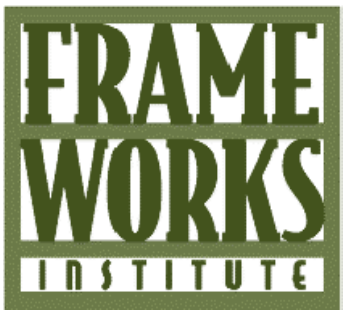

Teacher Support on the Rise:
Increasing Support for Teachers' Unions Through a Simplifying Model

A FrameWorks Research Report

Prepared for the FrameWorks Institute
by
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INTRODUCTION

The research presented here was sponsored by the American Federation of Teachers, the National Education Association, and the Ford Foundation. It represents a larger body of ongoing work by the FrameWorks Institute to advance more effective ways to communicate a core story of education and education reform. In this particular report, we describe research that is focused specifically on the issue of how Americans think about what teachers need in order to be effective and how thinkable is a role for teachers' unions in support for teachers. We designed and tested a simplifying model that has proven effective in creating, extending and expanding the understanding of support for teachers. Furthermore, this simplifying model opens space for productively discussing the *potential* role of teachers' unions. The project seeks to apply this understanding to craft new tools and strategies for communicators which can help them present the contribution that teachers' unions stand to make.

Simplifying models are metaphorically based frame cues that change the fundamental ways people understand what issues are "about." They are, therefore, useful ingredients in shifting and expanding the interpretational frameworks that people access and employ in processing information. By fortifying understandings of abstract or complex phenomena like the education system and education reform, simplifying models can strengthen Americans' ability to see themselves as politically active participants and to see issues like education reform as a tractable issue to which sound public policy can contribute.

Following FrameWorks' multi-disciplinary approach of Strategic Frame Analysis™,[1] we have unpacked and distilled people's understandings of teachers, unions and teachers' unions. We have also focused, in previous research, on how Americans' understandings of the components and concepts of the educational system are shaped by a shared set of assumptions and understandings — what anthropologists call "cultural models."[2] These shared assumptions are what allow individuals to navigate their social worlds. However, cultural models can also play a more restrictive role, shaping available interpretations and making some messages "harder to think" than others.[3]

Teachers are unique workers in the landscape of American labor: though they are professionals, skilled and educated specialists who provide services (as opposed to manufacturing goods), they are also highly visible public employees, whose wages, working conditions, and performance is frequently an issue of public debate. FrameWorks' research has shown that Americans routinely overlook teachers' professional character as well as their vulnerability as employees. What they focus on instead is shaped by a set of dominant cultural models about the educational system, education reform, the role of teachers and learning restrict Americans' ability to appreciate what sorts of support teachers need. Asked what teachers need in order to be effective teachers,

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[1] For more about SFA, see http://www.frameworksinstitute.org/sfa.html.

[2] Quinn, N. & Holland, D. (1987). *Culture and cognition*. In Holland, D. & Quinn, N. (Eds.) *Cultural models in language and thought* (pp. 3-40). New York, NY: Cambridge University Press.

[3] See: Lévi-Strauss, C. (1963). *Totemism*. Translated by Rodney Needham. Boston, MA: Beacon Press and Lévi-Strauss, C. (1966). *The savage mind*. Chicago, IL: University of Chicago Press.

research participants who gave unmodified answers overwhelmingly said that teachers need "caring," "patience," and other emotional traits of individuals. This is a problem because "the tendency to judge teachers by the degree to which they 'care,' their ability to inspire and motivate children, and their willingness to self-sacrifice, undermines the importance of content knowledge, the ability to communicate concepts, and other skills, abilities and proficiencies that result from training — in a word, teacher professionalism."[4]

Also, the default cultural models give Americans little realistic idea about where teachers do get support and where they go (if they can go at all) for more training, mentoring, and a broad array of resources. Finally, these dominant models leave Americans vulnerable to media messages about teachers' unions as purely obstructionist forces, as exclusively materialistic in their goals, and as opposed to the interests of students and their educational outcomes. Forgotten is the hope that teachers, when organized, can serve as political actors whose goals are not mutually exclusive with positive educational outcomes of students.

Without new ways to frame the role of teachers in the education system, our research suggested that it is likely that members of the public will continue to default to these culturally dominant ways of thinking. The research described in the following report shows that one simplifying model, based on the metaphor of *Scaffolding,* was substantially more successful than nine other candidate models in:

- prompting rich, productive conversations about support that teachers need
- making the education system visible
- forestalling talking and thinking in terms of the default patterns

We recommend *Scaffolding* as a strategic communications tool that makes the education system and the needs of teachers more thinkable; it also secures a place for teachers' unions in that system. Nevertheless, we note with some emphasis that even the best simplifying models cannot accomplish everything that needs to be done in reframing a complex issue like education reform. Other frame elements — Values, Messengers, Visuals, Tone, Causal Chains, etc.[5] — need to be tasked with addressing other routine misdirections in thinking. Toward that end, this report is one in a series of explorations designed to identify effective elements of an always-evolving frame around education, learning, and education reform.

WHAT IS A SIMPLIFYING MODEL?

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[4]Kendall-Taylor, N. (2010). Understanding Teachers' Collective Role in Reform: Mapping the Gaps Between the Expert and the Public Understandings of Teachers' Unions. FrameWorks: Washington, D.C. Page 24.

[5] For an overview, see http://www.frameworksinstitute.org/ezine8.html and www.frameworksinstitute.org/assets/files/PDF/framingpublicissuesfinal.pdf For more on causal chains, see http://www.frameworksinstitute.org/ezine31.html. For more on tone, see http://www.frameworksinstitute.org/ezine17.html

A simplifying model can be thought of as a bridge between expert and public understandings — a metaphor that presents a concept in a way that the public can readily deploy to make sense of new information. More specifically, FrameWorks defines a simplifying model as a research-driven, empirically tested metaphor that captures and distills a concept by using an explanatory framework that fits in with the public's existing patterns of assumptions and understandings (cultural models).[6] A simplifying model renders a complex and/or abstract problem as a simpler analogy or metaphor. By pulling out salient features of the problem and mapping onto them the features of concrete, immediate, everyday objects, events or processes, the model helps people organize information into a clear picture in their heads. This has the potential effect of making people better critical thinkers and careful consumers of media and ultimately better situated to think about how policy impacts social issues like education reform.

On the basis of this theoretical perspective, FrameWorks has built a robust, reliable protocol for determining what an effective simplifying model looks like and how it behaves.[7] An effective simplifying model:

(1) improves understanding of how a given phenomenon works;

(2) creates more robust, detailed and coherent discussions of a given target concept (e.g., teacher education, organized labor, education reform);

(3) is able to be applied to thinking about how to solve or improve a situation;

(4) inoculates against existing dominant unproductive default patterns of thinking normally applied to understand the issue;

(5) is highly communicable — moving and spreading easily between individuals without major breakdowns in key concepts; and finally,

(6) is self-correcting. In other words, when a breakdown in thinking does occur, people using the model can re-deploy it in its original form, where it is able, once again, to clarify key aspects of the issue.

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[6] Quinn, N. (2005). *Finding culture in talk: A collection of methods* (p. 3). New York, NY: Palgrave Macmillan.

[7] Kendall-Taylor, N. (2010). *An empirical simplifying models research process: Theory and method*. Washington, DC: FrameWorks Institute.

WHY TEACHERS' UNIONS NEED A SIMPLIFYING MODEL

When FrameWorks researchers design and test simplifying models, they employ the results of earlier qualitative research, cultural models theory and an understanding of the communications challenges surrounding a particular topic. We conceived of the work that a simplifying model must do on the specific issue of teachers' unions in the following way:

- The simplifying model should not mention teachers' unions *explicitly* but open a space in people's reasoning to make the role of teachers' unions more thinkable.
- The simplifying model should enable people to more easily understand education as more than a "series of individual interactions between a narrow set of actors: students, parents and teachers'; it should enable them to articulate education as a *system*.
- The simplifying model should inoculate against default thinking about what makes a good teacher, namely that teachers are mainly defined by their "caring" and other innate, mainly emotional traits.
- The simplifying model should promote thinking about how teachers are made, not born; such a "making" includes ongoing access to training, feedback, mentorship, and other resources.
- The simplifying models show how teachers are connected to each other outside of the classroom, and how these connections are important resources for teachers both as professionals and as employees.
- The simplifying model should tie educational outcomes for students to professional support for teachers.

FrameWorks' researchers identified, developed and empirically tested the power of one specific simplifying model, chosen from a long list of other candidate models, in broadening public understanding of how teachers' unions fit into what teachers need in order to be effective. We then examine the findings from this research, and conclude with specific recommendations about using the simplifying model. We end with a discussion of how this simplifying model can be applied in communication and science translation efforts. We provide Appendix A for those wanting to read more specifics on research methods.

EXECUTIVE SUMMARY

FrameWorks' simplifying model process produced one simplifying model, *Scaffolding*, which was a powerful tool that changed how people talked and thought about what teachers need in order to be effective in the context of the education system. The resulting model is provided here:

> **Scaffolding**
>
> In order to be effective, teachers need to be connected to their colleagues and to resources, which are like the scaffolding that builders use in order to provide critical support. Teachers are brain builders who use scaffolding to share plans, information, tools, and materials, and they depend on the scaffolding to safely support them. Their quality of the scaffolding helps them do their job -- they can use their expertise and construct a good building only if the scaffolding is reliable. For teachers, this scaffolding includes training and continuing education, having the right equipment in classrooms and schools, getting performance feedback from supervisors, and many other things. When builders face a particularly challenging project, they should get more resources, not *fewer*, and in such cases, they need more and better scaffolding so they can meet these challenges. To ensure that we have teachers who are effective brain builders, we should make sure they have the support of many types of strong scaffolding.

• *Scaffolding* is a highly communicable simplifying model that enabled people to talk in more expansive ways about the education system and the factors that provide support for teachers. Immediate and concrete, it possesses many components that can prompt, generate, and structure conversations. Also, it can also be employed for a range of support issues, one of which is the role of teachers' unions. Because we observed its functioning in a several contexts and settings, this adds to our confidence in its suitability as a reframe cue. Most notably, though participants in extended conversations acknowledged the challenges facing public K-12 education, *Scaffolding* appeared to prompt them to think of numerous types of teacher support that could be invented or strengthened. Rather than advocating dismantling the system wholesale and beginning over, participants felt they had substantive contributions to make. The specific contents of their lists is less important than the fact that they recognized myriad ways in which teachers need support in order to be effective.

• *Scaffolding* is designed to explain what teachers need, not the role of teachers' unions explicitly or exclusively. This makes the model useful for a range of contexts and issues. It also allows conversations about what teachers need to proceed regardless of any individual or group's specific position on teachers' unions.

• *Scaffolding* works because it is immediate, concrete, and possesses rich properties that map onto the domain we want people to reason more fully about.

• Note that in conversations about teachers, participants immediately assumed we were talking about K-12 teachers; higher education was not mentioned a single time in 12 hours of conversation with 36 individual participants. That the "education system" refers exclusively to K-12 is a frequent default mode for Americans.

• *Scaffolding* successfully blocks several type of Americans' patterns of default thinking about teachers:

- that teachers *are* the education system
- that teaching can't be taught
- that teachers must care
- that pay is the only motivation for teaching employment

•Though *Scaffolding* was not directly about teachers' unions, we observed that in longer conversations about Scaffolding, participants did not mention the following dominant or default responses to unions:

- society functions best when competition is pure
- unions are *only* concerned with pay and benefits
- the corrupting influence of money, politics, and power
- determinism and the difference between "ideal" and "real"

•Overall, Scaffolding out-performed its closest competitor, the Effectiveness Grid model. Participants were unable to consistently grasp "grid" as a kind of infrastructure; instead, they conceived of gridding as a sort of uniform standardization scheme across school districts.

WHY SIMPLIFYING MODELS ARE TESTED

Most people can easily identify metaphorical language and even generate useful comparisons in order to explain, teach or argue. Yet metaphors are also integral to human thought at much deeper levels that evade conscious detection and reflection. Each metaphor exists in a web of other meanings which are not always initially apparent; some of these meanings may ultimately endanger the very purpose to which we want a metaphor to be put. Thus, FrameWorks tests its simplifying models and the metaphors at their core in order to observe the actual directions that metaphors take in social interaction and discourse. These tests allow us to "see around the first bend" -- to observe what happens to metaphors in use well beyond the point that their off-the-cuff creators have paid attention to them. These tests enable us to avoid subjective responses to metaphors and inoculate against arguments about a metaphor's effectiveness based on from-the-hip assessments of "what most people think" or "what most people know."

A final reason for testing is this: Many of the very persistent metaphors that we use in our daily language have evolved over long periods of time to fit their cultural circumstances and be usable by human brains. We use them because they are present in our language and our culture, and they are present in our language and culture because they have outlasted or proven themselves to be more fit than other related attempts. Because issue advocates do not have the luxury of long periods of time to see what might emerge "naturally," the best alternative is to compress the evolutionary schedule in order to produce a cognitively and socially "fit" metaphor. And our testing methods comprise one form of a compressed evolutionary schedule.

HOW SIMPLIFYING MODELS ARE IDENTIFIED AND TESTED

Phase 1: Mapping the Gaps

FrameWorks' research team first conducts two types of interviews, cultural models interviews and expert interviews. Cultural models interviews are conducted with members of the general public and are designed to gather data that, through qualitative analysis, reveal the underlying patterns of assumptions — or cultural models — that members of the public apply in processing information on a given topic. Expert interviews are conducted with researchers, advocates and practitioners who possess an "expert" or technical understanding of the given phenomenon. These interviews are designed to elicit the expert understanding of the issue. Comparing the data gathered from these two types of interviews reveals the gaps that exist between how experts and average Americans understand and approach issues.

Phase 2: Designing Simplifying Models

FrameWorks' research team then analyzes transcripts of the interviews conducted in Phase 1 to generate a list of metaphor categories that capture salient elements of the expert understanding, using approaches to metaphor from cognitive linguistics and psycholinguistics. The result of the design process is a list of both metaphor categories (e.g., "Connection," "Structure") and multiple candidate simplifying models in each category (e.g., "Mission Control," "Blueprints"). The initial simplifying models generated from this phase are listed in Appendix A.

Phase 3: Testing Simplifying Models

FrameWorks tests the candidate simplifying models in multiple research formats, beginning with On-the-Street Interviews and followed by experimental surveys that test the candidate models on measures of issue understanding, metaphor application and metaphor-to-concept fit, what has been termed "aptness."[8] Finally, we take the most effective models into a final phase of qualitative testing, Persistence Trials, that mimics the game of telephone, to see how well the models hold up in social interaction as they are used and shared by individuals. At each stage, we use our findings to winnow our selections as well as refine the models that remain.

THE WINNER: AN EFFECTIVE SIMPLIFYING MODEL FOR TEACHER EFFECTIVENESS

Employing the research process outlined above, FrameWorks' research team identified, refined and empirically tested seven broad simplifying model categories and a total of nine iterations across those categories. One of these simplifying models emerged as a remarkably effective tool for countering dominant patterns of thinking about what teachers need and encouraging less-dominant but useful patterns to come to the fore: *Scaffolding*

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What *Scaffolding* Contributes to the Public Understanding

Scaffolding makes extensive contributions to public discussions about teachers and unions by: 1) bringing public understandings closer to expert ones 2) inoculating against dominant ways of thinking about teachers and unions and 3) making the education system visible.

Below we review the development of this model through the iterative research process. We discuss the general effects of the winning model, summarize the empirical evidence that demonstrates its explanatory power and describe the specific strategic advantages it would confer if employed in communications on teachers' unions and in pro-teacher advocacy more generally.

Additionally, we describe some of the finer points of using Scaffolding that advocates and other users of this simplifying model should be aware of, concluding with directions on applying these models in actual communications.

1. General Effects

Each stage of research confirmed the salience of the category of Structure from which Scaffolding originated. Salient parts of the metaphor include:

- that teachers are "brain builders"
- that they can only do their jobs well when they have support
- that scaffolding allows them to communicate with each other and collaborate
- that scaffolding gives them access to tools, plans, and other resources

FrameWorks' previous research on teachers' unions uncovered several dominant cultural models that Americans use to understand teachers in the education system, namely that:

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[8] Jones, L. & Estes, Z. (2006). Roosters, robins, and alarm clocks; Aptness and conventionality in metaphor comprehension. *Journal of Memory and Language, 55*, 18-32.

--Teachers are the education system (i.e., it is hard to think of the broader system)
--A good teacher is a caring individual (i.e., teachers are born, not made)
--Money is motivation (i.e., that the solution to public education problems lies in paying teachers more)
--Motivation is exclusionary (i.e., individuals are motivated by **either** money **or** caring)
-- School districts restrict the ability of teachers to do their jobs.

Scaffolding successfully moved people's talking and thinking away from these models.

Additionally, even if people disagreed about the specific items that should belong on the scaffolding, the model of scaffolding provided a way to structure the conversation, often in terms of the model itself. People talked about "support," about things that had "teachers' back," and forms of support that affected the system "from the ground up." If scaffolding wasn't strong or stable enough, people talked about teachers and students "falling through the holes." They acknowledged that some schools or school districts offered some scaffolding to their teachers, but that it was incomplete; they also noted how, in the current funding climate, scaffolding was being scaled back.

A note about teachers' unions

Users of *Scaffolding* will note that it does not direct attempt to explain or justify teachers' unions or their contribution to the education system. This is by deliberate design, and is a point of strength for the model because:

1) Overcoming the political charge carried by the issue of teachers' unions is simply not a task achievable by a simplifying model alone. That communications work must be achieved with a range of strategies, part of which involves a simplifying model, albeit indirectly, as we explain here.

2) Rather than tackle teachers' unions directly, the Scaffolding model's approach is more subtle and was demonstrably more productive. The model situates teachers in a broader systemic context and makes people reason about the factors that influence teachers as both professionals and employees. We predicted that people would both spontaneously mention teachers' unions as one of those factors (which they did) and that they would respond productively to probing questions about teachers' unions (which they also did).

3) The indirection of Scaffolding is more productive because it broadens the conversation about teachers in any number of directions and therefore has multiple uses in strategic communications. For instance, it can provide label for the differences between school districts without directly mentioning race or class; for instance, one could say that "District A is able to afford better scaffolding for its teachers than District B," or that "Teachers in District A have better scaffolding than teachers in District B." Participants in Persistence Trials were observed using it in this way.

4) The Scaffolding model does not magically change the minds of people who come to our research settings who were negatively inclined toward teachers' unions or organized labor. However, a conversation that proceeds along the terms that Scaffolding sets out forces them to articulate their positions in terms of the model itself; the model narrows and shapes social discourse about teachers' unions in ways that advocates should find advantageous.

II. Evidence from On-the-Street Interviews

In on-the-street Interviews conducted in Portland, Maine and Baltimore, Maryland, we tested the ability of the models to provoke more productive thinking about what teachers need as well as open up more neutral space for talking about teachers' unions. In post-interview analysis of video data, we sorted elements of the models that functioned well from less successful elements; these conclusions aided in refining models before the next research phase.

In these interviews, we observed that in open conversations, people readily used the dominant cultural model about teachers as caring individuals, as in the following examples:

> *Moderator*: What does a teacher need?
> *Participant*: You have to be patient and enjoy it. The only way to be a teacher is to enjoy doing it. You shouldn't be doing it if you don't enjoy it.
>
> *Moderator*: Where do they get that quality from?
> *Participant*: I think it does, it's innate. You have to have a liberal mind about differences in people. Certainly some teachers are narrow minded, and I don't think they're very good teachers. I don't think they convey or help students understand things by taking those approaches.
>
> *Moderator*: How do you become good at those things?
> *Participant*: Some have it and some don't. Some think they do, but when they get in the field, they know that they can't.

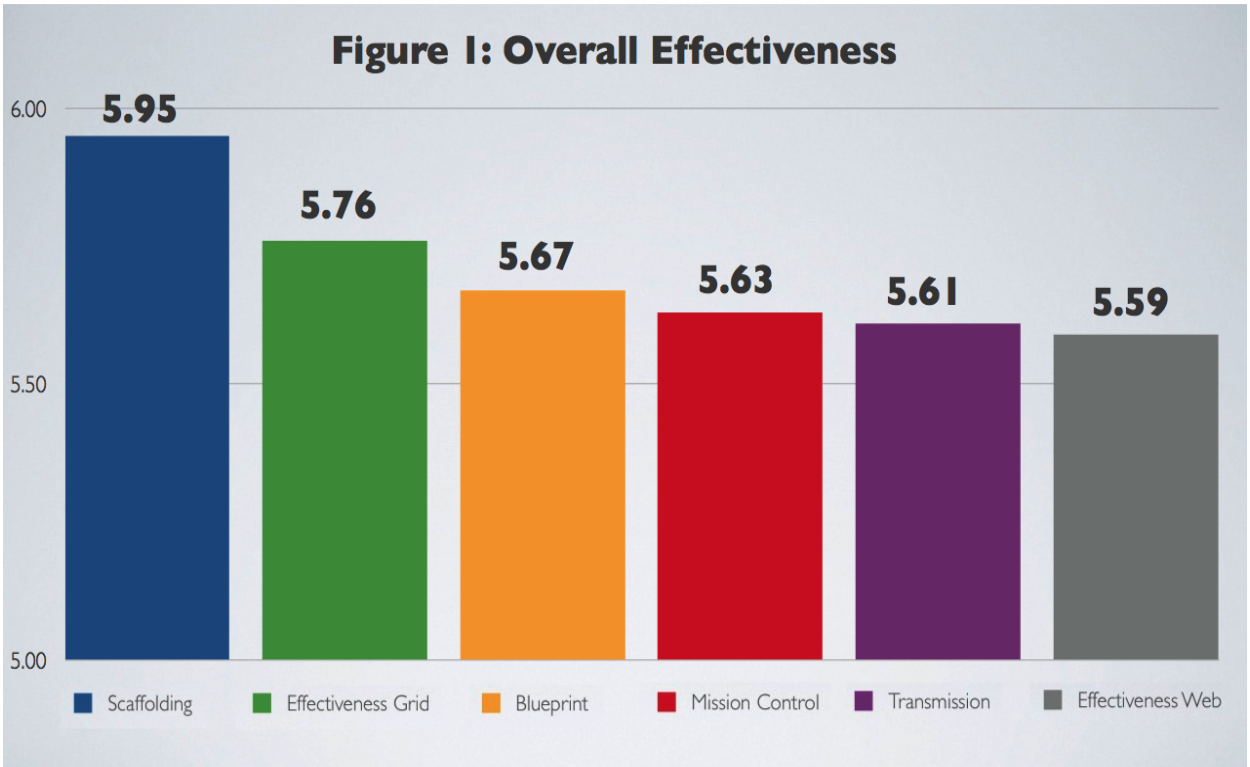
Coming out of this stage, Scaffolding was a promising model as was a model titled Brain Builders. However, Brain Builders did not enable people to talk about how teachers benefit from collaboration and communication, so it was decided to merge these two models. The phrase "brain builders" was also added to another model in the same category as Scaffolding, Blueprints. One benefit of incorporating "brain builder" is that it helped to mitigate some of the ambiguity about what the scaffolding surrounded (possibilities included the education system, a school, teachers themselves, or students). If teachers were building brains, then the scaffolding was built around student brains.

III. Evidence from the Quantitative Experiment

Using the results from On-the-Street Interviews to guide the refining of existing iterations, FrameWorks designed a large-scale quantitative survey to test and demonstrate the varying efficacy of the simplifying models with statistical accuracy. In this experiment, we measured

three things: the general understandability of the metaphor (understanding), the participants' assessment of its appropriateness as a way to think about teacher effectiveness (aptness) and each model's efficacy in opening up people's thinking about the contributions of teachers' unions (application).

Results of this experiment showed that Scaffolding was the most effective model by far, producing statistically significant higher scores than other models. Not only could people identify what "scaffolding" was, they rated the scaffolding a good way to capture important aspects of teachers' unions. It also allowed them to apply their new understanding to questions about teachers' unions and their potential role in education reform. The three measures (knowledge, aptness, and application) were aggregated into an Overall Effectiveness score for each model, which are presented in Figure 1.



The quantitative experiment produced a clear winner, Scaffolding, which was brought to the next stage along with Effectiveness Grid.

IV. Evidence from Persistence Trials

Though Scaffolding had performed with promise in the two previous stages of research, we observed its clear advantages in the extended verbal interactions in a social setting, the Persistence Trials. Along with Effectiveness Grid, we brought Scaffolding to Denver, Colorado, and Baltimore, Maryland, where we held three sessions per model with a total of 36 participants and collected over 12 hours of data.

Some of the richest data about a simplifying model comes from Persistence Trials, because they give participants a structured way to interact with and use the simplifying model in actual social

discourse. In a Persistence Trial, an initial pair of participants are presented the simplifying model, first to read alone and then orally. They then discuss the model with the moderator and teach it to a subsequent pair after being given a few minutes of time alone to discuss the model and plan their presentation. Following the transfer, the second pair explains the model to a third pair. Finally, the first pair returns to hear the transmitted model from the third pair. This last step allows us to see if the model has "persisted" over the session and if and how participants reason about any changes that occurred to the model. These trials are, with written consent from all participants, video recorded from start to finish. This allows FrameWorks' researchers to capture and analyze all interactions.

In this sequence, we observe several things: 1) how participants react to and use the model; 2) how and how well the model travels and holds up as it is passed between individuals; 3) what parts of it are "sticky" and 4) how it appears to change participant thinking on the target issue. We can also observe several types of interactions, which provide valuable insight into how the model is articulated and its thinkability.

Data from Persistence Trials are analyzed along several lines: if and how participants can apply the simplifying model; whether and how the model inoculates against unproductive cultural models; whether and how it self-corrects; and the degree to which it is communicable. In these terms, the specific advantages of the Scaffolding model are as follows:

Application. Persistence Trials showed that the Scaffolding metaphor was widely and accurately applied in several different realms.

Education as a system

One of the most notable applications of Scaffolding was to generate many of the individuals, institutions, and roles that exist in education systems.

> Moderator: So how would you describe the scaffolding technique?
> Participant: When you think of scaffolding, it is a support, it's a system like, everything working together. When it breaks down, like the training and continuing education, we all know that they need that, but I never looked at it like the definite support for the teachers to do what they do.
>
> Participant: If I'm a teacher, those are the most important things, technology, community leadership, funding, school, resources, that are gonna make or break me as a teacher. is that fair to say? Is there anything that's missing?

Support for teachers is half-built

> Participant 3: Who would pay for it?
> Participant 1: We would. The taxpayers.
> Moderator: Are you saying this scaffolding doesn't exist now? Or is this new?
> Participant 1: Its not good scaffolding. It's there, it's just not good scaffolding. It's there.
> Moderator: So it exists.

> Participant 1: But there are kids falling off the scaffolding, through the cracks. Through the hole. It's there, but it's weak.

Teachers need support to be effective teachers

Another asset of Scaffolding from Persistence Trials is that people were just as able to talk about intangible types of support, such as emotional support, social networks, and adequate supervision, as they were concrete types of resources such as textbooks, computers, and classrooms. One might predict that the materiality of scaffolding would drive people to think solely of material, concrete factors, but we did not observe this.

Unions spontaneously mentioned as belonging to the scaffolding

Because Scaffolding does not explicitly mention teachers' unions, moderators of Persistence Trials were instructed to introduce the topic casually. Yet in 3 instances, unions came up as topics spontaneously by participants, as in this example:

> Participant 1: The stuff I see, continuing education, the bigger picture is you're trying to unionize a lot of this stuff. Which is not bad, it's not good. But I..and I think a lot of it too has to do with money….I'm just glad there's someboy's actually trying to solve problems nd right now there's lot of problems.

The moderator later probed the participant about his mention of unions.

> Moderator: You had said something before about unionizing, I wanted to ask you about that.
> Participant 1: It just, it seems like you're trying to streamline. I don't know if there are teachers unions or not --
> Moderator: Ask her [pointing to Participant 2, who had teachers in her family].
> Participant 1: No, I could just see trying to streamline how things are taught, or deal with wages, which I think is good. Something about a union just shot in my brain.

When the topic of teachers' unions did not come up spontaneously, the moderator asked a question about them; some answers bore the marks of Scaffolding:

> Moderator: Do you think that teachers unions play a role in the education system?
> Participant 1: They should.
> Participant 2: I don't think I know enough. I think they should.
> Moderator: How should they? This is totally hypothetical. Think about unions, think about scaffolding.
> Participant 1: I think they should protect the teachers more. I think they should fight for more funding for the teachers. Just so they can have all the resources, whether it be books or resources or extra hands in the classsroom at all levels... I think they should fight more for getting the teachers feedback and really listening and going off what the teachers say they need.

Agency. One of the most important goals of a simplifying model is to renew people's sense of agency, whether as citizens, voters, or simply as people with solutions. In Persistence Trials, participants generated sophisticated lists of things that teachers need, such as this one written on a pad by a member of a Generation 3 pair:

> Teachers need support in more than one area:
>
> parental support
> administrative support
> proactive support from teacher counselors and parents
> community support
> curriculum adaptability & challenge
> strive for excellence
> communication -- interaction

That this list is more detailed and extensive and embodies a more sophisticated sense of the education list than individuals who were left to their own devices could generate.

Inoculation. One of the biggest challenges for this model was to prevent the substantial cultural default ways that people have of talking about teachers and unions from surfacing in the conversations. On a number of fronts, it showed a surprising degree of success, perhaps because asking about the inputs to teacher effectiveness moved people's thinking outside of classrooms and even outside of school buildings themselves.

Against the invisibility of the education system
Conversations about Scaffolding broadened how people conceptualized the education system, which became a wider set of interlocking system including communities, business leaders, families, school administrators, taxpayers, fellow teachers, unions and union leaders; moreover, people's discussion also carried the sense that each set of players came with interests that can be in competition. More broadly, scaffolding inoculated against sense that what teachers do comprises the whole of what the educational system does, or that teachers are the education system.

Against "teachers must care"
As evidenced by the on-the-street interviews, unprimed conversations with Americans reveals the default idea that teaching can't be taught -- that teachers must care. Moreover, this caring (along with other personal and emotional traits) are the most important determinants of educational outcomes. Over the entire 6 hours of Scaffolding Persistence Trials, there were no individualizing mentions of how "teachers must care." One consequence of the "teachers must care" concept is that there is no room to think about what teachers might need in the way of training, continuing education, peer evaluation, networking. In fact, participants in Persistence Trials generated these types of support and many others.

Against "money = motivation."
When reasoning with this cultural model, Americans assume that teachers can be made to perform better if they are paid more money. In Persistence Trials, participants' creativity about finding ways to support teachers might be seen as an implicit acknowledgment that increased

salaries are not, in the immediate future, at least, a reliable motivator. Participants still talked about the need to evaluate teachers, create accountability mechanisms, and reward good performance, but Scaffolding appeared to give them a way to broaden their thinking beyond just the material rewards of doing a job, as in this comment:

> Participant 1: *The scaffolding idea basically is, to me, to keep the teachers motivated. You're going to need money and resources. Pay equals incentive to teach. Because it is frustrating. t Because teachers get burned out. Kids talk back worse than we do. Trying to find a way to keep these teachers interested and motivated so that they can reach these kids.*

Against ways of thinking about unions.
Though *Scaffolding* was not directly about teachers' unions, we observed that in longer conversations about Scaffolding, participants did not mention the following dominant or default responses to unions:

- society functions best when competition is pure
- the corrupting influence of money, politics, and power
- determinism and the difference between "ideal" and "real"

Participants did talk about how unions are concerned with pay and benefits and disputed how organized labor was relevant to other priorities such as school reform. They did, however, allow that a reconfigured union would be an important part of the scaffolding that teachers need. The one widespread conception of teachers' unions which persisted throughout conversations was the perception that they protect bad teachers, as in this comment:

> Participant: *They could apply more force to management to get teachers these supplies. A more united front. A shortage in this area. It can also be a double-edged sword in that some -- but not all -- unions protect some poorly performing teachers. Almost every union will do that. It's a good thing that they help teachers not to have to worry so much about high performance all the time but there has to be some steady benchmarks that teachers have to meet to stay in the game, as it were.*

Self-correction. Self-correction refers to a simplifying model's ability to snap back to its initial form following a deterioration of the concept in discussion. At times, one structural feature of the metaphor has been forgotten, drops out of conversation, or devolves into an alternative formulation. For instance, participants may forget that tables have legs. An important measure of a model's strength, self-correction occurs when this feature re-asserts itself in subsequent discourse *without being cued by the moderator*. When communicated in the public sphere, simplifying models are likely to break down. Therefore, it is important that a concept have sufficient internal coherence to recover from such devolutions — to encourage people to arrive at key entailments despite partial or inaccurate communication of the simplifying model.

A prime example of Scaffolding's ability to self-correct can be seen in this comment, where the participant sets out to chastise teachers who are motivated only by money and appears to be

headed toward the "teachers must care" model. However, she quickly pivots onto language supplied by Scaffolding ("fell off," "not getting support").

> Participant 2: *That goes back to where, you have some teachers who have lost the love for the teaching and they're just doing it for a paycheck. I don't know it could be because they just fell off, they just don't have any love for it. Or they're not getting the support they need to continue to be able to fight and they're losing that drive and ultimately, at the end, the kids, they suffer. They suffer.*

Communicability. Scaffolding was generally highly communicable between generations of people; the term was transmitted faithfully and consistently. Even if people disagreed about the specific items that should belong on the scaffolding, the model of scaffolding provided a way to structure the conversation, often in terms of the model itself. People talked about "support," about things that had "teachers' back," and forms of support that affected the system "from the ground up." If scaffolding wasn't strong or stable enough, people talked about teachers and students "falling through the holes." They acknowledged that some schools or school districts offered some scaffolding to their teachers, but that it was incomplete; they also noted how, in the current funding climate, scaffolding was being scaled back.

One measure of the model's communicability is how readily participants used the concept and its label when they were working together to prepare their presentation, as here:

> Participant 1: *I was going to say continuing education for the teachers. A support system of the --*
> Participant 2: *We could say the teachers' union. Administration.*
> Participant 1: *Admin. Principal.*
> Participant 2: *Secretaries. Principals. The teacher is only as strong as the scaffold you build with these tools.*
>
> §§§
>
> Participant 1, alone to Participant 2: *One thing I'm thinking about right away. The scaffolding is used to build a main structure. Scaffolding is temporary, but it's a behind the scenes -- these are all behind the scenes -- when the teacher's teaching, you don't see those funding, technology, community leadership, in the classroom. But it's there feeding those people.*

The model of Scaffolding also inspired a majority of the pairs to draw visualized schematics which they called scaffolding. Even though these were realized in a variety of graphic devices, the concreteness of Scaffolding that inspired them to attempt it should be counted as another asset of the model.

Recessive Models. An additional function of simplifying models is that they can sometimes strategically activate more productive, although many times more latent, cultural models. Sometimes these recessive models may be productive in structuring ways of understanding that are more consonant with experts' approach. However, because of their latency, these patterns of

understanding can only be effective if more dominant models are disabled. In early research FrameWorks identified some models about unions, namely that

1) Institutions and systems do matter
2) Teachers' success = access to resources

For both of these, Persistence Trials provided ample instances of these recessive models at work. As was noted earlier, the default understanding about institutions and systems was that they impeded teachers' abilities to do their jobs. "In other words, where informants *did* make the assumption that institutions matter and voiced views structured by this assumption, these more contextual and systemic factors were assumed to operate *to the detriment of the caring teacher*, who was described as being hamstrung by the freedom — and motivation-'zapping' rules and regulations that come down from 'the man.'"[9] Institutions as constraining did come up, but in Persistence Trials for both models, participants were in fact more apt to prescribe institutional limitations (such as standardized curricula, enforced summer programs, performance-based pay, and other education reform solutions) than they were to defend teacher against them.

USING SCAFFOLDING

Our research shows that the Scaffolding simplifying model stands to make a significant contribution to framing education reform in general and teacher advocacy and teachers' unions more specifically. The metaphor proved to be highly understandable, applicable, communicable, self-correcting, and able to inoculate against limiting dominant perspectives. For these reasons, FrameWorks offers this new strategic frame element to aid in reframing the public conversation about teachers' unions and their role in education reform.

We add two notes of caution in the application of simplifying models in general and Scaffolding more specifically. First, the simplifying model suggested here was tested both for its underlying concept and with respect to the highly targeted linguistic execution of this concept. Therefore, the emerging model represents both an effective metaphor and an effective linguistic packaging of that metaphor. A certain latitude and flexibility in the use and application of Scaffolding is to be expected, even encouraged. For instance, advocates might insert specific forms of support where the model currently reads "this scaffolding includes training and continuing education, having the right equipment in classrooms and schools, getting performance feedback from supervisors, and many other things." *We do not recommend inserting teachers' unions in to the model.* Yet the specific concept and language that appear in the report have empirically demonstrated effectiveness. We do not claim to know the results or effectiveness of using alternative but related concepts or dramatically different linguistic packagings.

We conclude with a set of notes about using the simplifying model that advocates should keep in mind when they set out to use Scaffolding in publications, talks, and other communications.

1) They should include the following basic elements in using the simplifying model:

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[9] Kendall-Taylor, 2010, 39.

- Workers use it. Those workers, called brain builders, are teachers.
- Scaffolding has to be strong, stable so that workers can do their jobs
- Scaffolding provides support and safety but also an ability to move tools and information around
- No matter how expert these builders are, if they can't get to their job site (and be safe there), they can't use their expertise

2) "Brain builders" is a powerful element of the model and should be present whenever Scaffolding is presented, for several reasons:

- It eliminates the ambiguity over what the scaffolding is built around and what
- it reinforces a view of the education's mission that is not controversial but often overlooked
- It also reinforces the sense, which Scaffolding also provides, that things outside the teacher are major factor in explaining teaching and educational quality
- Its characterization of the work of teachers was powerfully and positively well-discussed in on-the-street interviews where "brain builders" was tested as a stand-alone model.

(One note: The power of Scaffolding is not due to "brain builders," as another model mentioning brain builders did not fare as well models from other categories. Moreover, a single model, "Brain Builders," was tested; though promising, it did not conceptually gather individual teachers into a broader collective with the same interests.)

3) We noted a tendency among participants in extended conversations to turn toward hierarchy and tiering. One participant discarded Scaffolding altogether and began articulating a pyramid shape. While this "building upwards" component was not a part of the intended purpose of the model, this tendency can be directed toward productive ends, by suggesting, for instance, that teachers need different kinds of support at different points in their careers.

This tendency to discuss "building upwards" has several pitfalls, however. If the discussion turns toward building construction, the question of foundations arise. As FrameWorks researchers have observed in research on early child development, the "foundation" concept often prompts individuals to reason and talk in terms of singular, primary influences; at this point, Americans easily default to families and, specifically, parents. (By contrast, Canadians default to families, communities, and peer groups, a broader set of actors and a more collective group of them.)

4) Also, people may want to discuss the temporary nature of scaffolding, which is literally true. However, they can be reminded that scaffolding lasts as long as the duration of the job, and that as long workers are using it, it has to be reliable, strong, and stable, properties that are more pertinent to strategic communications about teacher support and teachers' unions. Please note that the temporariness of scaffolding was not universal; others talked about scaffolding as permanent. One person discussed how "New York City was built out of scaffolding."

About FrameWorks Institute
The FrameWorks Institute is an independent nonprofit organization founded in 1999 to advance science-based communications research and practice. The Institute conducts original, multi-method research to identify the communications strategies that will advance public understanding of social problems and improve public support for remedial policies. The Institute's work also includes teaching the nonprofit sector how to apply these science-based communications strategies in their work for social change. The Institute publishes its research and recommendations, as well as toolkits and other products for the nonprofit sector, at www.frameworksinstitute.org.

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APPENDIX A: THE METHODOLOGICAL APPROACH TO IDENTIFYING AND TESTING SIMPLIFYING MODELS

I. PHASE 1: MAPPING THE GAPS

In the first phase of this simplifying models research process, FrameWorks employed an interview method called cultural models interviewing. Using a detailed interview guide, interviewers asked questions aimed at getting at how average Americans understand and approach the issue of teachers and teachers' unions.

More generally, cultural models interviews reveal the cognitive "terrain" on a given issue by focusing on the implicit patterns of assumptions — or cultural models — which individuals employ to process incoming information on an issue. These patterns are the "mental bins" into which people try to fit incoming information and represent both potentially productive and damaging ways of making sense of information. To uncover the gaps in understanding on the

target issue, we held the findings from cultural models interviews up to data gathered from experts on teachers' unions. FrameWorks calls this process “mapping the gaps.”

II. PHASE 2: DESIGNING SIMPLIFYING MODELS

After identifying the gaps in understanding, the second phase of the simplifying models research process aimed to generate a set of candidate simplifying models that were then empirically explored and tested in the third research phase. The result of the design process is a list of both metaphorical categories (e.g., “Structure”) and multiple iterations or “executions” of each category (e.g., “Scaffolding,” "Brain Builders"). FrameWorks’ linguist analyzes all of the transcripts from the “mapping the gaps” phase of the research process and generates a list of metaphor categories that represent existing conceptual understandings that can be recruited as well as overlap between the experts’ and general public’s use of metaphorical language and concepts. The linguist generates metaphor categories that capture the *process* element (how the thing works) of the expert understanding in metaphors that, given the data gathered from members of the general public, have the potential to be easily visualized and incorporated into thinking about the issue under consideration.

FrameWorks researchers who are specialized in cultural models and cognitive theory conduct a cognitive analysis of the model categories, which examines the *expected* public response to the metaphors based on cultural models theory and existing FrameWorks research on cultural models that Americans employ in understanding teachers, teachers' unions, and education reform. Researchers then use this analysis to review the metaphor categories, adding new possibilities and suggesting ones to be cut. At this stage, researchers also compare the candidate metaphors to the data from the initial cultural models interviews. Metaphor categories that contain elements or aspects of models found to be damaging or distracting in the public’s thinking about the topic are eliminated from the candidate list. On the other hand, simplifying model categories containing elements of more productive cultural models are highlighted as particularly promising.

During the process of designing candidate simplifying models, FrameWorks also assesses the models’ abilities to be incorporated into practice by journalists and advocates/practitioners. In some cases, this practical assessment has suggested that some candidate models are too provocative or problematic to pass into the public discourse. These models are removed from the working list. The refined list is then returned to the linguist, who begins to compose iterations or executions of the categories on the list. The list of categories and iterations is sent back to FrameWorks’ researchers for additional revisions.

III. PHASE 3: TESTING SIMPLIFYING MODELS — THREE TESTS OF MODEL EFFECTIVENESS

TEST I: ON-THE-STREET INTERVIEWS

As the initial opportunity to test candidate simplifying models, On-the-Street Interviews present an ideal opportunity to gather empirical data on the effectiveness of candidate simplifying models — which specific elements of the models are functioning well, and which aspects are less successful in clarifying concepts and shifting perspectives.

The metaphors are written up as "iterations," paragraph-long presentations that cue the listener/reader to two domains of meaning, one of which is typically referred to as the "source," the other of which is known as the "target." In the metaphorical statement "encyclopedias are goldmines of information," the source domain of meaning is "goldmine" and the target is "encyclopedias." In FrameWorks' terms, "encyclopedias" is the target because it is the object or process that the application of knowledge about goldmines is meant to illuminate.
Iterations on the following metaphors were brought to this stage: The Lantern Element, Engine of Effectiveness, Mission Control, Scaffolding, Musician, Brain Builders, Receive and Relay, Web of Effectiveness.

In 2010, FrameWorks tested a total of eight candidate simplifying models in two locations (Baltimore, Maryland and Portland, Maine). Each candidate model was presented orally, in separate interviews, to two to three informants in each location for a total of six interviews per model, comprising a data set of 48 10-minute interviews. All informants signed written consent and release forms and interviews were video and audio recorded by a professional videographer. The eight models represented executions of seven different candidate simplifying model categories. Data from the interviews were used to winnow and refine categories as well as to refine the individual executions of metaphors within categories.

Subjects
A total of 48 informants were recruited on site in the two locations. A FrameWorks researcher approached individuals on the street or walking through a mall and asked if they would be willing to participate in a short interview as a part a research project on "issues in the news." The recruiting researcher paid particular attention to capturing variation in gender, ethnicity and age.

Data on each informant's age and party affiliation, as self-identified, were collected after the interview. Efforts were made to recruit a broad range of informants. However, the sample is not meant to be nationally representative. Although we are not concerned with the particular nuances in how individuals of different groups respond to and work with the simplifying models tested in these interviews, we recognize the importance of between-group variation, and take up this interest in quantitative testing of simplifying models — where the virtues of quantitative sampling techniques can effectively and appropriately address issues of representativeness and across-group variation.

The Interview
FrameWorks had the following goals in designing and conducting On-the-Street Interviews: (1) identify particularly promising simplifying model categories, (2) refine those categories with more mixed results and (3) eliminate highly problematic categories, in which the underlying *concept* created problems that could not be overcome by refining existing or designing new executions. FrameWorks' approach to this winnowing process is highly conservative to assure that only the most unproductive categories — those that are beyond repair — are eliminated. However, winnowing is a necessary feature of a process that intentionally produces a large set of possible iterations, but that culminates in the one most effective simplifying model. More specifically, interviews were designed to gather data that could be analyzed to answer the following questions:

A. Did the informants *understand* the model and its underlying metaphor?

B. Did they *apply* the model to talk about what teachers need in order to do their jobs?

C. Did the model *shift* discussions away from the dominant thought patterns that characterized the initial responses?

D. How did participants respond to the questions about teachers unions?

E. Did exposure to the model *lead to more articulate answers and robust, fully developed conversations* of issues that informants had problems discussing prior to being exposed to the model?

The interview began with a short series of open-ended questions that dealt with what teachers need in order to do their jobs and where those things come from. The interviewer then discussed one of the candidate simplifying models using a conversational script. Following this exposure to the simplifying model, the researcher asked informants a second series of open-ended questions designed to gauge the effect of the simplifying model. In the majority of the interviews, questions about teachers' unions followed the presentation of the model; in a small subset, questions about unions preceded the model, in order to allow us to judge the potential derailing effect of the union issue. Though we determined that the teachers' union topic was not, in fact, a distraction, we chose to keep the format in which teachers' unions questions were presented after the model. We also decided to keep explicit mention of teachers' unions out of the models. As we found, even without mention of the model, participants were able to discuss the potential roles of unions.

TEST II: QUANTITATIVE EXPERIMENTAL RESEARCH

After analyzing On-the-Street Interview data, FrameWorks subjected the refined set of simplifying models to an online quantitative experiment. The overarching goal of this experiment was to gather representative and statistically powerful data on the models' effectiveness. These data then provided an empirical basis to select one or two models that were most successful relative to a set of theoretically-driven outcome measures. In the end, experimental data were used to select and refine one model that was then taken into the final stage of the empirical testing process. The categories that emerged as successful in On-the-Street Interviews were built out to include other iterations.

Aggregation: Effectiveness Web, Effectiveness Grid
Connection: Mission Control, Transmission
Structure: Scaffolding, Blueprints

In March 2011, FrameWorks conducted the survey, which measured the performance of six candidate simplifying models in three metaphor categories in relation to a set of outcome measures. Approximately 2,000 survey participants were drawn from a national online panel and data were weighted on the basis of gender, age, race, education and party identification to ensure that the sample was nationally representative.

Experimental Design
Following exposure to one of six "treatments" — paragraph-long iterations of candidate metaphors — participants answered a series of questions designed to measure a set of theoretically-based outcomes. Effects were compared both across and within categories — meaning that general categories were tested against other general categories, and specific iterations were tested against other iterations both within and across categories. Outcomes measured included: *understanding*, *application* and *aptness.*

Treatments
In designing the survey instrument, multiple iterations were generated by a linguist as alternative representations of the larger metaphor categories. For example, the "Structure" category included specific instantiations of "Scaffolding" and "Blueprints," while "Aggregation" included "Effectiveness Web" and "Effectiveness Grid."

In total, six specific simplifying model iterations were developed. Each treatment consisted of a paragraph that described the metaphor, as in the following example of "Blueprint":

> Lots of people are talking about how if teachers are going to do their jobs well, we need to connect them to other teachers and to resources. In this way teachers are brain builders who need clear blueprints of the project they're working on. The blueprints guide how things should be done and allow lots of builders to work towards the same goal so that they can do the highest quality job possible. Because the blueprints are so critical to the project, they must be shared among all builders, and the builders, because they know the most about building, need to have a voice in modifying and improving the blueprints. If these blueprints aren't shared and don't have the input of the teachers, teachers can't do their jobs effectively, can become less patient with their students, and can't support others in the system. So the best way to attract and retain effective teachers is to ensure that they're sharing blueprints.

Among iterations, only the name of the model (e.g., Blueprint), entailments and structural features specific to that metaphor, and appropriate lexical items or phrases differed. This balance of *variation* between models and *standardization* in construction and language is designed to ensure that any differences in effect were due to differences between the models themselves, and not to some unintended confounding variable.

Outcome Measures
After receiving the treatment paragraph, participants were asked a series of multiple choice questions to test each model's performance in relation to three outcome measures: understanding, application and aptness. The numerical outcomes of this experiment were provided in the main body of this report.

TEST III: PERSISTENCE TRIALS
After using quantitative data to select the most effective model, FrameWorks conducts Persistence Trials to answer two general research questions: (1) *can* and *do* participants transmit the model to other participants with a reasonable degree of fidelity? and (2) *how* do participants

transmit the model? In other words, the method examines how well the simplifying models hold up when being "passed" between individuals, and how participants use and incorporate the models in explanation to other participants.

The Persistence Trial

A Persistence Trial begins with two participants. The researcher presents one of the candidate simplifying models and asks the two participants a series of open-ended questions designed to gauge their understanding of the simplifying model and their ability to apply the model in discussing the target domain (here, what teachers need in order to fulfill their mission as brain builders). For example, the researcher asked how the participants understood the simplifying model; what they imagined the source domain (e.g., Scaffolding) referred to; and how the idea presented related to what teachers need. Questions and analysis were also designed to locate any terms or ideas in the execution of the model that participants had difficulty with or explicitly recognized as problematic.

After 15 to 20 minutes of discussion between the two initial (or "Generation 1") participants and the interviewer, Generation 1 was informed that they would be teaching the simplifying model to another pair of participants (Generation 2). Generation 1 was given five minutes to design a way of presenting the simplifying model, after which they had five minutes to present the simplifying model to Generation 2. Generation 2 then had five to ten minutes to ask Generation 1 questions about the presentation. During this time the interviewer generally allowed dialogue to unfold naturally between the two groups but periodically probed for additional information on ideas that emerged.

Generation 1 then left the room and the interviewer asked Generation 2 an additional set of questions designed to elicit their understanding of the simplifying model and ability to apply the concept. This questioning lasted for approximately 10 minutes, at which point Generation 2 was informed that they would be "teaching" the idea to two new participants (Generation 3). Generation 2 had five minutes to plan their presentation after which Generation 3 entered the room and the two groups went through the same steps and questions as described above.
A Persistence Trial ends when Generation 1 returns to the room, where Generation 3 teaches the model to Generation 1 (without being told that Generation 1 are already familiar) re they are allowed to debrief with Generation 2 on the direction the metaphor has taken. The interviewer then reads the original paragraph-long iteration and asks questions about its transmissibility.
For the teachers' union research discussed here, FrameWorks tested two candidate simplifying models (Scaffolding and Effectiveness Grid) in Denver, Colorado and Baltimore, Maryland in May of 2011. Each candidate model was tested in three Persistence Trials. All informants signed written consent and release forms prior to participating in the sessions, and interviews were video and audio recorded by professional videographers.

Subjects

A total of 36 informants participated in Persistence Trials. These individuals were recruited through a professional marketing firm, using a screening process developed by and employed in past FrameWorks research. Informants were selected to represent variation along the domains of ethnicity, gender, age, educational background and political ideology (as self-reported during the screening process).

Analysis
In analyzing data from Persistence Trials, FrameWorks sought to answer the following specific questions in relation to each simplifying model:

A. *Were* participants able to *apply* the simplifying model; and more specifically *what* were the ways in which they applied the model?

B. Was the simplifying model *communicable?* Was Generation 1, 2 and 3's presentations of the simplifying model faithful to the initial model presented by the interviewer? How did the groups' presentation of the model differ from that presented by the interviewer (i.e., did they use different language, use different ideas related to the metaphor, emphasize different entailments, etc.)?

C. Did the simplifying model *inoculate* against dominant default cultural models? That is, did the model prevent discussions from falling back to the dominant unproductive cultural models? Furthermore, if one of these cultural models did become active, could the simplifying model prevent the discussion from veering narrowly in these perceptual directions?

D. Did the simplifying model *self-correct*? That is, if one Generation's presentation was not faithful to the original simplifying model or left out a key component, did the ensuing Generation's interpretation and/or presentation self-correct?

E. What specific *language* did the groups use in discussing the model? Was there language that participants used that was not included in the original execution of the simplifying model?

As described in the main body of this document, Scaffolding produced a number of beneficial effects on participants' talking about what teachers need to do their jobs and teachers' unions.