Z I P P E R

A Mnemonic for Systems-Based Evaluation

ZIPPER helps you enrich your evaluation by using key concepts from multiple systems theories. Tap into the power of a systems orientation by:

Zooming in and out of evaluand and its environment

Zoom in to look for key parts of the evaluand[1]. These important parts include definable entities such as people, organizations, goals, activities, inputs, outputs, and outcomes. What parts of the evaluand do you suspect might be key to its value, merit, or worth?

Zoom out to see what surrounds the evaluand. What is its context? What larger system is it part of? How does the context/larger system interact with the evaluand?

Zoom in and out, back and forth, from the evaluand. Look for boundaries and differences between the evaluand and its surroundings and between parts within the evaluand. How permeable are the boundaries?

Interconnecting the parts

Consider how the parts of the evaluand are connected—or might be connected. Draw sketches of the connections. Talk with the client about the connections. Draw network maps. What do you know about the strength of the connections? Their longevity? Their stability?

Consider the connections and relationships of the subparts of the evaluand to other parts of the greater whole. What connections to the larger system are worth exploring? Testing? Measuring?
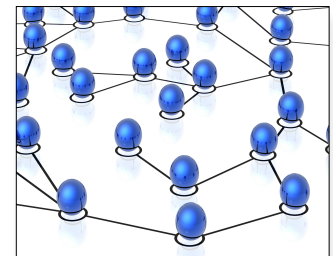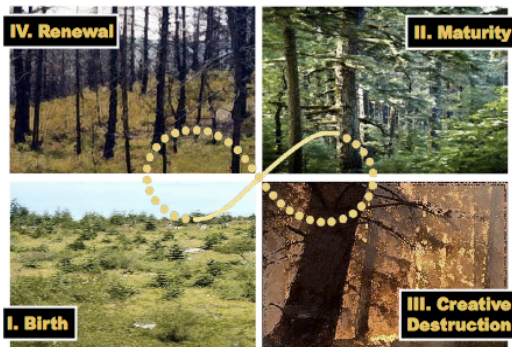
Plunging into paradigms, structures and conditions

Plunge deep below the surface of the evaluand and its environment to try to understand what is happening at the deepest level—the level of paradigms, structures, processes, and conditions. How are these shaping the visible aspects of the evaluand? What paradigms, structures, processes, and conditions, if any, are changing—or may change over time? (See iceberg graphic.)

Activities & Results
Patterns
Norms, Infrastructures & Policies
Principles
Paradigms

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[1] The evaluand is the initiative, product, project, organization, or other entity being evaluated.

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Perceiving patterns

An Example Pattern: Ecological Cycle of a Forest[2]

What patterns of perspectives, actions, relationships might be under the surface of observable events and behaviors and/or reflect the deeper paradigms, structures, and conditions? Look for patterns over time and locations. Are they predictable? How much do they vary? Are they linear? Nonlinear? Circular? What other patterns do you notice?

Envisioning energy

Envision the parts, interconnections, and patterns of the evaluand in motion. Where is the energy? Do you have clues as to what is creating, slowing, or changing the energy?

Where is the motion externally determined or controlled? Where is the movement shaped largely by those engaged in the action? How quickly does it move? How consistently?

Envision the evaluand against the backdrop of the larger system. What motion do you see in the larger system? How is it similar or different from that of the evaluand? Where do they intersect?

Recognizing results

What are the results of the evaluand's presence and actions? Consider time delays; short and long periods of time; and distant and proximal results. Look for results in entities, interconnections, systems, and the greater whole. Look for intended and unintended results.

Our description here focused on the evaluator considering the evaluand. This approach can also be used by funders or leaders of the evaluand as they consider the desired purpose and focus for an evaluation.

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[2] Figure adapted from: Zimmerman, B., Lindberg, C., & Plsek, P. (2001) *Edgeware: Insights from complexity sciences for health care leaders*. Irving TX: VHA, Inc.

Link of ZIPPER to Systems Theories

ZIPPER derives from the study of systems theories and several years of applying a systems-orientation to evaluations. We have adopted the groupings of systems theorists presented by Ramage and Shipp[3] to show how ZIPPER relates to relevant systems theories. (See the primary ZIPPER links in parentheses following the description of the systems theory category.)

Cybernetics: Cybernetics focuses on the concepts of feedback and information and the parallels between human and machine behavior. (At its core, evaluation is based on the concept of feedback. It is the backdrop for all aspects of ZIPPER.)

General Systems Theory: General systems theory is concerned with issues of boundaries, hierarchies, and open versus closed systems. (**Z**ooming In and Out of Evaluand and Environment; **I**nterconnecting the Parts)

System Dynamics: System dynamics focuses on modeling systems with high degrees of feedback and circularity, especially complicated systems that are fairly predictable. (**P**erceiving **P**atterns; **R**ecognizing **R**esults)

Complexity Theory: Complexity theory involves highly complex and interconnected systems with a focus on self-organization, emergence, and nonlinearity. (**P**lunging into **P**aradigms, Structures, and Conditions; **P**erceiving **P**atterns; **E**nvisioning **E**nergy; **R**ecognizing **R**esults)

Soft and Critical Systems: Soft and critical systems apply techniques based on systems engineering and operational research to human systems. The methods take into account power dynamics and multiple perspectives when examining intractable problems with no simple solutions. (**Z**ooming In and Out of Evaluand and Environment; **P**lunging into **P**aradigms, Structures, and Conditions)

Learning Systems: This is a broad range of concepts that focus on the way people learn and the systems within which they learn. (Evaluation is a part of a learning process.)

This gives you a general picture of how the systems theories relate to ZIPPER as well as their similarities and differences. Other groupings of systems thinkers and theories exist that also could be linked to ZIPPER.

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3   Ramage, M. & Shipp, K. (2009). *System thinkers.* London: Springer.

APPLY ZIPPER AT ANY PHASE OF EVALUATION

We are conceptualizing evaluation as having the following four phases: (1) design the evaluation; (2) collect data; (3) make meaning from the data; and (4) shape practice. As indicated in the figure, these phases are not necessarily linear or distinct. Each phase can inform and influence the others throughout the life of an evaluation.

You can apply ZIPPER at any or all phases of evaluation. Here are examples:

ZIPPER at the Design phase. (In this phase, you determine what methodologies and orientations best match the purpose of the evaluation.) The ideal time to apply ZIPPER is at the design phase. It helps you expand the options and set priorities for the focus of the evaluation. It is your opportunity to consider single or multiple methodological designs. Using ZIPPER prompts you to think about issues affecting the data analysis, synthesis, and interpretation methods to include in the design and ask questions such as: Who will perform these tasks? How will the tasks be undertaken so as to help the intended users shape their practice?

Phases of Evaluation

ZIPPER at the Data Collection phase. (This phase can include multiple types of data from multiple sources.) If your evaluation is already at the data collection phase, don't despair. Use ZIPPER to consider if changing a few questions in, say, an interview protocol could elicit insights into deeper patterns, structures, or paradigms. Perhaps **Z**ooming out made you aware of the perspective of another stakeholder group that would help you better connect what you are learning about the evaluand to the broader systems being affected by the evaluand. For example, might there be **I**nterconnections involving state policies that you hadn't considered before?

ZIPPER at the Making Meaning phase. (This phase includes analysis, synthesis, and interpretation of data.) Perhaps you have your data collected and analyses are already underway. Use ZIPPER to help you gain new ideas about how to synthesize the results of data from multiple data collection sources or methods. For example, as you **P**lunge into paradigms, structures, and conditions, you may get ideas about including someone on an interpretative panel with a different perspective. Or ZIPPER may cause you to notice someone's role in the next stage of implementation of a change process that you had missed earlier.

ZIPPER at the Shaping Practice phase. (In this phase, you provide findings in ways that make the evaluation useful to the intended users.) What if you are in the final stages of writing your evaluation report? Use ZIPPER to help you with that final section on conclusions and implications. Think outside the box of your findings. **Z**oom out to see how the findings might connect to other projects you hadn't considered before. **P**lunge down to underlying structures and paradigms that might be shaping the evaluation results. Look for **I**nterconnections among the groups from whom you gathered data that you hadn't thought of before. Consider patterns over time that you had missed. All of these systemic connections and more can help you create an insightful conclusion for your evaluation report.