RESOURCE MOBILIZATION IN RED

A Tip Sheet from Revolutionizing Engineering Departments (RED) Participatory Action Research

For members of National Science Foundation Revolutionizing Engineering Departments (RED) teams, their Community of Practice (CoP) provides important support as they develop and implement their change projects. Resource mobilization–an important dimension of the CoP–allows RED teams to access useful strategies that reinforce their change work. Resource mobilization refers to the processes by which a group secures, pools, and directs resources toward desired changes through collective action (Jenkins 1983). Resources may be broadly defined as social ties, specialized skillsets, shared repertoires for action, and legitimacy, as well as financial resources (Edwards and Kane 2014). This Tip Sheet focuses on how resources are mobilized by RED team members in the CoP and provides examples of that mobilization. This tip sheet uses research findings from conference calls with NSF RED grantees. Contact us at grp_redpar@rose-hulman.edu for additional information.

Aggregating Resources

CoPs are ideal sites for compiling resources across RED teams and are especially useful when people learn from the examples of other CoP participants. As RED CoP participants mobilize a variety of resources, their discussions lead to the collection of change assessment strategies, resources to improve team dynamics, and generative discussions on embedding diversity/equity/inclusion (DEI) into their change projects.

➡ **TIP:** Use the examples of other project teams in order to identify and leverage resources that can benefit your own project.

"I took notes. I was very impressed with how everyone is measuring change. There's such a broad array of tools. Lots of measuring enrollment and demographics, tracking that. Some groups are collecting baseline data. Lots of focus groups, students or faculty. " RED Project Coordinator

"I've learned a lot from everything that REDPAR members have done with getting resources together, so I'm gathering resources beyond sharing my personal knowledge." RED team member

Creating Shared Understandings

In addition to their usefulness as sites for compiling resources, CoPs like RED allow for the formulation of shared understandings of the impediments to change and solutions that can help participants address issues. Since higher education organizations have unique impediments to change, the CoP provides space for participants to discuss issues and create solutions (Kezar 2014).

➡ **TIP:** Given that many impediments to academic change are similar yet distinct challenges across different contexts, use your CoP as a sounding board for proposed changes and a way to identify resources that can support collaboration on possible solutions.

"I appreciate any opportunity to share the ideas we have. A lot of us have come up with innovative new practices and technology and don't have enough time to transfer that technology. It's great that we can then exchange this info and others can adapt it… actually establish meetings to transfer ideas… I appreciate any time we get for moving technology from one context to another." RED team senior personnel

Reflection on Team Dynamics

Finally, CoPs can offer a space for RED teams to reflect on and discuss team dynamics; understanding these dynamics is itself a resource that can be mobilized. Cross-disciplinary teams, like those who work on RED projects, may experience differences in expertise and background that can create communication challenges about the work to be done. The CoP provides a dedicated space for teams to discuss team dynamics and resolve differences. When participants discuss team dynamics and role-specific differences in a dedicated space, they arrive at an enhanced understanding of the unique skillset that each team member brings to the project.

➡ **TIP:** CoPs can provide a productive environment in which to identify team members' contributions and increase understanding of diverse perspectives.

> "There's been a lot of time and effort just spent on getting people to understand each other in the room, our theoretical background and assumptions, and even among the engineering education researchers on our team, people are coming with different theoretical assumptions. So we've spent quite a bit of time, very worthwhile time, coming to a common understanding. There is one person taking the lead and we have conversation and try to come to some consensus and then the lead author takes the lead from there in terms of how we are approaching it." RED Team social scientist

By their very nature, RED projects bring together team members representing a wide range of disciplines. The CoP facilitates collaboration and understanding between individual team members and across RED teams, through opportunities to share resources and advice, potentially leading to improved cross-disciplinary understanding. RED teams also see the importance of strategic partnerships, and they can leverage the CoP in order to connect and build relationships with peers.

Check out other REDPAR Tip Sheets that can help, available at academicchange.org and http://depts.washington.edu/cerse/research/current-research/

- **Communicating Change**
- **Communities of Practice**
- **Creating Shared Vision**
- **Creating Strategic Partnerships**
- **Forming and Developing Teams**
- **Leadership Succession**
- **Starting a Change Project**

Material for this Tip Sheet is drawn from:

Edwards, B. & Kane, M. 2014. "Resource mobilization and social and political movements" in *Handbook of political citizenship and social movements,* edited by H. van der Heijden. Edward Elgar Publishing: 205-232.

Jenkins, J. C.. 1983. "Resource mobilization theory and the study of social movements." *Annual Review of Sociology* 9 (1): 527-553.

Kezar A. 2014. *How colleges change: Understanding, leading, and enacting change.* New York, NY: Routledge.

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Grant Nos. 2005244 and 2005307

RED COMMUNITY OF PRACTICE

A Tip Sheet from Revolutionizing Engineering Departments (RED) Participatory Action Research

The work of academic change makers is often framed as an effort that creates impact on stakeholders, such as students, faculty, and others, in the form of new curricula, revised departmental practices, etc. Additionally, as a result of their on National Science Foundation RED projects, RED project team members also experience a positive impact through their participation in a community of practice (CoP). A community of practice is defined by Wenger as follows:

> Communities of practice are groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly. (Wenger 2011)

More than just a collection of individuals who possess a shared interest, a community of practice is characterized by several distinct features: they are practitioners; they develop a shared repertoire of resources (such as experiences, stories, tools, ways of addressing recurring problems) that represent their shared practice; and they develop their community over time and as a result of sustained interaction (Wenger 2011). This Tip Sheet focuses on the features of the CoP that RED team members engage with, and argues for the benefits of establishing a CoP in an academic change project. This Tip Sheet uses research findings resulting from focus group discussions, conference calls, and a survey with the National Science Foundation RED grantees. Contact us at redpar@rose-hulman.edu for additional information.

As members of the RED Consortium, RED team members interact through regular online discussions and an annual consortium meeting. Through these interactions, RED teams, located across the country and spanning multiple disciplines, learn about the work of other teams and adopt new practices into their own projects. The RED CoP has also resulted in collaborations and partnerships between teams, thus providing opportunities for teams to leverage their work and expand their influence. For example, one such collaboration resulted in a project focused on diversity/equity/inclusion. Finally, members of the RED CoP conduct their interactions as colleagues with a goal of producing mutual benefit for all members. Overall, our analysis of the RED CoP suggests a way to understand the impact of the RED program on the team members who participate in its CoP.

Adoption and Learning through the CoP

The research data collected with RED teams suggests that team members learn through their interactions as a CoP, and their learing can lead to the adoption of innovative practices developed by other teams. In addition, the RED team members can brainstorm ideas in a safe environment where others share similar concerns and interests. As a result, team members can benefit from developing ideas and obtaining feedback prior to implementation of their ideas. The CoP also provides a space that encourages sharing of ideas so other team members can adapt them to their own contexts, thus accelerating idea transfer and reducing workload.

➡ **TIP:** Consider establishing a CoP early in the life of your academic change project and highlight the benefits of a CoP to both prospective team members and potential partners. The CoP provides access to diverse thinkers and individuals with a wide range of experiences from different disciplines.

"In the [RED Consortium meeting] with social scientists, we get to deal with challenges that others are also dealing with using the same concepts. It is nice to brainstorm with others who can respond and say, have you thought of this theory, etc."

Collaborations and Partnerships

By their very nature, RED projects bring together team members representing a wide range of disciplines. The CoP facilitates collaboration and understanding between individual team members and across RED teams, through opportunities to share resources and advice, potentially leading to improved cross-disciplinary understanding. RED teams also see the importance of strategic partnerships, and they can leverage the CoP in order to connect and build relationships with peers.

➡ **TIP:** Academic change projects often require collaborators and partnerships in order to be successful. The CoP can function as the foundation for these relationships through sharing challenges and highlighting commonalities in each other's work.

> "On the last day [of the RED Consortium Meeting], we talked about a special issue in a journal to have different cohorts publish papers on a variety of topics, and this could be one topic: how many of us are approaching the same problem from different angles and perspectives, how are each of use approaching the same general problem, how are we doing different assessments? We could also present it at a conference."

Support and Collegeality within the CoP

Finally, we see important support and collegiality emerging in the context of the RED CoP. The CoP provides benefits that were not specifically expected when we began our work with RED teams, and not all RED teams experience these benefits to the same degree. For the RED teams on the whole, however, the CoP offers important support that can make the work of academic change more manageable and productive. A RED team member interviewed about their CoP provided the following insight:

> "There's a lot of brain wealth, for lack of a better phrase, in these groups, and I would absolutely suggest reaching out, you know, there's a lot of expertise to be had. Whether it's through that group or through the social scientists or education individuals that are associated with this group. So I would absolutely say to reach out to your colleagues. I know that I am always very excited when anyone from RED reaches out to me. So I am extending this too, if you're interested, definitely reach out.

Check out other REDPAR Tip Sheets that can help, available at academic change.org/

- **Communicating Change**
- **Creating Shared Vision**
- **Creating Strategic Partnerships**
- **Forming and Developing**
- **Leadership Succession**
- **Starting a Change Project**

Material for this Tip Sheet is drawn from:
Wenger, E. 2011. Communities of Practice: A Brief Introduction. http://hdl.handle.net/1794/11736

Cite as: Center for Evaluation & Research for STEM Equity and Rose-Hulman Institute of Technology (2023). RED Community of Practice: A Tip Sheet from Revolutionizing Engineering Departments (RED) Participatory Action Research. Retrieved from http://depts.washington.edu/cerse/research/current-research/

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Grant Nos. 2005244 and 2005307

PLANNING FOR LEADERSHIP CHANGE

A Tip Sheet from Revolutionizing Engineering Departments (RED) Participatory Action Research

Every academic change project requires planning, from the selection of team members and identification of needed resources, to setting project goals and creating metrics. Many academic change makers, however, neglect to plan for change in leadership on their projects. Leadership change can take many forms; for example, the dean who is the project's champion takes a position at another institution, or the department head who serves as the project's principle investigator decides to retire early. Planning for leadership change should be a component of your planning process, since leadership changes are likely in today's volatile academic environment. This tip sheet can help you prepare for leadership change by planning for leadership succession, using research findings resulting from focus group discussions, conference calls, and a survey with the National Science Foundation RED grantees. Contact us at redpar@rose-hulman.edu for additional information.

Leadership Change in RED Projects

In our work with 26 RED teams, we conducted a short survey to determine the frequency of leadership change in RED projects. Of the 15 teams that responded, we found a high frequency of leadership change at both the PI level and/or at the dean/provost level. This rate suggests that such change is common in RED projects, and RED team members acknowledge in hindsight that leadership change was not something they anticipated or prepared for.

Type of leadership change	**% (count)**
PI change	46% (7 of 15 programs)
High-ranking academic leadership change	86% (13 of 15 programs)
Change in both PI and high-ranking academic leadership	40% (6 of 15 programs)

Prepare for Leadership Succession

Based on our work with RED teams, we find that planning for leadership change can be a vital component of a project team's planning process, specifically by preparing for leadership succession at the start of a RED project. For example, by creating a full record of the project, the team relies less on the memory of a single leader, like the PI, and can feel more confident that all aspects of the project are being attended to. In addition, the project team can cultivate allies and champions beyond the limits of current leadership, in order develop a broader range of support in anticipation of a change in leadership.

➡ **TIP:** At the start of your change project, prepare for leadership succession by documenting team roles, responsibilities, tasks lists/task status, in order to capture the operational dimensions of the project.

Align the Team with Shared Vision

A change in leadership within your project or department has a direct impact on both the immediate tactical direction, as well as the long-term strategic direction, of the change project. Change teams should use the transition period to ensure that the entire team and the new leadership are on the same page. Realigning the team around a shared vision will lay the foundation for long-term success.

➡ **TIP:** Revisit the shared vision document the team created at the start of the project and facilitate a conversation that encourages all team members and the new leadership to share their thoughts, ideas, and perspective on the change initiative. Having a common shared vision will help rally the team and provide a sense of mission for the team to follow.

> "When the proposal was funded, I had already stepped down from my leadership position… We had new faculty, new leadership, and that really forced us to sit back and think about what we wanted to do now that all the players had changed, and so we spent really a whole year just trying to redefine what we're doing."

> "The other deans, because they're new, they're excited to join this because it seems like something that does align with where the university wants to go. Any new dean wants to have some new wins under their belt. There's a lot of good timing for what's happening and that's certainly a piece of the structural effects that are producing the change."

Seek Potential Opportunities in Leadership Change

A change in leadership at the department, college, or university level can also provide an opportunity for the team to expand the reach of their project. Teams must invest time and resources into cultivating relationships with the new leadership hierarchy. These relationships can help sustain a change initiative by making it part of the organizational culture. Teams must also be aware of challenges as they attempt to spread their initiative beyond the initial project boundary. Each department has its own microculture, and teams need to be flexible as their effort is adapted to other contexts.

➡ **TIP:** Investing in relationships and partnerships with stakeholders and new academic leadership can help embed the principles of the change initiative as part of the rituals and cultures of the organization.

> "It has helped us expand beyond [our department]. We had to be adaptable to make these transition in leadership. As we try to support other departments, getting them on board and making some of these changes college-wide, we have to be adaptable because every department has a different context. Our transitions have been a learning experience in having to be adaptable."

> "I would say one unforeseen benefit has been the direction that the institution has taken. We have hired a new President, and we had a strategic planning process unfold after the grant was funded. In our efforts to align the goals of the grant with the direction of the institution, we were able I think to achieve greater buy-in across the institution."

Check out other REDPAR Tip Sheets that can help, available at academic change.org

The following sources were consulted for this Tip Sheet:
Parfitt, C.M. Creating a Succession-Planning Instrument for Educational Leadership. ICPEL Education Leadership Review, vol. 18, no. 1-December, 2017 ISSN: 1532-0723.

Cavanaugh, J.C. Who Will Lead? The Success of Succession Planning. Journal of Management Policy and Practice, vol. 18(2), 2017.

Cite as: Center for Evaluation & Research for STEM Equity and Rose-Hulman Institute of Technology (2022). Planning for Leadership Change: A Tip Sheet from Revolutionizing Engineering Departments (RED) Participatory Action Research. Retrieved from http://depts.washington.edu/cerse/research/current-research/

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Grant Nos. 2005244 and 2005307

STARTING A CHANGE PROJECT

A Tip Sheet from Revolutionizing Engineering Departments

Congratulations! You have decided to begin an academic change project. It might target students' learning, or faculty development, or curriculum reform, or any other worthy initiative. Every change project needs to begin with a solid foundation to ensure success all along the way. This tip sheet presents strategies for starting a change project, using research findings resulting from focus group discussions and conference calls with the National Science Foundation's Revolutionizing Engineering Departments (RED) grantees. The quotes from research participants highlight these findings. Contact us at redpar@rose-hulman.edu for additional information.

Form and/or Recompose the Team

The initial conceptualization for a change project is often done by a small group of individuals. Once the decision is made to start the project, however, you may need to either form a team or recompose and expand your team in order to bring together the right individuals to do the work. A collection of individuals working together on a project doesn't necessarily make a team. To become a team, individuals need to work together toward common goals and objectives. Each person must feel that they are contributing something of value and that their identity, skills, and expertise are valued by the team.

➡ **TIP:** Take time early in the initial phase to form the project team. Consider who you are inviting to be on the team: are you considering the expertise, experience, and other contributions each individual brings to the team, or are you primarily choosing individuals based on who you believe is easy to work with? You should consider the value each person adds to the team, their past work, their professional backgrounds, and their personal interests that can be of use to the team and on the project. Remember that your project will be stronger and more successful if you bring together individuals with diverse tools, techniques, skillsets, and knowledge.

> "If you think that you're prepared for a major change agent process like this, you're deluding yourself. I think you pull together the right thing, the right people, create strengths in areas where you need strengths, and then you pursue even a flexible one, you change your own structure, your own approach to things as you go along." Quote from the Panel Discussion or RED Research

Set Short Term Goals for the Project and for Team Members

Early wins for your project can help motivate team members and demonstrate the feasibility of the project to stakeholders. Consider creating a few goals that are achievable in the first year. Be sure that the entire team has a chance to contribute their ideas about what the project should achieve. As a way to ensure each team member creates their own stake in the project, ask them to create individual goals that align with the project.

➡ **TIP:** Working together as a team, draft a description of what the project will achieve based on input from all team members. In addition, give each team member the opportunity to create a set of personal goals that they can achieve while working on the project, such as moving forward their own research agenda, expanding their professional network, etc. Establish an accountability system, such as a Gantt chart, Microsoft Teams group, or Google form. This will provide all team members with a shared space in which to update the team on their work and make progress toward the first year goals.

"[S]ome of the conversations we had . . . where we were trying to talk to each other and get down on paper with drawings and so forth what this project was about helped us to kind of lay a foundation for working together, which I think was effective."

"It was great putting together a schedule and putting that on a Google drive. It was great to see who's doing what and be able to keep any eye on the bottlenecks." Quotes from the Panel Discussion or RED Research

Reflect on Opportunities and Challenges

While the start of the change project is likely to be an exciting time, you should also spend time with your team to identify specific opportunities and challenges that could be encountered as an individual contributor and/or as a team. Together the team can discuss: what are the top challenges? What are the top opportunities for the project and for the team? Working on a new change project is sure to bring some worries and challenges, especially in the first year. Take comfort in knowing that change project teams have gone through many of the same challenges that you anticipate encountering. These teams find that sharing knowledge about those challenges, both on your campus and across institutional boundaries ,can be very helpful.

➡ **TIP:** Encourage your team to identify opportunities and challenges at the start of the project. It is important to reach out to others, either on your own campus or in your professional network, to learn from them about the opportunities and challenges they encountered in their first year.

"What we [different RED teams] share is about organizational change. We all face the same difficulties and setbacks, and hearing that from the rest of the cohort makes me feel much better. It helps us cope with the issues that we deal with."

"To me the most valuable, was mapping out who we need to be concerned about, who's powerful, who's on board, and then coming up with how to engage with those folks. Having some sense of a game plan. Even just in the past month, we've realized, oops, we missed someone. That was valuable." Quotes from the Panel Discussion or RED Research

Check out other REDPAR Tip Sheets that can help:

Communicating Change, Creating Shared Vision, Creating Strategic Partnerships, and Forming Teams, available at academicchange.org

Material for this Tip Sheet is drawn from:

Harvard Business Review. 2013. *On Teams*. Harvard Business Review Press, Boston, MA.

London, J.S., Berger, E.J., Margherio, C., Litzler, E., and Branstad, J. 2017. The RED Teams as Institutional Mentors: Advice from the First Year of the "Revolution". In ASEE Annual Conference and Exposition, Conference Proceedings. https://peer.asee.org/28997

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Grant Nos. 1649379, 1649318, 2005244, and 2005307

CREATING STRATEGIC PARTNERSHIPS

A Tip Sheet from REvolutionizing engineering and computer science Departments (RED) Participatory Action Research

Creating strategic partnerships with stakeholders, supporters, and collaborators is a key tactic for change management. This tip sheet presents approaches used to create successful partnerships, using research findings resulting from focus group discussions and conference calls with NSF's RED grantees. The quotes from research participants highlight these findings. For more information, contact us at redpar@rose-hulman.edu.

Identify the Motivation for Partnerships*

Teams emphasize a broad range of possible motivations for engaging in partnerships: proactively building connections, diversifying or supplementing the team's skills, finding and cultivating advocates, attracting resources, increasing impact on- and off-campus, and more. Unclear or opaque partnership motivations lead potential partners to wonder at the value and merits of a relationship. By clearly identifying the motivation for the partnership, all potential partners can evaluate that motivation relative to their own needs and abilities to contribute.

➡**TIP:** Engage in project soul-seeking to identify the meritorious reasons for partnering on an effort and inquire about the motivations of the potential partner; being explicit and open is an advantage and helps avoid operating with an unstated agenda.

One team's work involved fitting into institutional requirements, an area with which they were unfamiliar. To advance their work, "We met with our legal counsel. So when we draft language on admissions, and when we are revising admissions standards in future years, [we know] what is or not allowable by law, and what we can articulate or not articulate. Also, [we went to] our publicity office on campus to see about how do we market or what kind of logo we can use, what kind of acronym we can use."

Align and Leverage Social Capital and Institutional Capital

Strategic partnerships begin with relationships among people, not groups. Effective change agents take advantage of opportunities to invest in relationships. From the institutional perspective, resources including technology, information access, expertise, control over decision-making, and space comprise capital that can be contributed to or requested from partnerships. Bringing the interests of the partners into alignment, along with the capital they can contribute, generates forward progress in change efforts.

➡**TIP:** Create a catalogue of the personal and institutional capital and networks "owned" by members of the potential partnership, including that of various team members; this catalogue can reveal possibilities for aligning interests among partners.

While examining ways that existing relationships could support the current project, one team discovered, "One of our research questions has to do with scalable assessment. So through another project we've gotten to know the people at an online grading platform. We're gearing up to use them on a pilot basis. They've been responsive and that has been a good collaboration so far."

Establish Partnership Goals and Governance

Change efforts involving partnerships must serve the interests of all parties, both institutionally and individually. Communication about the goals of the partnership and how the partnership operates allows all parties to remain clear on how their goals will be met. Points to consider include: what formal and informal communication channels will be used, what activities can lead to early and obvious wins for all participants in the partnership, what are the clear metrics for short-term and long-term success for all partners, and what will be the meeting schedule.

➡ **TIP:** Leave no feature of the partnership unstated or assumed; although conflict is inevitable, the more specific partners are about who does what, when, to what ends, and how, the more likely conflict can be productive rather than relationship ending.

When describing the developing relationship with their university's teaching and learning center, one team stated "We had the conversation with them: how are you planning to do this? What is your timeline? What logistics are involved? We are using them to think about what parts of the courses we can flip, how to do more active types of teaching, and using different types of assessment. They're going to come back to us with some ideas and get together with junior instructor and discuss what they can do: what can you teach in a different way? How can we help you link information from one module to a different module? What does that mean? What will that look like? What can you demonstrate that shows those concepts?"

Address Struggles with Maintaining Successful Partnerships

Successful change projects invest in work of creating a shared vision for change, identifying the contributions to and impact for each partner, and re-negotiating as circumstances (e.g., institutional priorities or team membership) shift. Work styles, goals, and membership of partner groups change over time, as do the institutional pressures and responsibilities of partner organizations.

➡ **TIP:** Practice the approach of "assume positive intent" on the part of partners, and use an attitude of inquiry to query the situation to discover how partners are experiencing the struggle.

In working to impact the composition of the incoming class, one team experienced challenges with their partners. They said, "Our biggest pushback is from the admissions people regarding the rules of what we can try to extract from students using survey tools, and also how to understand how to keep students. We try to get scholarships and money, but we're running into state ordinances, if they are from the state we have to take them and we can't have targeted scholarships. That's not to say we can't solicit an outside group to offer scholarships to students who are underrepresented in engineering. So how do we get past the challenges of admissions and how do we work with them...there is a staff member in admissions who was listed as a collaborator on the grant, but we try not to overly rely on him due to how busy he is. So we're trying to identify people who can work with us. If we get caught up in bureaucracy, we won't be able to meet deadlines."

*We used the partnership framework of Pamela Eddy in organizing these results.

Eddy, P. L. and M. J. Amey. 2014. Creating strategic partnerships: A guide for educational institutions and their partners. Sterling, VA: Stylus Publishing.

Eddy, P. L. 2010. Partnerships and collaborations in higher education. ASHE Higher Education Report 36(2). K. Ward & L. E. Wolf-Wendel, eds. San Francisco: Wiley Periodicals.

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Grant Nos. 1540042 and 1540072

CREATING SHARED VISION

A Tip Sheet from REvolutionizing engineering and computer science Departments (RED) Participatory Action Research

Shared vision is a foundation for transformational and sustainable change. Shared vision brings a group of people into alignment as a coalition and force for change. Shared vision is inclusive and empowering. Rather than focus on buy-in, successful change agents create opportunities for the coalition to develop goals and plans together. This tip sheet presents approaches used to create successful partnerships, using research findings resulting from focus group discussions and conference calls with NSF's RED grantees. The quotes from research participants highlight these findings. For more information, contact us at redpar@rose-hulman.edu.

Whom Do Change Agents Engage?

Successful change agents engage a broad array of stakeholders, including faculty and instructors of all stripes, students, staff, advisory boards, local professionals, support offices, administrations, alumni, and more. The effort it takes to engage these stakeholders early in the change process is repaid through better ideas, increased engagement, and both tacit and explicit support.

➡ **TIP:** During a team meeting, create a master list of every member's professional relationships, with both people and groups, being a specific as possible. In other words, name names. Thinking broadly, identify which of these people and groups are stakeholders in the change effort or could otherwise participate in the vision process. Make a schedule to reach out to these stakeholders on a regular basis.

"I just want everyone to think about long lasting organizational change, you have to hear the voice of every person in that environment, the staff, the TAs, the administration, so while faculty are the drivers of the change, it will only be sustainable if everyone is on board."

"What we call the naysayers are a critical part of our social network, we want them to be naysayers. When we were writing the proposal they would come forward and criticize and help us find any potential drawbacks so we can improve them together. They may resist change, but they're part of the intended structures. We want them there, we want them to speak up, we want to hear them so we can see the problem from various angles."

Why Should Stakeholders Participate in Shared Vision?

Change agents can build a broad coalition for change by understanding the reasons individuals have for engaging in your change effort. Nontraditional incentives, the opportunity to engage in an open and participatory process, support from institutional leadership, and compelling evidence of the need for change all contribute to the desire for stakeholders to participate in developing shared vision. Change agents can highlight different benefits of participation as stakeholders reveal their interests.

➡ **TIP:** Create a living document that captures stakeholders, their needs and interests, and benefits resulting from the shared vision process. Be specific and bold in developing this list. Listen carefully and ask for clarification when stakeholders identify a new need or a new benefit.

"In my department, I made sure the first time I evaluated everyone I carefully considered their teaching evaluations. It is clear that success in teaching is important for their advancement in their career and will be part of their evaluation. Most people welcome that and said they like that we pay attention to teaching evaluations. We are also accounting for these activities in their workload. Changing the teaching style now counts as a new course."

What Does Shared Vision Look Like?

Change agents embrace a broad conception of shared vision, including common language, shared expectations, shared sense-making, meaningful roles for all participants, and shared products. By speaking about issues with the same terms, identifying how all can contribute, and sharing the credit for impacts and outputs, change agents can shepherd the vision development process.

➡ **TIP:** Allow team members to specify what they expect, what they can offer, and what they need to be successful. Put all those cards on the table. When people see the entire picture of the team context, they are more apt to be creative and inclusive about solutions and promoting the team's interests. Continue these conversations so that people's roles and contributions can evolve if outside commitments change.

"I think we've all learned a lot about what those words mean. We used social justice, humanitarian, sustainability, peace, in the proposal, but we didn't have a common understanding of what those words meant. I'm not sure any of us had an understanding of what that would really look like in engineering. We've spent some time around trying to discuss now what we think those terms mean. Certainly my understanding of them is different now...I think some of that has also influenced what we think success looks like or what the kinds of things are that we're going to do."

"Some research-interested faculty got involved in thinking about this change as a research problem: How do you make prep work better? When is the in-class time? What sessions can you develop to test this? So turning the teaching into a research problem has gotten some of the faculty interested."

What Strategies Encourage Shared Vision?

The work needed to create shared vision is significant in time invested, scope, mental effort, and impactful on the other work of change agents. Given that fact, specific, ongoing effort is needed to implement the strategies that promote shared vision. Consider brainstorming sessions, regular co-working times, collaborative management, and communication efforts as opportunities for shared vision development.

➡ **TIP:** Few professionals respond to being told what they should think, while many respond to telling others what they think. Facilitate scenarios that allow for opportunities to share thoughts, ideas, and perspectives. Even skeptics can participate in a change effort when change agents cheerfully request "tell me what you think," followed by solution generation and opt-in ways to continue the engagement.

"What I remember from our retreat, it was the first time the team's vision was shared with a larger group. I was surprised with how many people gave us feedback that it wasn't revolutionary enough. There were more boundaries to push. So, some ideas came out of the retreat that weren't part of the initial plan."

"I think that having everyone in the room, and having everyone feel included, really helped gain traction and gain momentum more so than we would have in other ways."

For more information on creating shared vision, see Developing a Shared Vision for Change: Moving toward Inclusive Empowerment (preprint manuscript) at https://osf.io/f7jgn. For more information on the RED program, see Making Academic Change Happen at acacdemicchange.org.

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FORMING AND DEVELOPING TEAMS

A Tip Sheet from Revolutionizing Engineering Departments (RED) Participatory Action Research

Forming a capable and efficient team is a key tactic for change management. In addition, teams require specific development if they are to operate effectively together to accomplish their goals. This tip sheet presents strategies for forming and developing teams, using research findings resulting from focus group discussions and conference calls with the National Science Foundations RED grantees. The quotes from research participants highlight these findings. Contact us at redpar@rose-hulman.edu for additional information.

Bring Together Both the Key Players and Proven Leaders for the Change Project*

The size and scope of many change projects require the formation of a project team. Selecting who should be on this team is a crucial first step. John P. Kotter, author of *Leading Change* (2012), suggests that change agents build a "guiding coalition" for the project, a "powerful force" that has the right members who share a level of trust and a shared objective to accomplish.

➡ **TIP:** Recruit individuals who possess position power on your campus. This power may be reflected in their roles, titles, or other markers. Team members with position power can use their positions to ensure that progress is not stalled or blocked. The team should also consist of proven leaders who have demonstrated that they can drive the change process. The team should be respected by others in the institution so that the teams' ideas and changes will be taken seriously. Membership in the coalition can also offer those new to major change projects the opportunity to cultivate their experience and build campus credibility.

"I think there's advantages and disadvantages to the team around this table by having the dean and chairs be the PIs. On the one hand, it gives untenured faculty the comfort of knowing that this is a valued activity and if they participate, it will be rewarded and appreciated in their tenure packet. It also means it's really top down." [RED Project Co-PI]

Invest Time to Cultivate Trust Among Team Members

Teams who are embarking on change projects often get to work quickly to accomplish tasks. They frequently neglect to invest the time needed to cultivate trust among team members who may not have worked together before. A team may find it beneficial to engage in some initial activities that help team members get to know one another, such as a project retreat or workshop. If the activities the team engages in encourage respect and mutual understanding, then you have provided the team opportunities to build trust.

➡ **TIP:** Invest time building trust within the team. Change projects require that team members take risks and invest their own credibility on campus. Team members must trust one another enough to engage in risk-taking, knowing that their team will back them up. Schedule a workshop or project retreat that contributes to the development of the team. It may be the case that team members need to build their group expertise on a particular dimension of the change project. A learning environment like a workshop can allow team members to do that.

"Several of us had not worked together on a research project before, but we've been collaborating for a long time. We've worked on other projects together. We have immense respect for each other. Even if we disagree, we disagree respectfully." [RED Project PI]

Recognize and Value the Expertise of Team Members

By bringing together a diverse and credible group of individuals as the guiding coalition, you have the opportunity to leverage a broad array of skills, knowledge, and abilities to accomplish goals. It is important, therefore, to inventory this expertise and to address any gaps that may impact results.

TIP: Engage individuals who bring a wide range of relevant points of view and skill sets. This will allow the team to make decisions based on the best available practices, information, and data. An inventory of the team members' skills can help identify any gaps that should be addressed early in the project. Taking time to value this expertise explicitly builds respect among team members. Remain open to recognizing gaps in expertise on the team as the project progresses and add team members appropriately.

"I didn't realize how much we needed a project manager until we had one. Our own team had serious issues with communication, with time management, with prioritization, and it's because not a single person on the team has been trained to do that, and it's not necessarily, I mean it's not our strong suit. We're researchers. . . Now that we have a project manager, I'm kind of wondering how could we have ever expected to be successful without one?" [Social Scientist, RED Project Team]

Develop Norms to Facilitate Team Governance and Decision-Making

At the early stages of the change project, it is important to establish team norms, the set of rules for conduct that are mutually agreed to by the members of the team. Jon R. Katzenbach and Douglas K. Smith, authors of "The Discipline of Teams" (2005), suggest that these rules address meeting attendance, discussion, confidentiality, and constructive contributions. By explicitly setting expectations early in the project, you can ensure that the team will not be derailed by misunderstandings and miscommunication.

TIP: Invite team members to engage in the process of writing a Team Contract, the rules that will govern their conduct while they on the team. These rules clarify how each team member will contribute to the project work, what the decision-making process will be, and how accountability will be assessed. The Team Contract should be revisited periodically throughout the life of the project, with each team member given the opportunity to suggest revisions. This is particularly important when new members of the team are added.

Check out other REDPAR Tip Sheets that can help:

- **Communicating Change**
- **Creating Shared Vision**
- **Creating Strategic Partnerships**

Available at academicchange.org

*Material for this Tip Sheet is drawn from John P. Kotter's *Leading Change (*Boston, MA: Harvard Business Press, 2012), and Jon R. Katzenbach and Douglas K. Smith's "The Discipline of Teams" (Harvard Business Review, July/August 2005).

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COMMUNICATING CHANGE

A Tip Sheet from REvolutionizing Engineering and Computer Science Departments (RED) Participatory Action Research

Communicating change to various stakeholders is a critical aspect of change management. This tip sheet presents strategies that highlight research findings resulting from focus group discussions and conference calls with NSF's RED grantees. The quotes from research participants highlight these findings. For more information, contact redpar@rose-hulman.edu.

Listen Well

When given the opportunity to engage in authentic, supportive dialogue, stakeholders will happily provide their perspectives, feelings, needs, and constraints, to allow change agents to inform their work and create meaningful messages about the upcoming changes.

✔ **TIP: Use various strategies like formal or informal focus groups, facilitated group listening sessions, a question dropbox, or social media requests to listen to stakeholders.**

"To think about long lasting organizational change, you have to hear the voice of every person in that environment, the staff, the TAs, the administration...so while faculty are the drivers of the change [in our project], it will only be sustainable if everyone is on board."

Create an Intentional Approach

Different stakeholders need to learn about different aspects of the project. Creating uniformity of core premises among various types of communications emphasizes the quality of the change effort while enabling nimble and flexible messaging.

✔ **TIP: Adopt strategies like core metaphors or imagery, a set of talking points with versions formulated for different audiences, and a communication calendar to create unified messaging.**

"I run in to the provost once every three weeks, and I have my talking points and my elevator pitch. It helps to be prepared. He needs to know the points very quickly."

Acknowledge Shared Values

Successful change agents create opportunities to communicate the relationship between their change and the story and values of the department or institution - things like workforce preparation, service and stewardship, integrity, equity and justice, or faith.

✔ **TIP: Craft messages that communicate how change supports the shared values, how change aligns the organization's values to today's realities, and how change creates an opportunity to position the organization to enact shared values.**

"I think all of us want to know how can we make the engineering curriculum more inclusive, what can we do, and at the same time everybody still struggles with needing to cover core content, and if we do something else, will we lose that."

Speak to Stakeholder Motivations

Change projects have numerous stakeholders, all with different interests in the process and outcome. Successful teams understand that motivations for participation in or resistance to change activities vary widely among these stakeholders, and that motivations are complex.

✔ **TIP: Frame the project in a manner that appeals to various motivations, to allow stakeholders to find elements of interest to them.**

"Some very research interested faculty got involved in thinking about this [project] as a research problem, for example, how do you make pre-work better, when is the in-class time, what type of sessions can you develop to test this? So turning the teaching into a research problem has gotten some of the faculty interested."

Place Communication in Context

Change occurs in the context of the institution, discipline, and national landscape in higher education. Creating natural connections to these contexts helps stakeholders understand the larger picture and identifies points of synergy for communication efforts.

✔ **TIP: Emphasize connections to existing or planned efforts like strategic plans, major structural reorganizations, capital campaigns, national reports, disciplinary society position statements, or anticipated licensing changes.**

"The strategy we employed was to discuss the initiatives of the grant together with the institution initiatives that revolved around the strategic planning process...to come and talk about the strengths, weaknesses, threats as they related to the themes of changemaking and other strategic planning themes.

Expand the Team

High-functioning teams recognize that skills in communication expertise are required for forward motion of their change efforts. Communication expertise includes finding dissemination outlets, defining metaphors, creating documentation, and crafting rhetorical analyses of audiences.

✔ **TIP: Create a strong partnership with existing marketing and communications staff, hire a consultant to provide guidance on messaging and branding, or formally incorporate a communications specialist on the team.**

"[We have] a communications specialist who is not an engineer but trained in communication and she is part of our department and sees what we do but can communicate that to those outside the department. Using individuals who specialize in communication...that is a plus."

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