

Research Operations

Several stages comprise the life cycle of a research study: design, development of instruments, recruitment of research sites, training and implementation, management of operations, data collection, and data analysis. Empirical Education can conduct research studies from inception to reporting. We also provide services to school district research departments and to other research organizations that draw on components of our overall capabilities, such as research design or data collection and warehousing. Specific components of our operational capabilities are described below.

Recruitment of Research Participants

For our publisher partners not already working with a school system, we can apply our expertise in identifying, contacting, and bringing on board a sufficient number of districts, schools, or teachers to address the research design. We begin with discussions at the school district level where the authority to permit access typically resides. We may draw upon our many district contacts, established through prior work and professional meetings, or we can recruit new sites as needed. We use standard district agreements that are brief yet comprehensive, spelling out the study's data requirements and identifying a point of contact. Our agreements also contain teacher consent forms and specify timelines and procedures that may be needed for identifying and training participants and for collecting data. We comply with the requirements of Family Educational Rights and Privacy Act (FERPA), the expectations for which are built into our district agreements.

Institutional Review Board (IRB) and Office of Management and Budget (OMB) Compliance

Empirical Education retains an external IRB to provide objective oversight of all our protocols. We have worked closely with the organization to develop standard operating procedures, including templates for district agreements, teacher consent forms, and other research activities, to assure that our staff remains fully aware of all requirements for human subject protections. By building these procedures into our operations, we also improve our ability to work effectively with a wide variety of school systems. We always give precedence to any additional requirements when we work in school systems having their own review procedures. We have also developed the package required by the OMB for any research conducted under federal contracts. This includes providing the particulars of design, protocols, participant burden, and other details, and following them through the whole process to final acceptance.

Survey Development and Deployment

Empirical Education uses a proprietary, secure, web-based survey tool, *SurveyCenter™*, to collect qualitative and quantitative information from the teachers involved in a study, including information on background and assignment, professional development and on-site support, participation in professional learning communities, and curriculum and instruction. We typically send out periodic survey questionnaires over the duration of a study. We have an exceptionally high response rate (over 90% at the teacher level), as we follow up non-responses with email, fax, and phone calls—including contact with principals and other administrators—in order to find effective channels of communication. To date, we have written hundreds of surveys for approximately 10,000 recipients, each respondent answering as many as eight monthly surveys per year. We have developed a manual of style for surveys, and we maintain a data bank of questions that have been tested and refined for use in various applications.

Observations and Interviews

Our team is proficient with data collection from the field. We have experience using a variety of interview and observation protocols during our site visits, focus groups, and individual participant

interviews. We frequently observe training sessions to document the presentation of an implementation model and to better understand the issues around implementation that may arise. Interviews and focus groups verify continuing participation and possible contamination and serve to follow up on additional topics that may have become evident in survey responses. We have recruited and trained local observers (retired teachers, for example) and can manage observations or testing anywhere in the country. Our observations and interviews serve twin goals of quantification of practices and rich qualitative description.

Data Collection and Data Entry

We have extensive experience with the various stages of data collection, including initial requests for class rosters and demographic data from school districts. Drawing on our expertise and engineering resources in data warehousing, common data elements, and formats, our team takes full advantage of district student record systems to gather data and track implementation efficiently. All data integrated into the Empirical Education data warehouse are cleaned and verified, and can be examined statistically. For surveys, our *SurveyCenter*[™] tool's interface to our database allows automated email invitations to be sent to study participants and performs automated aggregation of data from the responses we receive. Resulting figures are fed back into our data warehouse where they are automatically transferred to our analysis team.

Empirical Education Inc.
www.empiricaleducation.com
425 Sherman Avenue, Suite 210
Palo Alto, CA 94306
(650) 328-1734