

# 2

## GCM IN ACTION: CAPTURING KNOWLEDGE, VALUING PARTICIPATION

In Chapters 2 and 3 we focus on how to conduct a complete GCM initiative and produce useful results. This chapter is dedicated to

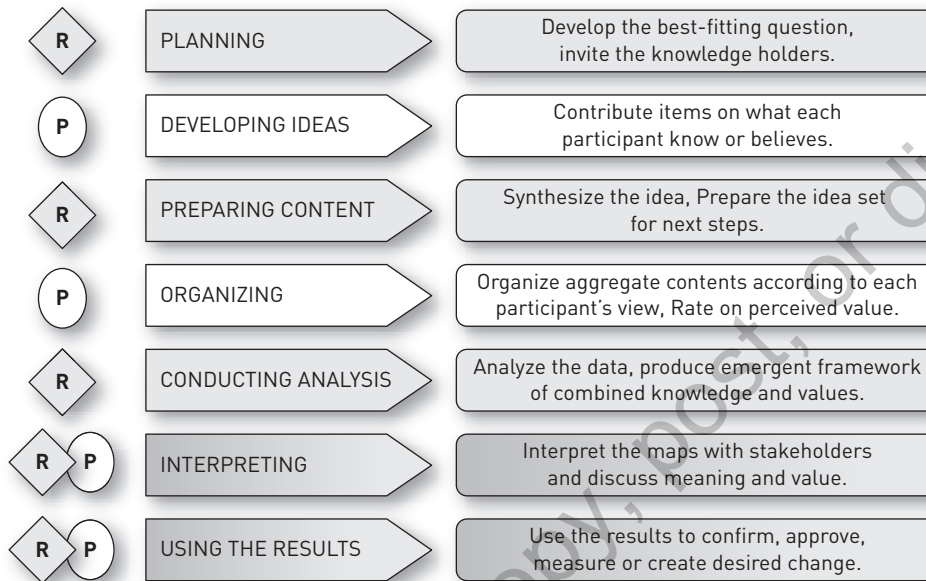
1. Laying the groundwork with an overview of the entire process, with emphasis on roles.
2. Introducing an example of a GCM application in public health policy and action.
3. Focusing on the question and the participants' critical roles in the project.
4. Describing the steps for engaging people and eliciting their knowledge and opinions.

Chapter 3 then demonstrates how GCM converts participant knowledge to data, conducts analysis, and produces results for interpretation and use. The two chapters taken together are a primer for the practice of GCM, ensuring a basic understanding of the steps in the process.<sup>1</sup>

The process itself, which we've refined over more than two decades of daily experience, is a basic approach typically followed for much social and organizational research, as Figure 2.1 shows:

Social researchers will recognize this approach as basic to participant-centered research that is intended to yield usable results. GCM is not mentioned, in fact. But by following some very clear and specific rules, researchers in almost any context unearth and bring to light the underlying assumptions that make up a dynamic knowledge and values environment on virtually any issue. The steps allow us to articulate concerns, preferences, knowledge, and strategies that may be the building blocks of group knowledge and opinion that will eventually lead to a fully informed conceptual framework. In this chapter, we emphasize planning, project design, and participation.

***GCM is a participation-friendly process that allows for many voices to contribute to the same idea.***

**FIGURE 2.1 ■ The Basic GCM Process (P = participants, R = researchers)**


© 2016/2017 Concept System, INC.

## GCM'S SIMPLE RULES: WHAT WE ASK OF THE PARTICIPANT

The basic steps that we take to collect information and knowledge from participants produce results that let us construct a conceptual framework that summarizes the group wisdom of the individuals. As mentioned in Chapter 1, we

- ✓ Ask individuals associated with the issue at hand (who could be program participants, researchers, advocates, community members, and so on) **what** each person thinks. This is idea generation or brainstorming.
- ✓ Ask **how** each person thinks, yielding each person's individual conceptual array of all the ideas that have been captured from everyone involved. This is sorting or organizing.
- ✓ Ask each person what he or she **values** or observes, giving the researcher guidance on the importance, or feasibility, or priority, of each item or idea compared with the others. This is the rating process.

- ✓ Ask each participant some questions about his or her **role** or place in the context that is relevant to the project. These are questions to learn more about the respondents.
- ✓ As we note in Chapter 1, the researcher must always keep in mind the political, practical, and philosophical lenses that we use to ensure our research-planning decisions are aligned with the context, the need, and the desired outcomes when following these simple rules.

## THE RESEARCHER'S ROLES IN GCM

---

A researcher or project team takes the following steps to conduct a GCM project:

- ✓ Design the project.
  - Develop and confirm the **focus prompt**, which is the driver for content development and is used to elicit every statement in a GCM project.
  - Identify and engage **participant knowledge holders** to answer the question, leading them to the focus prompt from each unique perspective.
- ✓ Collect the data.
  - **Collect** and ensure the quality and relevance of the **ideas** captured from the community of participants.
  - **Collect** each individual's feedback on how the **ideas are related** to each other (sorting) and how each person **values** each statement on chosen scales (rating).
- ✓ Analyze the resulting data.
  - Conduct **quality assurance**, ensuring that data align with the stakeholder directions for organizing and rating.
  - Complete the **analysis** and **produce graphical and reporting results** for the client and group to digest, interpret, probe, and arrive at understanding.
- ✓ Interpret and facilitate the utilization of the results.
  - **Support** the adoption of the emergent **conceptual framework** and specific priority areas, leading to **measurable utilization**.

Although the process is straightforward, the challenge for researchers is applying these rules in the usually untidy environment in which needs and knowledge exist. We mentioned the art and science of GCM in Chapter 1. The science is represented in the steps of data collection, analysis, and interpretation, highlighting the inherent mixed-methods nature of GCM, which we explore further in Chapter 9. The art is in shaping the process not only to complete the project successfully but also to create a group understanding of the elements that compose an issue. When a GCM initiative is successful, it produces a truly coauthored knowledge framework. The process of coauthoring

as the sum of individual contributions, ably captured and meaningfully organized, is the key. Thus, GCM is a combination, in true integrating fashion, of qualitative and quantitative tools.

Preparing these steps and carrying them out successfully requires knowledge of the context and desired outcomes, as well as awareness and appropriate sensitivity to both targeted and intervening issues in the context. Armed with that knowledge, researchers are responsible for planning, management, facilitation, and creating capacity to adapt and adjust as the need arises.

## DESIGNING AND CONDUCTING GCM: THE PROJECT PROCESS MODEL

---

GCM is a balance between (often interpersonal) interaction with participants to produce qualitative, context-specific content and a rigorous, stepwise methodology to convert that content into a defensible construct. Expanding on the simple model in Figure 2.1, the timeline sequence of actions we present in Figure 2.2 is the complete basic process for conducting a GCM initiative. As researchers, you will notice that the model is useful in virtually any group- consensus and decision-development effort, whether GCM is the engine or other methods are used to organize and value the perceptions, perspectives, and values of those involved. Here we use it to construct a full picture of a complete GCM process.

## ORIENTATION TO THE MODEL: ROLES IN GCM

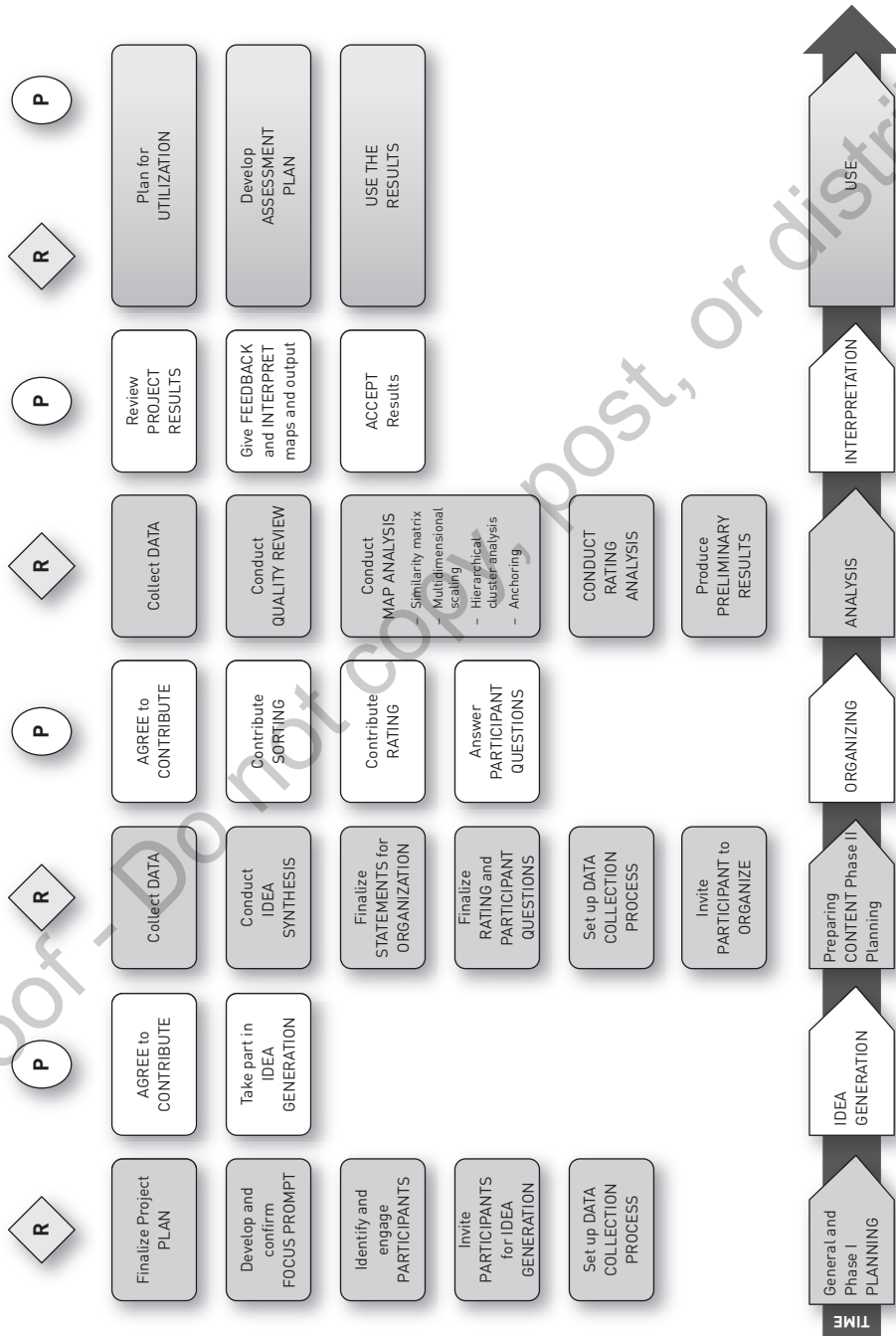
---

In this volume, we refer to the designer or manager of the project as the researcher. The term *researcher* (*R* in Figures 2.1 and 2.2) refers to any individual or team responsible for the successful completion of a GCM project. Project teams may designate specific tasks to specific members or roles, such as managing the overall project, designing and conducting recruitment, or conducting the analysis. Whether the structure of the project is a graduate dissertation for which the candidate is the researcher, or a large-scale evaluation development initiative for which a team of individuals are tasked with the project's completion, the term *researcher* is useful for our purposes.

Throughout a GCM initiative, the team is also responsible for facilitation and participant management. These roles may be part of the researcher's job description, or they may be assigned to others on the team. Project administration—that is, overall responsibility for logistics, timeframes, budget, and other necessary considerations—may fall to the researcher as well in certain contexts. In others, a team member or an administrative staff member may assume these responsibilities.

In general, GCM projects use a team approach to accomplish all the tasks required to complete the process. The design of the team is driven by the context, purpose, and scope of the project, as well as the resources and institutional capacity to support each role.

FIGURE 2.2 ■ The GCM Project Model (R = researcher P = participant)



© 2016/2017 Concept-System, INC.

In GCM the term *participant* ( $P$  in the above model) refers to any individual who takes part in the process at any specific step, or in all steps. The participant is the knowledge source for each project and, in the analysis, the data source unit that contributes to map construction and ratings comparisons.

To guide the reader through the following example, and as a checklist for your own future projects, we include a step-by-step project workbook as Appendix B. You will find it useful to follow the example with the workbook on hand.

## THE GCM PROCESS: AN EXEMPLAR

We thank the staff of the Robert Wood Johnson Foundation (RWJF), especially Dr. James Marks and Dr. Laura Leviton, for permission to demonstrate an exemplar of GCM referencing a project conducted on behalf of the foundation. As background: The Culture of Health initiative is RWJF's flagship national initiative, identifying and supporting systems and capacities to encourage or develop communities where the health and wellbeing of all are valued. This exemplar, completed in 2016, demonstrates all of the activities required to complete a GCM initiative. The use of GCM was thought to be a good fit for the organization's interests because the Culture of Health initiative has prioritized the activation of networks at the community level, as well as nationally, to change the experience of individuals, communities, and the culture in terms of quality and sustainability of health and wellbeing. The project was designed to identify and engage professionals who work within communities, and whose work is relevant to a community's or region's capacity to sustain wellbeing.

In this section, we refer to the project model and concentrate on each column of activity in sequence, and we describe the steps taken in the Culture of Health project to complete each column of activity. The model is structured in phases, starting with planning. A word about roles: in this section, the term *client leadership* refers to the client involvement in project guidance. *Researcher* means the research and project management staff. The term *project team* means the research staff working with client representatives on planning and scheduling.

In a GCM initiative, the elements that must exist before the project can proceed are

1. A well-articulated understanding of the project's purposes and desired outcomes.
2. A clear and tightly aligned focus question or prompt.
3. A well-defined process for identifying and recruiting individuals to take part, aligned with the purposes, desired outcomes, and focus.
4. An appropriate timeline that accounts for the context and any deliverable deadlines, with special attention to time needed for communication and data collection.

These elements form the basis for finalizing the project plan. The logistics of the plan include the following:

## Articulate project purposes and desired outcomes

In GCM, agreement regarding desired outcomes is critical, because it activates the process of discovery, engagement, and outcomes. In our work with clients, we articulate what the project should produce, and how those results should or might be used to benefit the group. We consider the practical considerations of participant understanding and availability within the time allotted, and engagement barriers that we might plan to alleviate. We work with the project leadership to consider potential avenues of support for the project. Often, these discussions take place in the context of a “desired outcomes workshop,” during which we encourage the project leadership to work through the process outlined in the model, to prepare for a successful GCM event. In the RWJF initiative, we were fortunate to have an existing, well-supported structure for the project.

The RWJF leadership provided rich background on the vision, purposes, and desired outcomes of the national Culture of Health initiative as stated by the foundation. The project was one of several simultaneous initiatives that the foundation activated to raise awareness and collect feedback about the vision. The project team, including the client lead and the research team, finalized the objectives and established the communication plans and timelines for the project. For the purposes of this project, the objectives for RWJF were described as follows:

- ✓ To increase understanding of the factors that contribute to a culture of health
- ✓ To learn more about how professionals in a range of careers and fields not related to health are contributing to or creating conditions that support individual, family, and community health and wellbeing
- ✓ To develop networks between the foundation and professionals in communities for the further extension of the Culture of Health vision.

## Develop and confirm the focus prompt

Developing the focus prompt is often an iterative process. The planning group considers the desired outcomes and potential uses of the results as well as advantages and limitations of the context. The focus prompt usually takes the form of a sentence completion prompt that leads participants to contribute ideas that have a single focus and are syntactically similar. It is usually drafted during the early planning or desired outcomes discussion, and tested with a small group of people related to the project to assess its effectiveness in prompting appropriate responses.

Focus prompts may be framed to identify current issues, pose a theoretical question, suggest a “backwards from success” expectation, or articulate values in a context. Some examples of focus prompts illustrate this:

*What are the factors that influence the acceptance and use of evidence-based practices in publicly funded mental health programs for families and children?* (Green & Aarons, 2011)

*A specific activity that the tobacco industry uses to block tobacco control in South East Asia is . . .* (Stillman, Hoang, Linton, Ritthiphakdee, & Trochim, 2008)

*A thing that causes African Americans to get sick more and die sooner is . . .* (Risisky et al., 2008)

The Culture of Health project sought to extend the foundation's knowledge about community health and wellbeing by asking individuals—who were otherwise not typically engaged in discussions about public health—about what would produce health and wellbeing in a community. To focus the brainstorming and produce items that would reflect perspectives on community health, the project team considered the desired outcomes in the context of other active Culture of Health initiatives. The chosen focus prompt was this:

*In a community where people share the view that health is important for everyone, **professionals in my field** would . . .*

This project was part of a larger initiative in which the focus prompt had been used successfully in a pilot. In other projects, it is useful to test the focus prompt, either internally or with potential participants, to determine whether the prompt will generate the appropriate level and volume of ideas from the selected participants.

## Identify and engage participants

In GCM, we talk about deciding on the focus prompt and identifying participants as “number 1 and number 1” in importance to the project; both are critical and are parts of the same requirement. We craft the focus prompt to elicit usable knowledge and opinions at a level of detail that will allow us to build a “saturation” of the topic, but that saturation requires the engagement and participation of a meaningful number of people representing the perspectives needed in the issue at hand.

Engaging participants starts before recruitment. Depending on the project, the participants may already be identified (for example, registered participants in a conference of experts on cancer control may take part in a GCM project prior to the conference), or the project may require active solicitation of specific perspectives not usually sought, such as problem solving for a community policing program. In each instance, the researcher must take the context into account, enlist sponsors or champions to connect to participants, and create clear communications about the project and the potential participant's role in its success. Clarity about participation burden is important at this early stage, since ambiguity or inaccurate estimates of time and commitment required will affect the project.

Interaction between the researcher team and the participants carries the process from stage to stage in GCM. Researchers use tools of all kinds to reach and engage the voices of those sought to contribute. In this project, our interactions with national associations' leadership and staff led to their willingness to invite their members to contribute. Interaction with the members was a high value, because we were able to develop opportunities for heterogeneous idea sharing and discussion among the participants at key stages in the process.



The Culture of Health project actively sought to engage and learn from those not related to public health or health care, so the project developed a structured approach to identify and engage individuals whose professional affiliations or roles would likely connect them to the betterment or improvement of their communities or regions. The project designed and followed a strategy to engage people through their national professional associations, seeking individuals whose professions included sectors like business, community planning, education, grant making and independent learning, and justice. The project team requested support to enroll individuals from 33 professional associations. Eleven associations supported member engagement: the American Public Works Association, the Association of Chambers of Commerce Executives, the Business Alliance for Local Living Economies, the Committee for Encouraging Corporate Philanthropy, the Consumer Electronics Association, the Governance Institute, the International Association of Business Communicators, the National Legal Aid & Defenders Association, the National Small Business Association, the Public Library Association, and the Society for Human Resource Management.

### Recruit participants

Recruiting participants to ensure a range of perspectives requires context-specific approaches for inviting and informing potential contributors. The three key elements of participant recruitment are identifying individuals or groups whose knowledge or position in the context argue for their participation as important data sources; determining the type of group the project requires; and designing appropriate communication approaches and language to encourage their engagement. Most GCM projects take advantage of existing interest groups, like academic and research cohorts who are using GCM to pose a public health question, or a community of parents and teachers working to improve a school. Some researchers apply sampling techniques to arrive at representation of a population; this may be for design reasons, or to take into account the large size of the population of interest.

Because the Culture of Health project sought voices from a range of associations, the project team hoped to engage many different perspectives rather than recruit large numbers from only a few of the identified associations. The project team drafted brief descriptions of the project's goals and activities. Each association's leadership supported the engagement of their members. In some cases, association leadership permitted direct communication with members, and in other associations, the association administration communicated to its members. Individuals self-identified as interested in the topic and in participating.

In this initiative, it was decided to conduct brainstorming focus groups in addition to the typical approach of independent brainstorming electronically. The project team agreed that an opportunity for participants to connect voice-to-voice with others would serve several purposes. It would

- ✓ Allow people to contribute without the need to go to the website (although many contributed both via focus group and the website).
- ✓ “introduce” the perspectives of each profession, as expressed by members, to others in different professions.
- ✓ Lay the groundwork for greater interest in the project.

Invitations to the project and to brainstorming included invitations to both the focus groups and to the website for independent idea entry. The processes used to engage participants in each step of GCM are outlined in the participant activities phases of the project model.

At the planning stage, the project team discussed the question of participant identification, anonymity, and confidentiality. These are often critical decisions, especially in high-risk environments or in corporate contexts in which identification can lead to challenges. Depending on how data are collected at each GCM stage, the participants may be identifiable (as in a community forum), self-identifying, or anonymous. In this project, participants accepted invitations to virtual “live” sessions where they agreed to speak as identified participants. For the sorting and rating activities, the process was designed for individual password use, in case the individual participant preferred confidentiality.

### Set up the data collection process

Thus far, the tasks to begin the project are consultative and managerial in nature. At this point in the process, we consider the participation and data collection logistics for the project, and for the brainstorming phase specifically. The tasks for the researcher shift from fairly standard recruitment and participation planning to activating communication and data tools to ensure that high-quality data are collected. For data collection in this project, researchers used The Concept System Global MAX (2016) web-based platform, which supports engagement in a GCM project via dedicated web pages.

The GCM process has three major elements that are integrated in the Concept Systems software—the project management requirements, the data collection platforms, and the analysis and production tools. Other tools are readily available that support the researcher in completing many of these tasks as well. Appendix C contains information about tools and technology for conducting group concept mapping activities, including some suggestions for content analysis.

In a GCM project, the data collection tools are customized to reflect the project, using clear and relevant language that participants will understand, and simple instructions for contributing input are necessary. For Culture of Health, the researchers defined the project in the database with unique identifiers and constructed a data capture page for the idea generation, or brainstorming.

Defining the project in the database includes these steps:

- ✓ Assigning the project name, and assigning administrators to allow other team members to input or manage the data at each step.
- ✓ Developing the participant list. Depending on the project, the participant list can be started at the planning stage and edited as the project proceeds, since participants may be added at each step in the process.
- ✓ Drafting and entering welcome language and instructions for brainstorming to ensure that each participant has a successful event.
- ✓ Entering the focus prompt and linking it to the brainstorming page.

Once the focus prompt for our project was finalized and the recruitment for contributing participants was underway, the project team set up the data collection modules to capture the content.

## IDEA GENERATION

Idea generation is the first project event for the participant after agreeing to participate, and the first data collection event for the researcher. Having constructed the focus prompt and developed an acceptable participation cohort, the researcher usually communicates with participants to provide specific guidance for participating. Invitations can be to individuals or to a group or community. The researcher offers options for participating appropriate to the project and the cohort—whether through face-to-face meetings, the web, some other approach, or a combination of approaches. The way the ideas come into the project doesn't matter, as long as the processes are aligned and there are quality assurance safeguards.

### Agree to contribute

After the Culture of Health project team defined the parameters of the project (the objectives, focus prompt, participants, and timeline) it was time for participants to take part in idea generation. The project team invited the volunteer participants from the associations to join the process.

The recruitment process for this initiative relied on researchers' investigation of professional associations whose members, though unrelated to public health, would likely have an interest in the health and wellbeing of communities or regions. Once members agreed to take part, the project team invited them to attend webinars designed specifically to foster their awareness and encourage input. The project team scheduled eight focus groups and made the decision to open any focus group to any participant, rather than conducting profession-specific focus groups. We began such "cross-talk" during idea generation, and reinforced the importance of interaction throughout the project.

### Take part in idea generation

Idea generation can take many forms. The most common is simple focus prompt-driven contributions from several individuals. The process can be either through a face-to-face meeting, a virtual focus-group discussion, independent participation via a website or listserv, toll-free phone access, or any combination of these, and more. In some projects, the researcher may use existing item sets, such as in the development of a theoretical model where scientific components are used as items (Goldman et al., 2015).

For each focus group, the Culture of Health research team prepared a welcoming general overview of the project and its objectives, introduced the attendees to each other, and posed the focus prompt to begin the discussion. The research team captured verbatim content with two scribes for verification. The idea generation step of the process, with the eight focus groups, took place over seven weeks.

## DATA DEVELOPMENT AND PHASE II PLANNING

---

The tasks for data development and next-phase planning take place simultaneously, in consultation with the client leadership. The researcher manages the data collection and prepares the project team for sorting and rating. Data collection is a researcher-managed process, and requires tracking and quality assurance.

### Collect data

For Culture of Health, 58 participants took part in the focus groups, and about 60 contributors (some of whom were also focus group participants) used the brainstorming web page to enter ideas. The brainstorming website was open during the entire period of focus group conduct (seven weeks), and 578 ideas were collected via the focus groups and independent brainstorming. The large number of statements is not unusual; because the process allows virtual participation from anywhere at any time during the brainstorming phase, the number of items for nearly every project that seeks a range of feedback is very large. In this project, the fact that eight focus groups were conducted, with content redundancies across them, contributed to the large statement set. Over the course of seven weeks, the dedicated website was also open for anonymous idea contribution.

### Conduct idea synthesis

As a rule, GCM as a social research tool operates well when the set of statements is about 100 or fewer (Kane & Trochim, 2007). However, larger original statement sets are the norm with the adoption of web-enabled data collection tools. The quantity of data from large numbers of statements from brainstorming and other content identification approaches challenges some invitees to perform sorting and rating and could inhibit participation (Rosas & Kane, 2012). To produce a well-informed set of items that represent the body of knowledge from idea generation, we conducted a qualitative review and “synthesis” of the content, focusing on inclusion, understandability, and breadth.

Idea synthesis is an approach we have developed to support analysis of the content and the decision process to reduce the number of statements while maintaining “saturation” of the topic. The objectives of idea synthesis in GCM are to ensure that the set of ideas that forms the core of the project is manageable for the participants and that all ideas are clear and understandable to all stakeholders who will be asked to sort and rate them. The idea synthesis used in the Culture of Health project was a multistep, systematic process designed to facilitate the review and selection of a final set of statements. First, researchers identified “keywords”—specific words, usually nouns, that appear in the original statements. These verbatim keywords were then assigned a code word—a broader term under which several keywords were organized. This keyword-codeword framework enabled the researchers to structure and review hundreds of original statements easily, and facilitate a decision process for selecting

a final set of statements for sorting and rating. Two researchers reviewed the code-word categories, selecting statements that best captured the variety of keywords, and made recommendations to the project team as to which statements to retain. As the selection process proceeded, the researchers deleted redundancies, split multifocus statements, and edited for comprehensibility and syntactic similarity, to allow easier sorting and rating. The process yielded a final set of clear and relevant statements that were representative of the entire body of content generated through the brainstorming process.

Because individuals respond from their own perspectives to the focus prompt, it is common for items or statements to contain more than one main concept. It often happens that redundancies are present, especially when the ideas are collected in a distributed way, as in asynchronous group meetings, or a combination of live content collection and the use of an online tool. To guide decisions in idea synthesis and editing, researchers review each statement, organized by keywords, and ask: Will a participant be able to *rate* that item? Asking that question allows the researcher to make judgments about the understandability and focus of the statement; if it is “rate-able,” it is likely that the statement has one main idea, is in (somewhat) plain or appropriate language, and answers the focus prompt. An example of a less rate-able statement might be: *Build more public-private partnerships so people can travel and recreate while moving their bodies*. The statement clearly suggests a response to the focus prompt but would benefit from editing to make it possible for a participant to assign a value rating on importance, for example.

There are many tools and approaches available for qualitative content analysis that are appropriate to this step in the process. In certain projects, we have used keywords-in-context analysis or NVivo qualitative analysis software for idea reduction. Appendix C contains information on some technical tools that can be used to conduct qualitative content analysis to reduce the number of items in a statement set.

## Finalize the statements

After the Culture of Health researchers processed the content in this way, the project team met to discuss, edit, and confirm the set, to make sure that

- ✓ The list contained *unique* ideas, with *only one* idea represented per statement.
- ✓ Each statement was *relevant* to the project focus.
- ✓ There was a *manageable number* of statements for sorting and rating.
- ✓ All statements were clear and understandable, and rate-able.

The final confirmation meeting requires concentrated focus on the content. A final confirmation meeting with the project team may take up to four hours to complete an idea synthesis, in addition to many researcher hours in advance. Shortchanging this step can have noticeable effect on the quality of the content, so we try to be very clear with the client team regarding the time and attention required.

## Finalize ratings and participant questions

Typically, we begin defining ratings and participant questions during the desired outcomes discussions that take place in the early planning stages—as early as possible, in other words. The decisions the project team should make about ratings and demographics are guided by utilization; how is this project to be used, and by whom? What values are necessary for us to measure, to help us decide on ratings? What categories of participants will be most useful to lead to common perceptions or differences that will increase the project's value and utility?

In preparation for the sorting and rating events, the Culture of Health project team reviewed the draft rating scales and the participant questions that had been proposed in the project planning stage. Confirming the ratings, the project team agreed that all participants would be asked to answer the following:

“On a scale of 1 to 4, please rate how relatively important you think each idea is to supporting a culture of health.”

“On a scale of 1 to 4, please rate each idea individually on the extent to which you think the geographic community or area where you work currently demonstrates the idea in practice.”

**FIGURE 2.3** ■ Sorting Data Collection Page for the RWJF Culture of Health Project

The screenshot displays the RWJF Culture of Health Group Concept Mapping Project software. At the top, the Robert Wood Johnson Foundation logo and the project title are visible. The interface includes a toolbar with options like 'Project Home', 'Instructions', 'Create a pile', 'Save', 'Arrange all', 'Minimize all', 'Maximize all', 'Edit pile name', and 'Switch to'. On the left, a list of 'Unsorted statements' is shown, including: 'make complicated health plans and insurance easier to understand, navigate, and use...', 'encourage more medical-legal professional partnerships to assist in patient coverage for people at-risk.', 'activate multisector commitment to address the serious violence issues in communities...', 'address chronic stress of poverty by building equitable systems of support...', 'develop a community's sense of outrage around disparities..', and 'include different life, cultural, and socio-economic sectors of the community in discussions/decisions regarding how best to create equitable opportunities for health.'. Two floating windows are open: 'Business Pile' and 'Educate Youth'. The 'Business Pile' window contains statements such as 'include corporate wellness as part of a community or regional initiative, recognizing businesses that promote workplace wellness.' and 'encourage community employers to provide a livable wage to increase the security of families.'. The 'Educate Youth' window contains statements like 'integrate nutrition and gardening into core standards for school curriculums.' and 'fund early literacy programs for children and families, and track early-childhood literacy changes.'. At the bottom, there are buttons for 'Business Pile' and 'Educate Youth'.

Participant questions for this project asked participants to self-identify regarding field or profession, years in their profession, and geographic location by region.

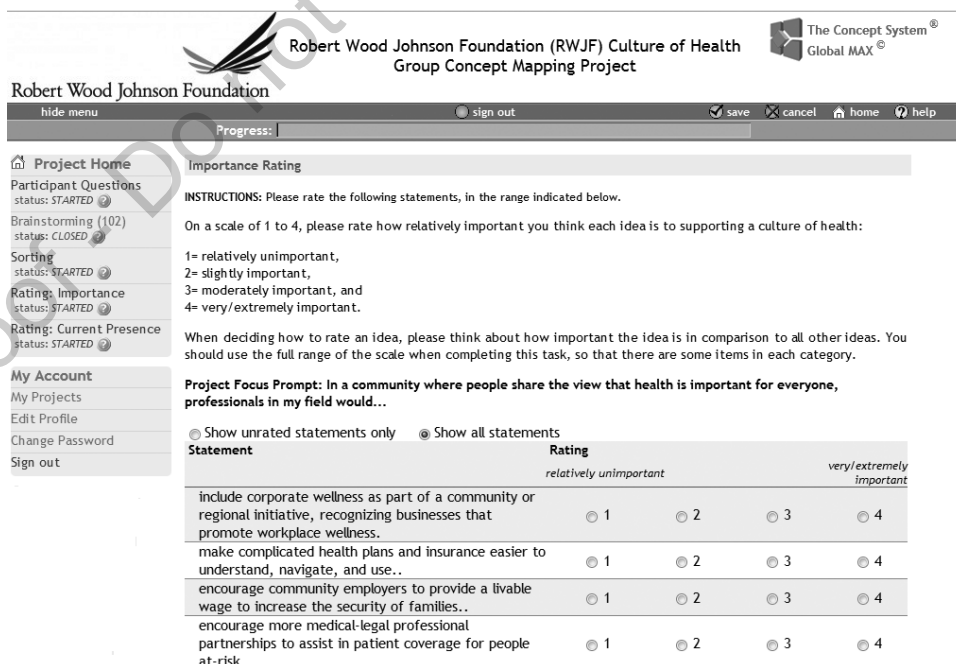
### Set up the data collection process

With the final set of ideas in hand, researchers turned again to the database framework to prepare for the important participant tasks of sorting and rating. Using the final set of ideas from the brainstorming activities and the idea synthesis process, researchers structured the database to allow participants to see all 102 final statements. The data collection pages (screenshots are shown in Figures 2.3, 2.4, and 2.5) relevant to the sorting and rating steps in the process were the sorting page, the ratings pages, and the participant questions page. Using the decisions made by the project team, the researchers inserted instructions for each activity and the forms needed to complete the tasks.

### Invite participants to sorting and rating activities

The process of inviting participants to the sorting and rating stages is typically the same process used for idea-generation invitations. In some large projects, the researcher team may decide that inviting a subset of interested participants to sort, and inviting

**FIGURE 2.4 ■ Rating Data Collection Page for the RWJF Culture of Health Project**



**FIGURE 2.5 ■ Participant Questions Data Collection Page for the RWJF Culture of Health Project**

Robert Wood Johnson Foundation (RWJF) Culture of Health Group Concept Mapping Project

The Concept System® Global MAX®

Robert Wood Johnson Foundation

hide menu sign out save cancel home help

Progress:

**Project Home**

Participant Questions  
status: OPEN

Brainstorming (102)  
status: CLOSED

Sorting  
status: OPEN

Rating: Importance  
status: OPEN

Rating: Current Presence  
status: OPEN

**My Account**

My Projects

Edit Profile

Change Password

Sign out

**Participant Questions**

These screens contain a series of questions that will be used as part of the project analysis. This information will not be used to personally identify you. Follow the instructions to respond to each question, then select the *Continue* button to continue or *Cancel* to exit.

Please select the location which you are most closely associated with from the choices below:

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky

all participants to rate, will serve the project. Decisions about sorting participation are practical, political, and philosophical. What number of sorters do we need to produce a stable result from the analysis? Rosas and Kane (2012) indicate that, practically, about 30 is adequate, but both politically and philosophically there may be other reasons to include more sorters in the process. On the other hand, we find that participant commitment to sorting decreases the further away a participant is from the center of the issue (for example, staff in a partner agency compared to a principal investigator in the network). Additional sorters add value in many ways, but because sorting is the greatest burden to participants, researchers can make such a design decision appropriately.

The Culture of Health project team invited all brainstorming participants to rejoin the project for all the next steps. In this project the team conducted “how to sort and rate” webinars several times to increase participants’ comfort and confidence in taking part, and to create another opportunity for interaction between the research team and the participants, and between the participants across associations as well. These how-to webinars were ten- to fifteen-minute tutorials on the steps in the website that enabled respondents to contribute their perceptions about how the ideas were related, contribute their ratings, and answer the respondent or demographic questions. An important part of the communication throughout the project was to support participation within the allotted time, and the project team was encouraged by the response to the request for participation.



## ORGANIZING

---

The organizing stage in the model puts the process back in the hands of the participants and asks them to sort the ideas from brainstorming and rate them on scales that matter to the project.

### Agree to contribute

We estimate that about 85 individuals took part in the brainstorming phase of the project. The project invited 139 to the second activity, and 37 participants took part in one or more of the organizing activities. This is consistent with participation findings (Rosas & Kane, 2012), and the how-to webinars may have helped to support participation.

### Contribute sorting

As mentioned above, the ways to collect content from the sorting and rating activities vary, and researchers can use one approach only (such as web-based participation) or use several participation modalities. Depending on the needs of the project, a researcher may invite some people to face-to-face meetings and others to the web pages.

Regardless of the means, participants generally receive basic instructions for sorting in this context, which include the following:

- ✓ Group the statements for how *similar in meaning* they are to one another. Do not group the statements according to how important they are, how high a priority they have, et cetera. Another part of the process will ask you how important you believe each idea is.
- ✓ There is no right or wrong way to group the statements. You will probably find that you could group the statements in several sensible ways. Pick the arrangement that feels best to you.
- ✓ People differ on how many piles they wind up with. In most cases, anywhere from 8 to 20 piles usually works out well.
- ✓ Each statement must be put into only one pile. A statement may be put alone as its own pile if you think it is unrelated to all the other statements or if it stands alone as a unique idea.
- ✓ Please do not have any piles of “miscellaneous” statements.
- ✓ Make sure that *every* statement is put somewhere. Do not leave any statements out. (Concept Systems, Inc., 2016).

Each participant who sorts also develops “cluster names” for each of the groups or piles of ideas that he or she was developing to represent how he or she thought of the ideas’ meaning connections. This additional clarification from participants allows us to have good guidance on the territories of the map when we arrive at the analysis phase.

Each Culture of Health participant who accepted the invitation to sort logged into the web page for sorting and was prompted with specific instructions that asked each person to organize the 102 ideas into groups or piles based on the meaning of each idea and how that idea was related in meaning to other ideas among the 102 items. The web page allowed each participant to construct his or her own conceptual framework, conducting an independent, open, unstructured sort of the ideas. The process allowed each person to create groups of ideas and name those groups. Recall that the resulting set of statements was from all input from all focus groups and all items contributed via the web, and then synthesized for manageability. In this way, individuals from all represented professions were considering and making decisions about ideas from others in other represented professions, many of whom they had never met, even virtually. It is in this way that GCM constructs the possibilities for group wisdom, even when individuals are not organizationally or otherwise related.

The sorting database structure allows a review of participation, and it showed that of the 37 people who agreed to participate in this part of the process, 34 completed sorting of all 102 statements.

### Contribute rating

The rating activity collects values or observations from participants. Instructions are simple and differ from one project to the next, depending on the questions being asked. In most GCM projects, we pose the question of relative importance as the first rating. The scale is a Likert scale, usually consisting of four or five rating values. We recommend making each rating value in the scale distinct from the other data values, so that a participant can rate the items and make some distinctions among them. Typical instructions ask the participants to

- ✓ Consider each item in relation to the other ideas when rating it.
- ✓ Use the full range of the rating scale if possible.
- ✓ Avoid rating everything with the same number. (Concept Systems, Inc., 2016).

In this project, participants were asked to rate on two scales: relative importance and relative presence in their context. The data collection pages use radio button interfaces, and each rating is a separate page to reduce the relationship effect between ratings.

The instructions were as follows:

**Relative Importance:** On a scale of 1 to 4, please rate how relatively important you think each idea is to supporting a culture of health:

- 1 = relatively unimportant
- 2 = slightly important
- 3 = moderately important
- 4 = very/extremely important

**Current Presence:** On a scale of 1 to 4, please rate each idea individually on the extent to which you think the geographic community or area where you work currently demonstrates the idea in practice, where:

- 1 = I never see evidence of this idea.
- 2 = I rarely see evidence of this idea.
- 3 = I very often see evidence of this idea.
- 4 = I always/every day see evidence of this idea.

Fairly often in GCM, a larger number of participants complete the first rating, and fewer stay to complete the second (Rosas & Kane, 2012). Participant “drop-off” is common in social research, whether the second requested data collection activity is to take place immediately following the first or there is a time lag between requested data collection points. In this project, 35 participants completed Rating 1, and 31 participants completed Rating 2.

The last information the project asked for was the responses to three demographic or respondent questions mentioned above. The project structure uses a separate page to collect this information, but all content that the participant provides is linked in the database.

The questions the researchers asked were these:

1. Please select the location you are most closely associated with from the choices below.
2. How many years have you been involved in your profession?
3. Which association are you affiliated with?

## A SAMPLE OF A SORTING AND RATING

---

In the Culture of Health project, 34 individuals used the web page to contribute their thinking on how the 102 ideas were related to each other in meaning. Table 2.1 is a partial list of the 102 statements.

The task that each participant conducted was to consider each item in relation to all others, to determine “meaning” fit. Figure 2.6 shows an example of how one person may have sorted these few items according to her perception of their meaning relationship.

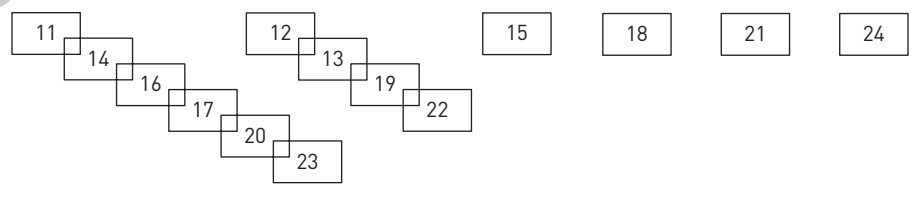
Our participant also rated the items; Table 2.2 is a snapshot of the importance rating.

In the next chapter, we illustrate the entire analysis process, using the data that each person has contributed during the simple steps of telling us what they know or believe, organizing their way of thinking about all the items together, and valuing them on importance and presence in their environment. The resulting graphical displays and reports are the foundation of GCM. In Chapter 3, we also demonstrate how results are produced and consider key aspects of interpretation for utilization of the GCM results.

**TABLE 2.1 ■ Statements 11 Through 24, of 102, in the RWJF Culture of Health Project**

11	Invest in professional community health workers and patient advocates who can address social determinants of health.
12	Provide support and resources to those with less education, or with lower literacy.
13	Recognize the challenges that members of the community face when they live in unsafe areas or uninhabitable structures.
14	Encourage health providers to take advantage of their public library’s health-related knowledge base and encourage their patients to use it.
15	Work to reduce prescription drug advertising.
16	Disseminate knowledge about best practices on wellness in addition to health.
17	Work with housing, schools, community organizations, and businesses so that health messaging is incorporated even if it is not the main focus of the sector.
18	Encourage physicians to prescribe physical activity and outdoor recreation to increase mental and physical wellbeing.
19	Support a living wage so parents can sustain a family.
20	Advocate for health as a core subject so it is not omitted from the school curriculum.
21	Demystify and destigmatize reproductive health and birth control.
22	Have complete streets or transportation safe for people to travel independently, from age 8 to 80.
23	Creatively connect through existing community pathways and systems to inform and communicate about healthcare and health literacy.
24	Eliminate legal barriers that work to limit access to health and healthcare.

**FIGURE 2.6 ■ An Example Sorting of the Items in Table 2.2**



**TABLE 2.2 ■ Example of Rating on Each Item**

#	Item	Importance
11	Invest in professional community health workers and patient advocates who can address social determinants of health.	4
12	Provide support and resources to those with less education, or with lower literacy.	3
13	Recognize the challenges that members of the community face when they live in unsafe areas or uninhabitable structures.	4
14	Encourage health providers to take advantage of their public library's health-related knowledge base and encourage their patients to use it.	3
15	Work to reduce prescription drug advertising.	2
16	Disseminate knowledge about best practices on wellness in addition to health.	3
17	Work with housing, schools, community organizations, and businesses so that health messaging is incorporated even if it is not the main focus of the sector.	3
18	Encourage physicians to prescribe physical activity and outdoor recreation to increase mental and physical wellbeing.	4
19	Support a living wage so parents can sustain a family.	4
20	Advocate for health as a core subject so it is not omitted from the school curriculum.	3
21	Demystify and destigmatize reproductive health and birth control.	3
22	Have complete streets or transportation safe for people to travel independently, from age 8 to 80.	2
23	Creatively connect through existing community pathways and systems to inform and communicate about healthcare and health literacy.	3
24	Eliminate legal barriers that work to limit access to health and healthcare.	4

## Notes

1. For a practicum on conducting GCM, the reader is encouraged to review Kane and Trochim, 2007.

Draft Proof - Do not copy, post, or distribute