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Leadership Scenarios

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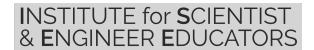
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Leadership Scenarios
Institute for Scientist and Engineer Educators (ISEE)

This paper was written and produced by the developers of the Professional Development Program (PDP) at the Institute for Scientist & Engineer Educators (ISEE) at University of California, Santa Cruz. The PDP was a flexible, multi-year program which trained participants to teach STEM effectively and inclusively at the post-secondary level. Participants were primarily graduate students and postdocs pursuing a broad range of science and engineering careers. Participants received training through two in-person multi-day workshops, worked on a team to collaboratively design an authentic, inclusive STEM learning experience (an "inquiry" lab), and then put their new teaching skills into practice in programs or courses, mostly at the college level. Throughout their experience, PDP participants used an array of online tools and received coaching and feedback from PDP instructors. The overall PDP experience was approximately 90 hours and was framed around three major themes: inquiry, assessment, and equity & inclusion. Leadership emerged as a fourth theme to support PDP teams, which were each led by a participant returning to the PDP for a second or third time, who gained training and a practical experience in team leadership. ISEE ran the PDP from 2001-2020, and there are more than 600 alumni.

CONTEXT FOR THIS PAPER WITHIN THE PDP

These scenarios were used in the PDP as part of Design Team Leader (DTL) preparation. DTLs were returning participants tasked with leading a small team (2-3 others) in designing and teaching an inquiry activity. The scenarios were used in a one hour workshop session which was one small part of the DTLs overall preparation. In the session, small groups of 6-8 participants read a scenario and then considered what might have led to the situation, how the DTL might have avoided it, and what the leader might do next. This resource includes the scenarios, as well as ideas for the workshop facilitator that were part of the instructor guide. Only the scenarios were given to the workshop participants.

Leadership Scenarios in the PDP

There are four scenarios, each followed by facilitator notes. The facilitator notes are framed around three elements of effective leadership, identified by Chemers (2001).

Scenario #1

The DTL and her team got off to a great start during the Inquiry Institute. The team chemistry was excellent and the new participants were excited about the content chosen by the DTL. Day 4 of the Inquiry Institute brought a lot of early design work that moved quite fast for the team. A few times, the new participants were on the verge of being overwhelmed, but the DTL was able to empathize with her teammates and assure them that they were doing well. This pattern continued in the Design Institute. The new participants would start to feel uncertain or overwhelmed by the process, but the DTL would keep spirits high and be able to point them to concrete progress they had made. Spirits were up as the team wrapped up the Design Institute.

As the team works independently in the weeks after the Design Institute, the teammates grow increasingly concerned and frustrated by their progress. While the DTL has kept a positive attitude and has assured the team that they are on track, the others feel as though they have a great deal left to do and many unanswered questions. At meetings, the DTL addresses her teammates' questions about details of the activity components they're working on, but they are still having a difficult time seeing how their work is contributing to the main goal, or where they are in the overall process. The DTL is noticing that meetings are becoming more and more tense. One teammate has stopped contributing very much at all, and the other has begun designing an introductory component to the activity on her own, and not sharing that work with the leader or the rest of the team.

Scenario #1 Facilitator Notes:

Overall pitfall: slow unveiling of the plan, or lack of transparency about goals and process

Image Management
  ● DTL needs to be clearer about expressing the overall purpose
  ● DTL's optimism is one element of expressing a compelling purpose, but not sufficient in this case
  ● Trust has eroded (one teammate is not sharing her work with others)
  ● DTL starts with what appears to be strong credibility, but as teammates continue questioning without getting full answers, their attitude shifts

Strategies from Effective Meetings Guide to help with image management
  ● Purpose of meeting (or of an assigned task) is stated
  ● Monitors progress toward goal and conveys to team

- Ideas and tasks are built on

Relationship Development
- Coaching and guidance is lacking - not enough info about the overall process provided by DTL
- Note that this shift appears to occur after the Design Institute, when structural support provided by PDP instructors goes away

Strategies from Effective Meetings Guide to help with relationship development
- Agenda developed with input from team
- Notice team dynamics and individual participation

Resource deployment
- DTL seems to have command of self-deployment; maintains optimism and tracks progress behind the scenes
- "Slow reveal" of task and overall progress can result in using teammates' resources inefficiently.
- By end of this scenario, teammates are starting to withhold their resources, as opposed to being engaged with the overall goal

Strategies from Effective Meetings Guide to help with resource deployment
- All tasks are recorded and assigned, and followed up on after the meeting
- When goal is ill-defined, gathers or summarizes information to orient group toward a productive path
- Balance use of participative and directive processes as needed to achieve goals
- Discussion is relevant

Scenario #2

The second day of the Design Institute kicks off with a long block of design time. Several ideas come up while working through a design tool, and the DTL allocates time to explore each one in a little more depth. As this piece of design time expires, they have a long list of pros and cons, but no consensus on the best option.

The next block of design time begins with a prompt to work on a different part of the activity. Once again, there are multiple ideas that seem promising. Two quickly emerge as the main contenders. One will require the team to find or write a software routine, but could be really exciting if this proves doable. After some more discussion of the software requirements, the design time block wraps up and the DTL tables a decision on which idea to move ahead with.

As the third block of design time starts, the DTL is wondering whether to go back and wrap up either of the two unresolved discussions from previous blocks. The teammates have begun

discussing possible materials to use for the Raising Questions phase, which the instructors indicated would be a good focus for this piece of design time. Every junction seems to bring forward a range of ideas, and both teammates seem engaged down to every last detail. But the DTL senses that they are steadily falling behind on the overall task.

Scenario #2 Facilitator Notes:

Overall pitfall: DTL wants consensus on everything, leading to slow decision-making

Resource deployment
- Balancing directive vs. participative strategies to use team's time most effectively
- Should be employing group processes to move team toward achieving goal

Strategies from Effective Meetings Guide to help with resource deployment
- Decisions are made and recorded
- Make final decisions after sufficient process

Image Management
- Chemers: sense of purpose, clearly convey goals and plan

Strategies from Effective Meetings Guide to help with image management
- Does the agenda orient attendees toward the decisions that will be made in the meeting?
- Summarize decisions and actions

Scenario #3

The DTL is leading a team that includes one participant who studies a different sub-discipline in the same broad field as the DTL and other teammate. At the Inquiry Institute, the participant is having a hard time finding places to contribute during design time. The DTL and other teammates are happy to do a little bit of teaching, and this seems to be working well. When design teams are asked to create artifacts representing understanding and not understanding of the content, the participant, who by now has a sufficient grasp of the content, doesn't feel like they can participate due to not having direct experience with how students usually learn this type of content in this particular context. The DTL tells the participant not to worry about it, and just to listen to the discussions.

At the Design Institute, the participant was having a difficult time brainstorming different investigation contexts for the content. This was despite the fact that they were an expert in a few of the data analyses techniques for some of those contexts, though neither the DTL nor the participant had made the connection due to trying to keep up with the other inquiry tasks the team was engaged in. By the end of the Design Institute, the participant was anxious and confused about many aspects of the design and process.

Scenario #3 Facilitator Notes:

Overall pitfall: Design Team Leader doesn't leverage teammate's strengths or expertise

Resource Deployment
- DTL is not leveraging all teammates effectively to use their valuable strengths as resources
- Not using the team member's knowledge and strengths well - not fully deploying team

Strategies from Effective Meetings Guide to help with resource deployment
- Balance directive and participative approaches (open ended tasks when someone is overwhelmed may not be a great idea!)
- If goal is ill-defined, gather and synthesize information to orient your team (Did DTL do enough to learn participant's strengths and how to orient them?)

Relationship Development
- May not be providing enough coaching and guidance
- Not really addressing the team members needs

Strategies from Effective Meetings Guide to help with relationship development
- Solicit ideas and perspectives from all members
- Learn about and use each team member's strengths

Scenario #4

A DTL is leading a team and is very busy preparing for a conference, so knows she is going to have to be really careful with her time. She puts together a solid content proposal and gets off to a good start at the Inquiry Institute. After the Inquiry Institute she gets really busy and doesn't do the assigned homework of creating practice proposal. At the Design Institute she feels a little behind when discussing the practice proposals, and lets a teammate lead the conversation about the STEM practice rubric, even as she is unsure about the direction the team went. Toward the end of the Design Institute one of the PDP instructors points out that the practice rubric the team created looks more like content. It sets the team back quite a bit, but the leader conveys optimism about getting back on track and is able to get the team's spirits up as they make revisions to the practice rubric.

After the Design Institute the DTL isn't able to carve out any time to do the first task that they had all agreed to. She quickly puts together a meeting agenda focused on logistics of the teaching venue and other details. The teammates arrive at the meeting having done the assignment and prepared to talk through their ideas, so there is now some frustration at what is clearly a delay. One teammate says that he did the task of reviewing the design, and found some online sources for ideas that might be helpful. The DTL suggests they talk about it at the next meeting. She reviews the online source 30 minutes before the meeting and sees that it is a traditional, highly directed lab unit.

At the meeting the teammate is pushing pretty hard for his idea, and says that the team just needs to get something in place. The DTL needs to decide in the moment whether to let their design go down a path that isn't aligned with the PDP task, or try to get her team to back up and design something more aligned with the PDP task.

Scenario #4 Facilitator Notes:

Overall pitfall: DTL is not well organized and/or is behind

Resource deployment:
- DTL is behind and/or not managing her time well, so is not able to apply her experience to guide the team (e.g. team goes off-track for STEM practices rubric)

Strategies from Effective Meetings Guide to help with resource deployment
- Leader needs use knowledge or expertise to guide team (can't because she isn't prepared)
- Leader (like others, but especially leader) needs to come to meetings prepared
- Team needs to make progress between meetings but due to leader not following through that is not happening
- Leader is unable to orient the team toward the task at hand at meetings because she is not prepared so the team is going off on different paths
- Leader does not follow up with the team member carrying out assigned task, and that is going down the cookbook lab pathway (she could have gotten in touch between meetings and headed off getting caught in the meeting having to make an in the moment decision)
- She doesn't seem to reflect after her experience with the practice proposal and see the ramifications of not being prepared, and not doing things between meetings, so things get worse

Relationship development:
- Leader is not providing enough coaching and guidance so teammates are going off track
  - During practice proposal she is too behind to do much
  - The online resources that the teammate brought forward could have been reviewed and used as an opportunity for coaching and guidance (maybe even one-on-one between meetings)

Strategies from Effective Meetings Guide to help with relationship development
- Attendees come to meetings prepared (leader is not)
- Leader uses own expertise or knowledge (of PDP task) to guide team and coach teammates

Image Management:
- Leader seems to have credibility (or an already highly motivated team), but is losing credibility.

- - Her trustworthiness is likely questioned at this point (trust that she will follow through and do things she has agreed to)
    - Her competency with PDP task is probably being questioned (team went down wrong path with practices and a course correction had to be made)
    - Team member pushing harder likely indicates is losing trust (so taking things into his own hands)

Strategies from Effective Meetings Guide to help with image management
- Come to meetings prepared
- Leader uses knowledge or expertise to guide team (can't because she isn't prepared)

A few ideas for wrapping up this scenario:
- Leader has gotten herself into a situation in which she is going to have to make a hard decision in the moment (there were opportunities to avoid that)--it is best to use strategies to avoid on-the-spot hard decisions
- In trying to reduce time spent on PDP the leader has probably created a situation in which it is now going to take more time than needed, for her and her teammates. Even a little time on tasks probably could have avoided this.

Ideas for answering: "what should DTL do now?":
- Be honest about not spending enough time
- As soon as possible demonstrate that she will follow through, and keep it up
- Spend time reviewing the online resources and find something that can be utilized
- One-on-one meetings with each teammate--let them vent, hear their concerns, and demonstrate that she has heard by taking action

Chemers, M., 2001. "Leadership Effectiveness: An Integrative Review" in Hogg, M. and Tindale, R. (Eds.) *Blackwell Handbook of Social Psychology: Root Processes*. Malden, Mass: Blackwell Publishers.