

## The Outlier - Wolcott Computer Science Research-Practice Partnership: Advice from the Field

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In the fall of 2017, study team members were asked to complete an online questionnaire about their involvement in a two-year, National Science Foundation-supported research-practice partnership (Grant # 1542963) to make computer science (CS) more accessible for students with learning and attention disorders. The questionnaire was developed to better understand researcher and practitioner experiences in the work, and to collect advice from members to share with newly-developed and more mature researcher-practitioner partnerships.

This guide is based on questionnaire responses. Quotes from team members are included throughout. Advice corresponds to three phases of the partnership: (1) **The Planning Phase**, (2) **At the Onset of Work**, and (3) **Throughout the Project**.

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### [1] The Planning Phase

When planning the project's work scope and timetable, **conduct a careful, conservative, and honest assessment of time allocation needs**. Many experienced partnership members recommend budgeting more time than you initially suspect you will need.

*"Plan on triple the time you anticipate."*

Realistic and conservative time budgeting is particularly useful in the following areas:

a. Allocating meeting time for **full-team meetings**

*"We didn't seem to have enough time in our every-other-week 1.5 hour all-team meetings. We almost always were rushing through and often couldn't cover everything. In the second year of the project, some team members organized a second team meeting at a different day and time related to specific issues that came up."*

b. Allocating specific time for **communication**

*“Time is also needed for back-and-forth communication between researchers and practitioners related to feedback and revision (because in a research study, nothing is ever “done” the first time around).”*

*“Budget ample project time/project budget allocation for managers for communication - working cross-functionally requires a huge investment in time for email/in-person and virtual meetings, responding to questions about work, scheduling, etc. - the day-to-day that takes more time working across different organizations, that structure their time differently.”*

c. Building in specific, **dedicated time for school-based practitioners** to complete their portion of the project work

*“Assume that the practitioners will be pulled in different directions because of their other responsibilities and consider what kind of working environment will be most conducive to practitioners getting large chunks of work done (e.g., blocks of time off-site).”*

After a careful, conservative, and honest assessment of time allocation needs, **determine if changes to the scope of work are required** (e.g., Is additional staffing is required to complete the work? Should the scope of the work be changed due to constraints on time or other resources?)

*“Include more participants, including pairs of experts to complete the work, so the workload can be shared and collaboration can strengthen the process and results.”*

*“I would be more realistic about my availability and the time demands of the work....I would reduce the scope of the project or increase the funding to hire additional dedicated support.”*

Create **explicit, written plans for the work** that will be completed, by whom, and on what timeline.

*“Be specific about when and how the work gets done, especially if more than one practitioner (different schedules) need to work together.”*

*“To the fullest extent possible, prior to onset of work, craft a short-term, medium-term, and long-term plan for the team as a collective and for each individual on the team.”*

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## [2] At the Onset of Work

Invest time at the beginning of project work to **establish team-wide clarity around important components of the project**, including:

a. **Project goals and objectives**

*“Build in time at the start of the project to get everyone on the same page about project roles and objectives - make sure everything is clear, and everyone has a well-established understanding of their important role.”*

b. **Roles and responsibilities**

*“Clearer communication of expectations to all individuals on the team. While I understand that this was an exploratory project, it was not clear that everyone understood what was expected of them (on both the research and school sides). Expectations often changed. Some of this was due to findings, others not necessarily so.”*

*“Spend time coming to agreement on a team workflow, then put it in place - this will allow all team members to have a sense for the daily work of the project, as well as how to reach longer-term project goals/outcomes (and will ultimately help with the overall task management and bringing work to completion).”*

c. **Communication** modes and channels

*“Establish clear norms for communication among all members of the group, including particular guidance on whom to contact when questions arise.”*

d. **Group norms** for meetings, communication, and handling issues

*“An evaluator-led session on the very front end of the work may have helped establish some norms and expectations early on so as not to be [set by the research group], but more [project] team-decided norms.”*

**Create rapport and a sense of group** identity by devoting time early on to team building and allowing all team members to get to know one another the different professional roles of each team member.

*“Build in time to explicitly learn one another's language and approach.”*

*“The project plan should include time for team members to get to know each other. This should be more than just a couple of ice-breaker activities.”*

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### [3] Throughout the Project

**Revisit systems, norms, work plans, and timelines periodically** throughout the project. A systematic assessment of processes and productivity allow for a project to change and evolve as it progresses. This is particularly true for exploratory projects.

*“Communicate early and often that adjustments to the work process and priorities will be on-going - flexibility and constant problem-solving are key to RPPs that involve exploring ways to make something better.”*

*“It is likely that all the expectations and hopes for the project may not be accomplished the way they were envisioned, especially in an exploratory study. Remember this at points along the way.”*

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#### Citing this Work

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