Online GMB: Challenges, Opportunities, and Barriers

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Group model building (GMB) is a participatory process for convening stakeholders to develop maps or models to understand sources of systemic problems. The Community Based System Dynamics (CBSD) tradition emphasizes an investment in capability development in communities in the process of co-creating models, creating shared insights and common language, and ultimately developing insight to mobilize and build consensus around action. GMB has several features that set it apart from other participatory methods, including the use of system dynamics principles and the management of maps and models as boundary objects (visual representations that all participants feel they can modify or revise).

For GMB to work, participants must feel comfortable to engage fully, share openly, and contribute to the model. The development and implementation of workshops, typically held in-person, include features that attend to these considerations. A standard in-person GMB workshop likely uses scripted activities to facilitate engagement and generate system insights (See Scriptapedia for examples of such activity “scripts”). These activities require the use of materials such as flip chart paper, markers, stickers, blue tape, and colored paper. When designing in-person workshops, workshop planners consider the use of the physical space to facilitate participation and engagement.

The COVID-19 pandemic ushered in the new reality of remote working and learning, forcing group model building practitioners to make an abrupt shift to online workshops. Like our peers, the Social System Design Lab (SSDL) at Washington University in St. Louis confronted this challenge by exploring what tools existed for adaptation and continued collaboration. The shift has not been easy, but it has revealed new insights that suggest areas to leverage the strengths of online GMB long after the pandemic comes to an end.

The purpose of this brief is to provide some general points of comparison between in-person and online group model building and introduce challenges and opportunities that practitioners in the SSDL have faced when translating workshops to online spaces.

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Specific contributions for each author are as follows: a: conceptualizing; b: writing; c: providing feedback; d: revising
space (e.g., how participants are seated and grouped, where the artifacts from activities are posted, etc.) and the choreography among the facilitation team (e.g. where the notetaker will sit, how the facilitator and the modeler work together, whether there a runner or wall-builder during certain activities, etc.).

In online GMB, the foundational features may remain the same, but the design decisions are different. Instead of discussing the use of physical space, teams might be discussing how to leverage Zoom breakout rooms. Instead of making a list of the materials and office supplies planners need to purchase, they may instead be choosing which online tool will maximize engagement in a particular activity—Miro? Jamboard? Mural?, etc. While it is possible to maintain the key elements of GMB in an online setting and, in some circumstances this may provide advantages that are unavailable in in-person workshops (and vice versa), it is important to account for the unique benefits, challenges, and barriers to participation in and facilitation of online GMB during the design process.

+ BENEFITS OF SHIFTING TO ONLINE GMB

- **Wider reach**: Online GMB removes barriers to participation such as travel, childcare, time and energy.
- **Reduced costs**: Online GMB eliminates the need to pay for physical materials, venue, food for participants, transportation compensation, etc. This presents an opportunity to reallocate funds that would be spent on travel to equip folks with access to computers, electricity, hotspots, etc.
- **Visuals and demonstrations**: Online platforms encourage clear communications about instructions in multiple formats, including verbal instruction, written step-by-step instructions, and even live or pre-recorded demonstrations that may be accessible to participants pre-session or even when working breakout rooms. Tools such as screen-sharing and online collaborative platforms make it easy for a facilitator to incorporate visual elements into their facilitation. This shift can benefit all participants, but especially visual learners.
- **More options for engagement and participant management**: Online GMB offers multiple avenues for managing participant contributions, including hand-raising tools, group chat, direct messages, digital whiteboard spaces, and verbal contributions. Multiple approaches allow online facilitators to reduce domination from the loudest voices, and create alternative methods for shy, uncertain, or otherwise marginalized voices to meaningfully and equally contribute. These options can bring in new voices in a way that in-person sessions may not.
- **Additional accessibility features**: Online tools such as Zoom provide accessibility options such as live captioning and translation features that reduce certain barriers to engagement in sessions.

+ CHALLENGES (AND BARRIERS) OF SHIFTING TO ONLINE GMB

- **Difficulty in “breaking bread” together**: An effective GMB session requires that participants feel open and supported in sharing their perspectives. In in-person convenings, much of this relationship-building happens in the in-between times: grabbing coffee, chatting before an activity starts, sharing a meal, etc. While it’s certainly possible to get to know others over virtual platforms, it’s difficult to create these informal moments of connection among participants and between facilitators and participants.
- **Barriers to observing and disrupting harmful group dynamics**: Whenever you bring groups together, whether in-person or virtually, there is a risk of unequal power dynamics among participants based on status, identity, role, etc., which can hinder participation. In-person, there are strategies to
disrupt these dynamics: observing non-verbal communication of participants, encouraging all participants to “hold a marker” during modeling activities, using body language and physical distance to send signals about participation, or pulling somebody aside to check in one-on-one. In a virtual space, it’s more difficult to pick up on problematic or harmful group dynamics and to intervene, especially when participants have the ability to turn off their cameras or log-off at any time.

- **Zoom Fatigue:** Many of us are all too familiar with Zoom fatigue – the feeling of exhaustion and burnout from time spent on video calls. Online meetings can be more draining than in-person meetings, and therefore require more frequent breaks and shorter meeting lengths. It is far more difficult to maintain engagement in three-hours over Zoom than it is in-person. There are various strategies to overcome this challenge in online GMB -- by providing asynchronous options for engagement or creatively using breakout rooms, for example -- but it is a challenge, nonetheless.

- **Technical skills required to facilitate:** While there are lots of options for creating engaging, effective virtual workshops, many of these options require knowledge of various virtual platforms and tools and skills in technology and online facilitation. However, the skills that make an effective GMB facilitator are not necessarily the same skills that make an effective facilitator of online meetings. In online settings, there is an increased cognitive load on the facilitator to manage modeling, group dynamics and technology at the same time.

- **Technical skills required to participate:** Technology can reduce engagement if participants are uncomfortable or new to the technology itself. If this is the case, and some participants withdraw or feel self-conscious, this could lead to a situation where the workshop results in a model that represents only the perspectives of those with the most computer literacy, and silences the perspectives of those with the least. Additionally, putting something on a screen or in software can make an idea seem official or final in a way that sketching something with markers on a piece of colored paper does not.

- **Access Barriers:** While the shift to online expands the reach of GMB in some ways, it also presents new, resource-related barriers to consider:
  - **Internet-related barriers:** Will limited bandwidth or poor connectivity stand in the way of participation? Will expenses related to electricity, internet connection or software need to be covered?
  - **Technology-related barriers:** Do all participants have access to a webcam? Will participants be using mobile phones, tablets, or laptops? Do their computers have the system requirements for the modeling software or collaborative platforms that the workshop will use?

**CONSIDERATIONS**

Teams that are planning GMB workshops should take the time to discuss the goals of a workshop and consider what components can or should take place in person versus online. Based on the experience of the Social System Design Lab, it isn't clear that one type of meeting format is always better or definitively more appropriate than the other, just that once a format choice has been made, it is helpful to have a clear idea of the facilitation considerations one needs to make in order to achieve a valuable experience for workshop participants and to facilitate the creation of meaningful system insights.
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Social System Design Lab Methods Briefs are short, digestible notes on applications of system dynamics and systems thinking in community settings. They are meant to capture and share out our current thinking on core ideas related to the practice of system dynamics modeling in community and organizational settings.

“Series 2: Online Group Model Building” focuses on sharing reflections and lessons learned from a year of experimenting with, testing, and facilitating online group model building workshops during the COVID-19 pandemic. Briefs in this series include:

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- Facilitation Team Roles in Online GMB | 2.03
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