

**Abstract Title Page**  
*Not included in page count.*

**Title: Recruiting Participants for Randomized Controlled Trials**

**Authors and Affiliations: H. Alix Gallagher, Jeremy Roschelle, Mingyu Feng, SRI International**

## **Abstract Body**

*Limit 4 pages single-spaced.*

### **Problem / Background / Context:**

Recruitment is a key challenge for researchers conducting any large school-based study. Random assignment studies pose greater challenges to recruitment because of the degree of control that researchers often require. Participants must be eager to implement the target intervention – and yet, must be equally willing to NOT implement the target intervention, depending on random assignment. Participants must be willing to give up control of an aspect of their school or classroom. Participation often involves obtaining coordinated commitments from multiple levels of a school system: teachers, principals, and district leaders. As a result, recruitment for randomized controlled trials requires a true partnership between researchers and the practitioners who design and implement the tested program.

Further, recruitment often involves finding a cohort of new adopters of an intervention who will all agree to start at the same time – and few programs naturally have large enough cohorts joining en-mass with the desired timing. In order to have sufficient statistical power to detect at least medium-sized effects (effect sizes of .20 standard deviations or larger) and allow for attrition, researchers typically need to obtain samples of 30-60 teachers or schools. To preserve the integrity of the study, the research team needs to maintain teachers' participation in their assigned treatment status and completion of data collection activities throughout the study. The seeds for success in these ongoing aspects of randomized controlled trials start during the recruitment phase. Attracting and retaining a coherent cohort is a key research challenge which begins with recruitment.

This paper harvests lessons learned across 19 randomized controlled trials in education conducted by a leading research organization to identify strategies that have fostered successful recruitment efforts.

### **Purpose / Objective / Research Question / Focus of Research/ Research Design:**

Our objective was to look across strategies used in a wide range of studies to build a framework for researchers to use in conceptualizing the recruitment process. Because of the number of RCTs that SRI International has conducted, the variation in the types of interventions studied, and the diversity of settings in which we have conducted our studies, we have a unique sample from which to build a framework that can inform the field.

### **Population / Participants / Subjects/ Settings**

We report on our experiences in recruiting teachers for random assignment experiments in public primary and secondary schools. Our perspective is based on 19 current and completed randomized controlled trials in K-12 school settings. While this collection of studies is a naturally occurring sample, it is still a useful sample due to its diversity. The studies included in the sample address:

- Varied topics, such as educational technology, literacy, mathematics, science, instructional materials, and teacher professional development,
- Varied units of randomization, including the student-, teacher-, school-, and district-level,
- Varied overall populations, which might focus on a particular state, specific schools or districts, or existing usage areas for the studied intervention across multiple states,

- Varied demographics including urban, suburban, and rural schools; higher- and lower-poverty schools; special populations of students (English Learners, students receiving special education services); students pre-K through 12th grade,
- Varied kinds of participants, including both individual volunteers (i.e., where individuals could voluntarily enter the study and randomization occurred among those who volunteered) and those focused on entire organizations (e.g., principals decided their school should participate and teachers were expected to follow that decision),
- Varied durations of experiments, from weeks to years.

### **Improvement Initiative / Intervention / Program / Practice:**

Unlike the typical structured abstract, our initiative was to combine insights from many experimental projects, each with very different interventions, programs and practices. Unlike a typical meta-analysis, our purpose is not to bring the outcomes of these together, but rather the lessons learned about conducting a key phase of each project: recruitment. In order to accomplish this, we developed a six phase framework for collecting insights about the best practices in recruitment. The six phases are: study design, tailoring and packaging, planning the recruitment effort, design messages, running a recruitment campaign, and post recruitment follow up.

### **Data Collection and Analysis:**

We collected data by making a list of 19 large, field-based randomized controlled designs, which SRI International has conducted. A set of leaders from these projects met first to draft an initial framework of the kinds of recruitment information we would like to extract across projects. For the most part, the desired knowledge was craft knowledge and was not available in written form. Consequently, we asked project leaders to identify the set of people who had the most experience with this craft knowledge, which included both some principal investigators as well as staff who have frequently been at the forefront of recruitment efforts. As knowledge was collected it was organized into a framework, which was necessarily revised to accommodate the insights that accumulated. A smaller group of leaders reviewed the resulting document and raised questions and issues, which were resolved by a second round of data collection. Finally, a revised document was prepared and reviewed by leaders across the projects, who agreed it represented a consensus on best practices in recruitment based on their experiences.

### **Findings / Outcomes:**

Looking across the 19 studies, we identified six phases in the process for recruiting participants. We describe best practices identified for each phase briefly below; the presentation of this paper will be able to go into somewhat greater depth and provide examples and supporting evidence.

**Study Design.** During the design stage, researchers need to balance factors that could improve the quality and value of their study with the size of the “ask” from participants, which is a central issue affecting how easy or difficult it will be to recruit participants for a study. These decisions center around the interplay between external validity (Is the program being used according to its model with a typical population?) and chances of maintaining internal validity (Can the team obtain sufficient implementation and participant retention?). As such, the decisions involve tradeoffs, and we recommend that recruitment decisions be made in collaboration with program developers and the leaders of the experimental design.

Key decisions include the unit of randomization (e.g., typical tradeoffs include the increased likelihood of contamination with teacher- as opposed to school-level randomization balanced by the need for a larger recruitment effort to obtain equivalent power with school-level as opposed to teacher-level assignment) and the use of convenience, vs. purposeful, vs. random sampling of populations (which will later be randomly assigned to specific treatments). A best practice is purposeful sampling that considers both the conditions likely to support strong implementation (for efficacy trials) and as well as desired generalizability of results to broader populations. On the program side, it is important to balance the duration, intensity, and impact of the program. While greater impacts may be more likely for longer and more intense programs, it goes without saying that it is far harder to recruit (and retain) teachers for an experiment that lasts longer and involves more substantial changes in work practice. Finally, researchers and program developers alike need to be judicious in collecting data to reduce costs and participant burden, while still garnering data necessary to understand implementation and impacts.

**Tailoring and Packaging the Intervention.** To successfully recruit and engage participants for the duration of a study, researchers need to understand the potential intrinsic and extrinsic incentives—and disincentives—that will be in play during the experiment. For example, does the program increase or decrease teachers' workloads in the short- and long-term? Even if it requires more work, is it aligned with broader individual or organizational goals that make the program inherently valuable? How can participants be enticed to participate in data collection? How great is the perceived harm of being assigned to the control condition likely to be? Incentives need to be balanced such that both treatment and control conditions remain motivated to remain in their treatment status and complete data collection throughout the study. Understanding the answers to these questions is the foundation upon which successful recruitment lies. A best practice often involves working with the program developers to refine the packaging of the intervention (e.g. the materials, training, etc.) to minimize the unnecessary complexity participants might experience, lower the threshold for teachers to engage, and to address issues that might lead to participant attrition.

**Planning a Recruitment Process.** Recruitment is a process that unfolds in several stages over an extended period of time and requires the coordinated action of multiple staff members. As such, a good plan for the recruitment process is essential before actual recruiting begins. One best practice is to consider is the number of layers of the educational structure that need to be addressed through the recruitment process. Recruitment frequently requires building support at multiple levels (e.g., district, school, teacher, parent, student) and ways of working with each layer need to be tailored to concerns at that level. Because recruitment often takes a while, we recommend attention to the necessary lead-time, and best practices often involve allowing time for contingency planning when things do not go as well as expected at first. Another best practice is for the research organization to engage local organizations who already have credible and long-lasting relationships with potential participants as partners in the recruitment drive.

**Designing Messages.** The framing of a research study that is effective in convincing peer reviewers to score a proposal highly has little to do with the best framing to attract recruits. Therefore, need to design customized recruitment messages before the recruitment process commences. A best practice is to develop a message that is clear and resonates with the perspectives of all the individual roles (e.g., principal, teacher, parent) whose support will be needed – framed around how they see their own needs, concerns, and the potential benefits of participating. Successful messaging is built on the understanding (described above) of incentives and disincentives in play. We have found that intrinsic motivations are greater around alleviating

pain (i.e., addressing real problems) as opposed to acquiring new niceties, and thus a best practice often involves focusing recruitment around a pain point being experienced by the target population (e.g. addressing new standards or a particularly difficult instructional challenge). Additionally, messages need to be low-jargon, balance portraying the picture of benefits with a realistic view of associated burdens. If recruitment materials downplay the requirements of participating in the study, later attrition is more likely. Finally, we have found it important to educate participants about random assignment in order to overcome negative (and, in our view, unfounded) concerns about the methodology writ large.

**Running a Recruitment Campaign.** Recruitment can best be understood as a campaign. Like an election campaign, the goal is challenging, the process unfolds as unforeseen obstacles arise, and many people have to work together in a coordinated fashion to make it happen. At the center of the campaign, we have typically held weekly conference calls among all key stakeholders: the front-line recruiters, the intervention provider, and the researchers. This is necessary to handle emergent issues, to identify who needs to receive which communication, track potential participants through a ‘pipeline’ from initial contact through confirmed participation, and to keep the work appropriately coordinated. A best practice in the campaign is to maintain a database that tracks communications with each target participant (e.g. teacher, principal, district official) across the various recruiters who may interact with them and tracks their present status in the recruitment campaign (e.g. raw lead, expressed interest, planning to apply, applied, accepted). This database both allows focusing the recruitment effort but also keeping track of the emerging demographics of the sample, which can enable re-targeting further effort to obtain the a final sample with the desired characteristics.

**Post-Recruitment.** Once recruitment ends, random assignment and baseline data collection typically need to begin quickly. The understandings, processes, and relationships the developed over the course of the recruitment process, however, have hopefully laid a strong foundation for maintaining participant engagement in the subsequent study. Careful planning must go in the transition from the recruitment process to the study on-boarding process.

### **Conclusions:**

Recruiting for an RCT is particularly intense and challenging. Based on our experiences with recruiting for many projects, we have found it useful to conceptualize recruitment in phases, each of which has a detailed set of considerations appropriate to its essential work. Given that recruitment is the foundation of a successful RCT, careful attention to these processes from when the study is initially conceived until the last pieces of data are in, are critical to the conduct of the research. Consequently, we would advocate for more detailed attention to recruitment in research proposals; in the work of peer review panels and pre-award negotiations; and in the work of advisory committees. Based on our experience, a well-detailed recruitment plan should clearly fit the research design, explain how the intervention will be packaged to reduce the burden on participants, describe the overall timeline, staffing and project management structure for the campaign, give examples of how messages will be communicated to potential recruits, discuss strategies for handling contingencies that emerge during the campaign, and be thoughtful about how applicants will be welcomed into the study and retained as participants. In the presentation at SREE, we will discuss examples of these phases and invite the audience to share both their questions and their experiences.

## **Appendices**

*Not included in page count.*

### **Appendix A. References**

*References are to be in APA version 6 format.*

None.

## **Appendix B. Tables and Figures**

*Not included in page count.*

None.