

## The Built Environment: Exploration toward a New Paradigm

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### Abstract

*For most businesses, group work is the way in which ideas are given voice. In this study, ethnographic research was conducted to explore group work and the environments in which it occurs. The research provides context for architects and designers who are conceiving improvements or reinventing the ways the built environment (e.g., furnishings, décor and architecture) influences the outcome of group activities. The research took place in two phases; phase one sought to develop a set of observable hypotheses and phase two sought to validate the hypotheses through observation. In the first phase “embedded reporters” were recruited from Herman Miller and Gensler staff to serve as observers of their own group work and to report on idea flow, knowledge transfer, size of groups, reasons for working together, stage of process, etc. During the second phase of the study, an ethnographic researcher shadowed a “hub” person skilled in group work for 1 – 3 days and observed group work behaviors. A second researcher with architectural experience documented the spaces where the observations took place. Same time / same place interactions are most important when meetings are highly staged or highly urgent. The intangible aspects of communication such as emotional comfort and group dynamics add value that is integral in these situations.*

### Introduction

To inform next generation design of group work environments, Gensler (a global architectural firm) and Herman Miller (an environmental furnishings company) conducted a joint research project. The goal, in part, was to understand the variety of group work needs so that environments may be tailored to support an array of collaborative and cooperative behaviors. A basic underlying assumption of the work was that group work places that are well-designed allow for cleaner, clearer communication. Since group work is primarily, if not

exclusively, about communication, designing places that enhance communication is an essential part of “being heard.”<sup>1</sup>

## **Background and Purpose of the Study**

The primary goal of this study was to more deeply understand the context of collaboration. Herman Miller and Gensler, both experts in their own domains of the built environment, had not previously worked closely in collaboration. The research study was to provide an experiential opportunity for the two companies to collaborate. The research was intended to provide deep context to both companies and also serve a value-added function of allowing the companies to experience each other’s collaborative process. In this way the study was a mirror image of what was being examined – place being both a platform for meetings to occur and place as adding value in addition to the content of the meeting.

The research design assumed that the application of the contextual findings would serve a diversity of design needs. The study needed to explore the attitudes and behaviors related to collaboration so that the learning could be applied to both architectural and furnishings designers. Rather than prescribe specific product development ideas (e.g., “incorporate drop-down tables in hallways for spontaneous group interactions”), as a context study, the output was intended to address issues such as:

- Why aren’t meetings obsolete?
- What makes effective meetings?
- How can space improve the ratio of good meetings to bad?
- What would collaboration look like if we hadn’t inherited conference rooms as our default?

## **Methods**

The study was designed to allow input from an array of audiences. We sought to put in place a structure for informing design innovation while allowing for optimal discovery and exploration. In the first phase, primary emphasis was to leverage workplace experts to help develop a set of hypotheses that could be validated through observation in phase two. In the second phase, the ratio of expert to “typical” respondents was inverted. Companies, and the individuals shadowed within those companies, were recruited from those not necessarily skilled in workplace design, but who strongly depend upon group work to function.

Before the research began, a definition of group work was agreed upon: when three or more people were meeting, with at least two or more of them in the same time and the same place. This eliminated groups from the study where the physical environment was either not essential (e.g., exclusively teleconference) or where interaction was not a key component

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<sup>1</sup> Designed environments can augment knowledge transfer by “renewing the importance of decidedly low-tech practices” such as spontaneous encounters and cross-team interactions. (Levine & Gilbert, 1998)

(e.g., resource areas where information may be exchanged in the same place, but not at the same time).

### **Phase 1: Embedded teams**

Herman Miller and Gensler team members turned the mirror on themselves to develop hypotheses around group work. Team members, working on their own projects served as embedded reporters for how and where group work in general (and idea flow and knowledge generation in particular) is currently working, or not. As experts in the built environment, the Herman Miller and Gensler team members were already hyper-aware of how the physical environment exerts influence. The goal was to focus this knowledge specifically on group work and learn from real-life situations. A researcher from ddeasy inc worked with the participants, using probing and questioning to download data and sharing key insights with other participants. Questioning such as “what if projection becomes portable?” or “how does porosity influence group work?” allowed the reporters to combine observation of behaviors with their expertise to help develop testable hypotheses.

A total of 12 Herman Miller and Gensler team members were asked to simply pay attention to their behaviors as part of their normal group work activities. Each participant was given a register sheet and asked to record their meetings including duration, number of people, place, type of content (e.g., information download, knowledge sharing, knowledge creation, etc.). Some people, when appropriate and convenient, took digital photos of the meetings places and sent those to the research team via email. A ddeasy inc moderator contacted the team members once every week for a three week period, conducting a 15 – 20 minute interview to discuss what group work was like, what was happening in terms of communication and how and when people decided to meet. Additionally, four depth interviews (1 hour each) were conducted at the conclusion of the reporting period (with a mix of younger and older workers) to explore specific place requirements.

Although a brief discussion guide for the touch-base calls was used and shared with team members, download calls were highly conversational and driven by the observations and insights from that week. The process allowed team members to bring their expert insight to the study and for research to aggregate and translate the insights into hypotheses.

The reach of the learning depended upon who from the Herman Miller and Gensler teams participated, so team members were from different functions (e.g., sales, research, design, account management, project management, administrative, etc.) to provide a breadth of observation feedback. Age, geographic and cultural input was likewise balanced.

This initial phase was intended to be very exploratory and key insights were identified by anyone participating. The core team, most of who did not participate directly as observers, got updates on a weekly basis and also helped to raise areas of inquiry and provide a point of view on learning. The output of the test period was key learnings and hypotheses about what may influence group work.

## Phase 2: Ethnography

In-office ethnography was conducted with non-Herman Miller or Gensler participants. Participants included leading edge and normative companies (relative to work place design). The companies included a restaurant chain corporate headquarters, a global marketing communications firm, a leading technology hardware manufacturer, a think tank, a manufacturing plant's offices, and a consulting firm.

Each of six companies identified 1 - 3 team leaders or members who were perceived as hub persons, skilled in group work and attended a lot of meetings. A researcher shadowed the respondents for 1 – 3 days each and observed group work behaviors, following them to meetings, observing while the person was working in their space and following as they went about a normal day.

A researcher trained in architecture was included on the team. She made architectural sketches of the places used for group work. These sketches were used to tie the research learning about behaviors to place cues, supports and obstacles. For example, lighting, furniture type and placement, peripheral space, etc. could be documented for those meetings with higher energy levels or greater degrees of porosity. When possible, the spaces and interactions were also documented with photos, video and audio recordings.

Observation, informal interviews and depth interviews were used to understand how to improve design of the work place to reduce or eliminate barriers and obstacles for group work interactions.

## Hypotheses & Findings

- Place adds a dimension of value. Other meetings “work,” but place adds a texture and tone that enhance results beyond just working.
- The leadership styles of the groups determine, in part, what meeting spaces are needed. Top-down meetings infer greater formality. Meetings of peers may benefit from more informal setting.
- Short-term planned meetings tend to omit telephone contributors. If a group has an urgent need to meet within a few minutes or hours, they often do not include members who typically participate by phone.
- Owned meetings tend to limit free-flowing contribution with contributors deferring to the agenda. Scheduled meetings tend to take place in more formal settings and follow an agenda.
- Informal spaces may exude a “personality” that helps members connect and relate.
- Informal meeting spaces lack a standard definition.
- Informal spaces may be associated with “better” meetings. Meetings that were more high energy, involved freer exchange of ideas, more fun/enjoyable, felt more

relaxed and continued for longer than anticipated because of the productivity of the content tended to take place in informal spaces.

- People may congregate around resources and then end up in a spontaneous meeting.
- Meetings held in open areas allow for “wild card” contributors. Unexpected or short-term contributors sometimes take the conversation to different/unexpected places and enrich the thinking of a group.
- It may be that since the nature of work has changed, the balance has been tipped so that work is no longer primarily an alone function but rather a collaborative one.

## Conclusions

Same time / same place adds a level of value above and beyond accomplishing the goals of the meeting. While all meetings observed “worked”, the meetings held same time/same place usually offered elements of value add, such as higher concentration, an ability to multitask with collaborators on multiple subjects and more opportunity for unscheduled knowledge exchange.

In his article *Changing Attitudes in Communication: The tradition of the Vermittler from Oral to Print to Cyberspace*, Donald Sunnen (2005: 2) writes “[c]ommunication and information are not opposites, but they tend to move in opposite directions.” He argues information deals more with facts and communication more with truths. This study demonstrated that that axiom applies to business interactions as well. Same time / same place was found to be of most value when the meetings were either highly staged (e.g., kick-off meetings, client presentations, brainstorming, seminars, etc.) or highly urgent. When the information being shared was complex, face-to-face both increased understanding and prevented misinterpretation or misunderstanding. Same time/ same place allowed collaborators to quickly come together to and to use all levels of, including interpersonal intelligence, to make decisions. Communication in same time / same place settings benefited from texture and energy.

This study showed that business contexts benefited from intentional physical environments in much the same ways as learning environments: promptness of attendance, leveraging the space as part of the meeting content, putting people at ease, helping to dissipate apprehension and overall increased comfort<sup>2</sup>.

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<sup>2</sup> Laurie Noe’s May 2005 article “The Literacy Caravan. Professional Development in a Unique Environment” discusses the influence of a specialized mobile classroom to help train early childhood educators. In the parlance of the work group study, the caravan represents a highly staged meeting.

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