note: Hierarchy of Choices)
2. How have unique aspects of the partnerships contributed to long-term change in the community? (Author note: Core Theory of Success)
3. What roles have grassroots community members and young people in leading strategic systems change? (Core Theory of Success)

Phone Interview Questions

1. How did you become involved with your community's Food and Fitness partnership? What has been your role in it?
2. What have been some key accomplishments from your perspective?
3. Tell me about your experience with systems thinking in Food & Fitness work.
4. Which frameworks, tools, or systems thinking principles have influenced your food and fitness work? (The list was used to prompt individuals who were having difficulty remembering names of frameworks or principles.)
 - a. Core theory of success
 - b. Creative tension
 - c. Hierarchy of choices
 - d. Levels of perspective

- e. Vision deployment matrix
 - f. Ladder of inference
 - g. Anticipating "unintended consequences"
 - h. "Slower is faster" for system change
 - i. "Accidental adversaries"
5. What advice do you have for other communities considering using a systems thinking/systems change approach for their work?
6. What else would you like me to know about your work?