TEACHING IN TEAMS: A PLANNING GUIDE FOR SUCCESSFUL COLLABORATIONS

Deborah Meizlish and Olivia Anderson

Introduction

Team-taught courses have the potential to enrich experiences for both students and instructors. While the exact motivations for team teaching vary, these courses often share important goals for the students who enroll in them. For example, many team-taught courses seek to promote students' development of higher-order thinking skills by enabling them to interact with instructors who have different sets of expertise and perspectives (Bacharach, Heck, & Dahlberg, 2008; Bierwert, 2011; Helms, Alvis, & Willis, 2005). This is particularly true for educational programs intending to help students grapple with the scope and complexity of real-world challenges (Helms et al., 2005; Weinberg & Harding, 2004, Bierwert, 2011). Other courses teach successful collaboration in part by using the instructors themselves as a model of productive teamwork, whether in general (Carpenter, Crawford & Walden, 2007; Helms et al., 2005; Yanamandram & Noble, 2006;) or across salient social identities (Anderson & Speck, 1998; Ouellett & Fraser, 2011). In addition to higher-order thinking and collaborative skills, team-taught courses can provide other benefits for students. For example, a team of instructors can provide students with more access to advice and help with course material (Yanamandram & Noble, 2006). Multiple sources of instructional expertise, experiences, or identities can also help ignite interests and motivations across a broader array of students (Yanamandram & Noble, 2006).

For instructors, there are benefits as well. Team teaching across subject or disciplinary boundaries enables instructors to encounter new content knowledge, as well as new perspectives on their own expertise (Bacharach et al., 2008; Plank, 2011; Shibley, 2006). This can lead to fresh lines of inquiry and foster innovative opportunities for collaborative research.

> *I co-taught an introductory level course for students with a wide variety of backgrounds. Due to this variability, a team teaching approach was helpful for several reasons: 1) the instructional team brought a broader perspective to the materials presented; 2) the collaborative nature of deciding on content, assessments, and mechanisms to deal with student concerns prompted us to make instructional decisions with more clarity and thought than if it had been done by one instructor; 3) team teaching gave students a variety of ways to ask for assistance, letting them discuss course materials with whichever instructor they preferred. The team teaching approach was especially helpful in deciding how to modify course objectives, content, and assessments, ensuring that decisions were made in a careful and collaborative manner.*
> ***-- David Bridges, School of Public Health***

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Team teaching can broaden instructors' pedagogical skills while providing opportunities to reflect more deeply on teaching and professional practice (Bacharach et al., 2008; Plank, 2011; Shapiro & Dempsey, 2008; Shibley, 2006).

> *If you have the opportunity to co-teach with someone who is open to the process -- jump right in. Every time I have this type of opportunity I have learned more than I could have imagined. With collaborative and engaged co-teaching, the students benefit from a diversity of perspectives and approaches, and so do the co-teachers themselves. Co-teaching gives me the opportunity to learn, reflect and engage in teaching and collaboration in a way that I simply cannot do on my own.*
> ***-- Bridgette Carr, Law School***

Finally, team teaching can build important personal connections in an instructional community, providing opportunities to mentor new colleagues, lessen isolation in teaching, and build connections across disciplinary silos (Helms et al., 2005).

> *Having the opportunity to work with faculty from five different schools to create one Interprofessional Education (IPE) course has been a tremendous learning experience for me. It was especially interesting to learn that there were so many things I didn't know about my colleagues' professions after decades of practice. This collaborative effort really allowed us to create a course to teach students about real teamwork.*
> ***-- Leslie Dubin, School of Social Work***

Achieving these positive outcomes, whether for students or instructors, is not guaranteed. Instead, success depends on careful planning and implementation. Without attention to these elements, team-taught courses can create considerable obstacles for students and instructors (Hanusch, Obijiofor, & Volcic, 2009). This Occasional Paper is designed to identify practices and resources to support the successful development and implementation of team-taught courses. We first identify a range of team teaching models and highlight some of their key features. We then turn to common challenges and key strategies for mitigating these challenges. Finally, we provide two resources for teaching teams: a planning questionnaire in Appendix A and a set of strategies for evaluating the success of team-taught courses (pp. 8-9).

Models of Team Teaching

The term "team teaching" can be misleadingly simple. In fact, team teaching encompasses many different approaches, and any particular team may include individuals from various positions within the university (e.g., faculty, GSIs, clinicians, instructional aides, etc.). To better consider how these individuals, regardless of formal title, come together in a team structure, it is useful to delineate several dimensions of instructional collaboration. For example, Davis (1995) identifies the following four dimensions of collaboration relevant to interdisciplinary courses, three of which apply to any team-taught course.

1. Planning: "Are all members of the team involved in planning or do some members of the team play a more important role in planning the course than others?... How well have the goals of the course been elaborated and to what extent do the goals reflect the views of all the participants?" (8)
2. Teaching: "Do all team members participate more or less equally in the delivery of the course? Are teaching responsibilities broken into identifiable time segments…or do [instructors] intermingle their instruction day by day?" (9)
3. Testing and Evaluation: "Who writes and who grades the exams and papers? Who takes charge of the process, and where is the highest court of authority when students challenge the process, including their grade? In addition, who decides what mechanisms will be used to get…feedback about the course, not only on what students appear to be learning, but on satisfactions and concerns about the course?" (9)

The fourth dimension, content integration, is particularly applicable in multidisciplinary and interdisciplinary situations and reflects questions such as these:

4. Content Integration: "In what ways, and to what extent, have the multiple disciplinary perspectives... been represented? Are the differing perspectives seen as contradictory or complementary? Do the various disciplines provide different lenses for viewing the same phenomena or do the disciplines examine different phenomena? Are the perspectives distinct and related in some logical way, such as serial or chronological order, or have the perspectives been integrated to produce some new way of thinking about the substance of the course? Is some unifying principle, theory, or set of questions used to provide unity and coherence to the course?" (8-9)

If one considers each dimension as a continuum of potential collaboration, it is possible to identify an array of models in use at the University of Michigan (see Table 1). In each, the nature and degree of collaboration varies. Each model also has to overcome specific challenges. For example, in the lead instructor model, there is little collaboration across these dimensions, yet there are high expectations for consistency in the delivery of the course. Therefore, the success of the course depends on the ability and willingness

Table 1: Models of Team Teaching

Model Type	Model Description
Lecture/Section or Lecture/Lab	This common model divides instruction between a senior instructor who works with all students (e.g., in a large lecture) and graduate student instructors who work with subsets of students in smaller recitation/discussion/lab settings. For more on this model, see CRLT's Occasional Paper #21: Teaching Effectively with GSI-Faculty Teams.
Lead Instructor	The lead instructor develops lesson plans, course materials, and course policies -- thereby setting the overall trajectory for the course. Guided by these materials, additional instructors deliver the course in distinct sections. Students interact solely with their section instructor. Common assessments (i.e., exams, papers, projects) are determined by the lead instructor but may be graded by individual instructors.
Coordinated Sections	Instructors collaborate on the design of the course (identifying common topics and assignments) but implement the course with their own distinct groups of students and evaluate their own students' work. Students interact solely with their section instructor. Regular meetings of all instructors facilitate necessary adjustments as the course unfolds.
Sequential or Rotational	Instructors collaboratively set the basic structure for the course and their shared students but do not share planning for individual class sessions. Instead, each instructor implements their "piece" of the course for which they determine the material to be covered and the teaching modalities to be used. When questions arise, students are encouraged to contact the instructor responsible for the particular segment of the course involved. Each co-instructor is responsible for the graded assignments in their portion of the course, designing and grading those assignments.
Specialty	Instructors collaboratively plan the course and individual class sessions but teach to their expertise within or across class sessions. This can mean that instructor role varies by class segment or class session. Assignments are jointly planned, though grading may be split to reflect particular zones of expertise.
Co-facilitation	The instructors collaboratively plan all elements of the course, from selecting readings and creating assignments to structuring individual class sessions that they jointly guide and facilitate. Students are welcome to contact any instructor for office hours or clarifications. Instructors share grading responsibilities and coordinate on how to provide feedback and guidance on student work.

of other instructors to implement the course as designed. In the coordinated sections model, there is a strong emphasis on collaboration on dimensions number one and three, even though teaching is done individually. As with the lead instructor model, balancing the common vision with individual preferences can be challenging. The rotational or sequential model places less emphasis on collaboration across all dimensions. While this model does increase instructor autonomy, it also increases the likelihood that students will find a course to be disconnected or disjointed. The co-facilitation model assumes a high-degree of collaboration and coordination across all dimensions, but difficult situations can arise if disparities in goals or approach are not hashed out before they emerge in class.

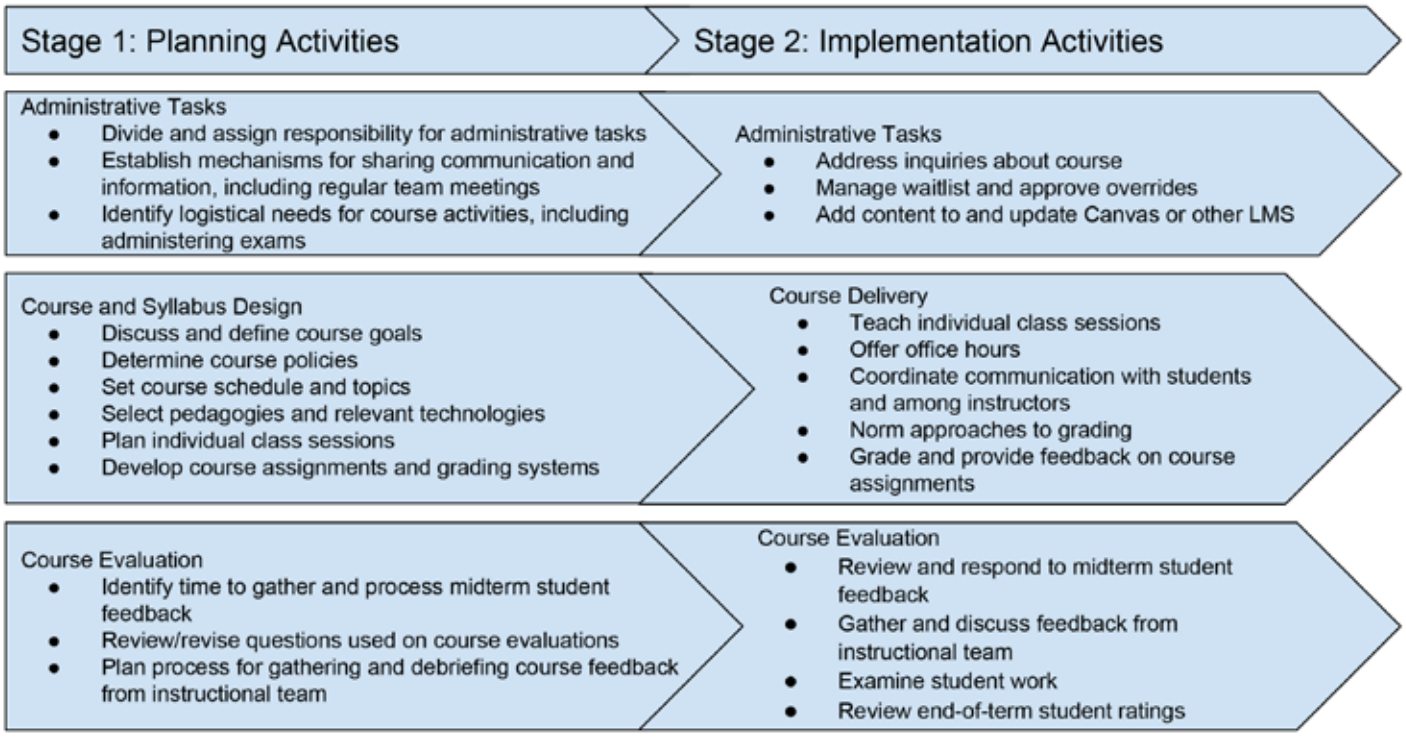
Overcoming Common Challenges in Team Teaching

Research indicates that when instructors identify and strategize about challenges during the planning stage, conflict during implementation will be lessened, creating space for a successful team dynamic and providing an effective learning environment for students (Shibley, 2006). Figure 1 delineates some of the common elements associated with planning and implementing a team-taught course, highlighting specific areas in which conflict can play out. Next, we address three common challenges in team teaching and discuss mechanisms for mitigating those challenges.

Differences in Teaching Philosophy

One challenge involves navigating distinct teaching or pedagogical philosophies. If these philosophies are not addressed in the planning stage, they will certainly present themselves during the implementation stage, while teaching individual class sessions, and while interacting with students. Although differences in pedagogical philosophy or approach are common, instructors need to be aware that

Figure 1: Common Elements of Team Teaching



such differences can become obstacles for students and, at a minimum, students may need time to adjust to these differences as they become apparent in class, in office hours, or in the creation and grading of assignments or exams. The planning stage is an opportunity for instructors to discuss among themselves their teaching philosophies and how their individual values, beliefs, and practices can be integrated for a successful course. It is also important for instructors to be transparent to students about their pedagogical values starting on the first day of class or even within the syllabus. To help instructional teams prepare for conversations on these topics, a team teaching questionnaire is embedded at the end of this Occasional Paper (Appendix A). This questionnaire is meant to help an instructional team identify areas of both commonality and difference. By comparing responses, the instructional team can identify areas in which greater conversation is needed to arrive at a shared understanding of how to successfully plan and implement the team-taught course.

Lack of Coordinated Communication

A lack of coordinated communication mechanisms also presents challenges for students and faculty (Hanusch et al., 2009). To mitigate these challenges, there are several practices that can foster communication throughout the course. For example, in the sequential or specialty models, attending one another's class sessions is a valuable way to support ongoing and effective communication (Anderson & Speck, 1998; Landy & Anderson, 2006). Having all instructors in attendance offers several advantages. First, all instructors know exactly what material has been covered and how it was taught, allowing for smoother collaboration when developing tests or assignments. Second, it enables each instructor to build connections to earlier class sessions, an important technique for helping students navigate the overall course. Third, attending all class sessions enhances the ability of each instructor to serve as a resource for students. Even where attending a common class session is impossible (e.g., in the coordinated or lead instructor models),

Team teaching forces you to explicitly characterize your own pedagogical assumptions and habits as well as adjust some of your methodology to create a classroom environment that adequately incorporates two styles or expectations of teaching. Successful team teaching is only possible with constant communication, both between the instructors and with the students to ensure that stated objectives are met and student experience is optimized. By establishing our values beforehand and frequent discussion, we were able to create a space of trust, where our students were encouraged to and felt freedom to engage with us and each other and offer critiques or innovations. Team teaching is challenging. But with regular communication—teamwork—as well as patience and some good luck, it is incredibly rewarding.
-- Jay Crisostomo and Ana Maria Vinea, Near Eastern Studies

communication will be supported by holding shared class planning and debriefing sessions, including all instructors on major communications to students (including responses to questions), developing common grading practices, and holding norming sessions when grading major assignments.

Lack of Attention to Instructor Identities

A third set of challenges can emerge if there is no attention to how the instructional teams' social identities may translate into different experiences of and perspectives on teaching. In some cases, the teaching team may represent a combination of social identities that are particularly relevant to the subject matter of the course itself. For example, Ouellett and Fraser discuss their experiences as a white man and a black woman teaching a graduate social work course on race in the United States (2011). This deliberate choice was seen as an advantage in that "students can observe interactions between the professors, view an authentic collaboration across racial difference, and learn how to take an antiracism position." In their work on interracial team teaching (2005 as discussed in 2011), they found that interracial teams "work best when there is similarity in level of teaching experience and philosophical congruence. Interracial teams need to model equal participation and interaction, and a mentor-mentee team does not provide this equality. This is especially true if the faculty member of color is limited to the role of mentee." For instructional teams teaching core content related to issues of social justice, Ouellett and Fraser (2005) provide a team interview guide that may be valuable as a planning tool.

Given that instructional teams may find themselves working together for a variety of reasons, and not always by choice, it is particularly important for teams to consider how to mitigate potential power imbalances amongst a teaching team (due to age, experience, gender, race, seniority) – especially as these imbalances can affect the dynamics between instructors and between instructors and students. For example, if a course is co-taught by a male full professor and a female junior professor, a series of implicit biases (Banaji & Greenwald, 2013) could cause students to grant more authority or respect to the male, full professor. Moreover, these differences in identity can affect which types of teaching choices are available or comfortable for each member of the teaching team (e.g., the use of humor, the amount of personal information shared, mechanisms for responding to student challenges, formality of dress, etc.). Finally, other tensions between instructors can be exacerbated if social identities are not thoughtfully navigated. As Ouellett and Fraser (2011) write, "students have a kind of internal radar that picks up instantly any kind of sustained split between teachers. While this is not necessarily a race- or gender-based conflict, if you add gender and/or race to the mix, it may become even more complicated."

Fortunately, there are several strategies that instructional teams can take to undercut bias, whether implicit or otherwise. For example, members of the instructional team should be introduced and referred to in ways that situate each member's expertise or contributions in comparable terms. Each member of the team should be intentional about respectfully acknowledging each other's work (whether research or teaching) during class sessions. Instructors and students should adopt a common practice of address for all instructional members in a given role (e.g., all addressed as Professor or all addressed by a first name). Finally, in order to support the authority of each member of the team, it is important to establish explicit processes for how the team will address student questions, clarify information, or handle conflicts or grade complaints. It is important to attend to the equitable distribution of work in these realms, especially as the interplay between instructor and student identities has the potential to lead to imbalances in which some instructors are likely to have additional work. For example, without explicit attention to the division of labor in handling grade complaints, it is possible that student perceptions of relative authority or flexibility might leave a younger female member of an instructional team fielding most grade challenges. Alternatively, faculty who hold particular underrepresented identities can find themselves shouldering additional labor when they are disproportionately called on as potential allies or advocates by students who share those underrepresented identities. In thinking about how to share the work of a course, it is important to acknowledge all the work involved.

Measuring Success

There are several approaches an instructional team can use to assess the success of a team-taught course. First, it is possible to seek feedback from students on the team teaching arrangement itself, as distinct from feedback on each individual instructor. This can be done as part of a midterm feedback process or incorporated into end-of-term student ratings. Depending on the structure of a unit's formal student ratings system, it may be necessary to deploy an additional survey to gather this data. Here we offer examples of specific Likert-scale questions that can be used in a team teaching context [those drawn from Hanusch (2009) are noted by (H)]:

- The instructional team modeled effective collaboration
- The instructional team modeled respectful disagreement
- The instructional team modeled how to make space for diverse opinions

- The instructional team created a welcoming environment for all students
- Team teaching provided me with diverse insights into the course content (H)
- The team of instructors allowed me the opportunity to learn from the most appropriate expert on the course content
- The course felt cohesive because the instructional team effectively linked course concepts across class sessions
- Teaching was well coordinated among the lecturers (H)
- The instructors were well coordinated
- The instructors' sections complemented each other
- Communication from the instructional team was clear

Second, the instructional team can examine student learning directly. While there are many methods for assessing student learning that go beyond the scope of this paper, one approach for the team teaching context is to ask students to reflect on their own learning and discuss in what ways, if any, the team teaching structure fostered that learning. Alternatively, it can be valuable for an instructional team to collectively analyze representative student work (e.g., final projects or final exams) as a means to assess course success and plan for future revisions. This should be a separate exercise from the grading process itself. Instead, this analysis would focus on finding patterns across students – identifying those areas in which students excelled and those that were less successfully achieved. For additional resources on assessing student learning, see the resources at http://www.crlt.umich.edu/assessment and http://crlt.umich.edu/engaged-learning/goals.

Finally, it is important to gather feedback from members of the instructional team on each of their experiences with the course. While the particular strategy depends on the size and composition of the team, an important principle is to use a feedback process that explicitly invites the perspective of each member of the instructional team. Depending on the size of the team, this could range from a structured debriefing conversation to a formal survey of the instructional team.

Conclusion

Team teaching can be a rewarding experience for students and instructors. It can be an ideal course structure for helping students encounter multiple sets of expertise and perspectives, modeling respectful teamwork, and generating critical-thinking skills necessary for tackling real-world problems. For instructors, it can open up new forms of collaboration and provide a valuable space for reflecting on one's teaching practice. Yet without careful planning, team teaching can also generate obstacles for both students and instructors. The resources here can help jumpstart that planning by identifying necessary areas of attention and discussion, thereby helping to ensure that team-taught courses are a valuable experience for all.

In a course that is truly team taught, everyone benefits. The instructors have a shared teaching experience that is enriched by the collaborative nature of the teaching. Each instructor contributes unique ideas and teaching styles to the course, creating a more dynamic classroom environment. The expanded expertise that team teaching brings to a course also increases the intellectual and scholarly quality of the course. One person simply cannot be equally expert in all areas of a course. These benefits all make a good team-taught course more fun for the instructors and students too.
-- Laura Olsen, Molecular, Cellular, and Developmental Biology

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APPENDIX A
A Planning Questionnaire for Preparing to Team Teach

The questions on this form are designed to help instructional teams arrive at a shared understanding of their approach to a course. Doing so will help establish expectations for the instructors and help the team understand how best to support students in the course.

A note on usage: These questions are intended to help surface an array of issues over the course of a collaboration. They are loosely ordered along a typical planning trajectory from beginning a collaboration, to course planning, and course implementation. It is unlikely that any team would be able to process all of these issues at once. Therefore, we recommend that each member of a teaching team individually review these questions and identify those topics for discussion that would be most beneficial to their collaboration and context and then return to this over time as planning and implementation unfold.

A. Laying the Groundwork for Collaboration (particularly for faculty who have not previously taught together):

1. What do you most enjoy about teaching?
2. What are your particular strengths in teaching?
3. What do you find most challenging about teaching?
4. Have you co-taught a course before? If so, what lessons about co-teaching have you drawn from that experience?
5. Have you taught in this arena before? What is particularly interesting to you about teaching these topics/this subject?
6. How would you describe your teaching style? What do you think is most important for your co-instructor(s) to know about your approach to teaching?
7. How do the social and professional identities you hold influence your approach to teaching?
8. To make this course successful, what do you feel you need from your co-instructor(s)?

B. Goals, Aims and Structures of the Course:

1. What do you hope students will gain from this course?
    a. How might this differ for students from different backgrounds?
    b. What will be the best evidence that students have made these gains in the course?
2. How should students' motivations for taking this course affect your approach to the class?
    a. In what ways might student background (e.g., discipline, year in school, degree program, social identities or political affiliation) influence their motivations?
    b. In what ways do you think the class will be able to meet the students' expectations?
3. How do you see your expertise contributing to the course? How will this expertise complement the expertise of your co-instructor(s)?
4. How do you see student background knowledge or expertise influencing/contributing to the course (if at all)?

C. Planning

1. How do you typically plan a course? What is your process?
2. How do you typically plan an individual class session?
3. For this class, what should the joint planning process look like? How often should you meet?
    a. Where should you divide and conquer?
    b. Where should you jointly plan?
    c. What process should be used to provide feedback and come to final decisions?
4. Where/how should you share draft syllabi/assignments/tests/lecture materials etc.?
5. How will you equitably divide major administrative tasks (e.g. dealing with waitlists/overrides; posting materials to Canvas; handling logistics of course activities and exams; ensuring that technology will work)?
6. How can you best maintain communication about the class as it progresses? (e.g., Where possible, will all instructors attend class?)

7. (If relevant) How will GSIs or Instructional Aides (IAs) be incorporated into the class and the instructional team? What tasks will GSIs or IAs be specifically responsible for?
8. (If relevant) How will you best integrate guest speakers into the course?

D. Assignments and Grading

1. What types of assignments will give you the best insight into what your students have learned?
   a. To what degree should assignments be individual vs. group?
   b. Are all assignments graded?
   c. Will you require/review drafts?
2. What are your typical grading practices?
3. What degree of collaboration should you establish around grading and feedback? How will grading/evaluation standards be created?

E. Course Policies

1. What types of course policies would be useful for this course (e.g., attendance, electronic devices, late penalties, etc.)? Why?
2. How should students communicate questions to the instructional team?
3. What process will you use to confer on, and respond to, student questions?

F. Co-Facilitation/In-Class Teaching

1. When running an individual class session, do you prefer to stick to a clearly timed agenda, or do you tend to treat the agenda as flexible?
2. What are your expectations for student participation? How do you like to facilitate student participation?
3. How do you feel about a coinstructor jumping in to add an additional point when you are the primary presenter or facilitator?
4. How would you feel about a coinstructor contradicting what you say or offering a different viewpoint? How would you handle this situation?
5. How might your identities or expertise influence students' perceptions of you? How does this change the dynamic between you as coinstructors, if at all?

G. Other (Each instructional team faces its own specific context. Consider what additional questions would be useful to address as a team.)

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