

TEAM SCIENCE: FOSTERING SUCCESSFUL COLLABORATIONS IN SCHOOL AND CHILD HEALTH RESEARCH



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Background

The UConn Collaboratory on School and Child Health (CSCH) strives to encourage collaborators to take a team science approach. Team science simply refers to the use of interdisciplinary teams to tackle research problems.¹ Researchers have identified many benefits of forming teams with members from different fields and perspectives “with research consistently indicating that teams can be more effective than the sum of individual efforts.”² But team science can be challenging– it requires not only expertise but effective cooperation, coordination, and communication.³ Team science is even further complicated when engaging in applied research with diverse partners. Collaborations between researchers and schools, for example, can be challenged by varying priorities, constraints, timelines, and measures of success. To help sift through issues CSCH Steering Committee members wrote a book chapter, “Making the Most of Collaborative Projects,” that outlined challenges and opportunities around using team science in school and child health research.⁴ This brief highlights the chapter’s recommendations.

Successful Team Science in School and Child Health Research

Team science can be rewarding but can be time-intensive, especially when forming partnerships across multiple child-serving systems. To form successful teams, partners can:

1. Recognize the uniqueness of the team and the structures involved and ask questions.

“Collaboration is not just about the work on a given topic (or the what at hand), but also the why, who, how, where, and when that defines, supports, and executes the work.”⁴ With so many different systems involved, school leaders, researchers, and community organizations should take time to learn about the different ways in which they all operate, to whom they are accountable, and any other factors outside of the collaborators’ immediate control.⁴ It is important to make sure that every involved entity is ready to tackle a new project and that all members agree that a team approach is necessary and appropriate to best reach agreed upon goals and outcomes. Each of these points requires explicit communication.⁴

2. Understand the suitable conditions for teamwork.

“Team leaders must have the capacity to identify, plan for, and routinely monitor the conditions for teamwork,”⁴ including tending to interpersonal relationships and processes for psychological safety.⁴ By its very nature, bringing stakeholders together from different perspectives increases the chances that a team will need to navigate differences in opinions, ways of working, and the valued benchmarks for success. It is important to spend time up front developing shared goals, agreed upon work processes, and planning for how the group will reach mutually agreeable solutions when challenges arise.

3. Appreciate that school-based research can complicate collaboration.

“Applied research collaborations present more partners with differing roles and expertise, moving parts to the collaboration, and often messy research designs.”⁴ Because of the complicated and differing organizational, accountability, and funding structures, school

leaders and researchers must ensure that all partners are involved in the initial research design. Bringing everyone together from the outset, rather than tackling project design and implementation through separate steps completed in subgroups can decrease the chance that the project moves away from agreed upon, shared goals and ways of working.

Recommendations for Facilitating Strong Collaborative Projects⁴

4. Co-create shared goals.

Shared goals that honor the accountability structures of each stakeholder ensure the entire team is motivated for success. Shared goals foster a mutualistic relationship that benefits everyone and often leads to ongoing sustainable collaborations.

5. Collaborate on broad perspectives useful for sustainable collaboration.

The ways we work and the processes we use to complete tasks often result from work cultures unique to our individual organizations. Using processes that are jointly constructed and mutually valued often leads to long-term collaborations that can tackle bigger, more complex problems than when we focus on a single project designed around a single moment in time.

6. Discuss available resources and plans for sharing results.

A candid resource assessment is a necessary early step in building a reasonable scope of work for any project. Part of that assessment includes identifying the audience of stakeholders who will benefit the most from the group's products, and thereby shapes the number and type of products to which a group commits.

Key Resources for Research Collaboration

American Psychologist 2019 Special Issue on the Science of Teamwork

Includes articles that summarize the importance and current state of evidence regarding teams and teamwork across settings

National Cancer Institute Team Science Toolkit

Houses information on instruments, measures, guidelines, and a reference library to support team processes.

CSCH Report - Team Science Principles in School and Child Health Research

A longer report that walks teams through the various steps of forming teams to work on collaborative research projects.

W. T. Grant Foundation Research-Practice Partnerships

Tips and examples in research-practice partnership topics such as structuring a partnership, developing a joint research agenda, and data sharing agreements.

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¹ "Southern California Clinical and Translational Science Institute. (2021, August 6). *What is team science?* <https://sc-ctsi.org/training-education/what-is-team-science>

² Mathieu, J. E., Wolfson, M. A., & Park, S. (2018). The evolution of work team research since Hawthorne. *American Psychologist*, 73, 308–321.

³ Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The science of teamwork: Progress, reflections, and the road ahead. *American Psychologist*, 73, 593–600. <http://dx.doi.org/10.1037/amp0000334>

⁴ Chafouleas, S. M., Sanetti, L. M. H., & Russell, B. S. (2021). Making the Most of Collaborative Research Projects. In R. G. Floyd and T. L. Eckert (Eds.), *Handbook of University and Professional Careers in School Psychology*. New York, NY: Routledge.