Engaging Students in Scientific Practices

Day 2: “Talk Moves”
Promoting Rich Discussion in the Classroom
Role of Student Discussion in MELs...

Importance of Discourse in Science....

- In order to process, make sense of, and learn from their ideas, observations, and experiences, students must talk about them....Talk forces students to think about and articulate their ideas. (Ready, Set, Science, p.88)
- Talk supports deeper reasoning and encourages students to reason with evidence (Talk Science Primer, p. 4)
- ....This kind of classroom discourse leads to deeper engagement in the content under discussion and surprisingly elaborated, subject matter–specific reasoning by students who might not normally be considered able students (Innovations in Educational Psychology, p. 174)
What strategies do you use?

How do you get THIS?

Instead of THIS?

Turn & Talk
Challenges in Facilitating Discourse

Changing long-standing discourse patterns in the classroom is not a simple undertaking. Students and teachers will require extensive modeling and ongoing support to become comfortable and competent with more effective talk formats. (Ready, Set, Science, p. 90)

Reasoned discourse is a habit, a way of life. It must be socialized, learned by living daily for many months and years in an environment that expects such behavior, supports it, and rewards it in overt and subtle ways. (Innovations in Educational Psychology, p. 172)
Elements of Academically Productive Talk

- Belief that students can do it
- Well established ground rules
- Clear academic purposes
- Understanding of the academic content
- Framing questions and follow up
- Appropriate talk format (participation structures)
- Use set of strategic “Talk Moves”

(Talk Science Primer, p. 2)
Strategies for Discussion... “Talk Moves”

HOW LEARNING HAPPENS
Encouraging Academic Conversations With Talk Moves

Video LINK
Strategies for Discussion... “Talk Moves”

Table Talk:

• Compare/contrast social and academic talk
• What did the teacher recognize as challenges to productive talk among students?
• Why is productive talk necessary in academics?
What are “Talk Moves?”

- Strategies that encourages participation, conversation, and collaboration
- Open ended discussion prompts
- Require active listening
- Create a classroom culture where students are regularly expected to speak, listen, and respond to one another

*Require direct instruction and MUST be modeled!*

<table>
<thead>
<tr>
<th>Talk Move</th>
<th>Example</th>
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<tbody>
<tr>
<td>Revoicing</td>
<td>“So let me see if I’ve got your thinking right. You’re saying ___________?” (with space for student to follow up)</td>
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<tr>
<td>Asking students to restate someone else’s reasoning</td>
<td>“Can you repeat what he just said in your own words?”</td>
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<tr>
<td>Asking students to apply their own reasoning to someone else’s reasoning</td>
<td>“Do you agree or disagree and why?”</td>
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<tr>
<td>Prompting students for further participation</td>
<td>“Would someone like to add on?”</td>
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<tr>
<td>Asking students to explicate their reasoning</td>
<td>“Why do you think that?” or “What evidence helped you arrive at that answer?” or “Say more about that.”</td>
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<tr>
<td>Using wait time</td>
<td>“Take your time... We’ll wait.”</td>
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*READY, SET, SCIENCE (P. 91)*
STRATEGIES

Share & Clarify

• Turn & talk….
• Can you say more about…? 
• What did you mean by….?
• Are you saying that….?
• Can you give an example….?

Rephrase & Repeat

• Can you repeat what was said in your own words?
• What do you think she/he meant by….?
• What does that mean?
• What is another way of saying that?

Time to Think

• That’s okay… take your time!
# STRATEGIES

<table>
<thead>
<tr>
<th>Agree/Disagree</th>
<th>Adding On</th>
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</thead>
<tbody>
<tr>
<td>• What do others think?</td>
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<tr>
<td>• Do you agree or disagree?</td>
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<tr>
<td>• Are you saying the same thing or something different?</td>
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<td>• How is your idea different?</td>
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<td>• Can you respond to that idea?</td>
<td></td>
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<tr>
<td>• Can you add to that idea?</td>
<td></td>
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<tr>
<td>• Can someone take that idea and add to it?</td>
<td></td>
</tr>
<tr>
<td>• How would you build on that idea?</td>
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</tbody>
</table>
STRATEGIES

**Evidence & Reasoning**
- Why do you think that?
- What’s your evidence?
- How did you arrive at that conclusion?
- How does the evidence relate to your claim?
- Say more about that…

**Challenge or Counter**
- Does it always work that way?
- What makes that a good example?
- How does that idea compare to his/her idea?
- What if it had been… instead?
Talk Moves
Strategies for facilitating discussion

Getting started with Talk Moves:

Contribute an Idea
I think that...
It seems to me that...
It says that...
I wonder if...
Some people think that...
I'm not sure that this is important, but...

Build on an Idea
I would add that...
I want to say more about...
In addition...
As well...
Building on what ___ just said, I would like to add...

Support an Idea
For example...
In the text, it says that...
In fact...
I wonder if...
Some people think that...
That's true because...
I would like to add...

Challenge an Idea
How does that relate to our discussion?
What makes that a good example?
Would we all agree with that?
Can you give me an example?
What do you mean by that?
However...

Going Deeper with Talk Moves:

Focus the Conversation
We're talking about...
This is similar to...
We're not talking about... but we are considering...
I think this means that...
I think it's important to include...
In other words...

Monitor Focus and Understanding
What do we know so far?
So you're saying...
I think what you mean is...
I'm a little confused about...
How can we bring this back to the question of...
Can you explain that to me?

Synthesize the Conversation
Let's review what we've said so far...
Would someone like to tell us the main points?
The big idea coming out of this conversation is...
The main point seems to be...
As a result of this discussion we should...
From all that we've said, we can conclude that...

Provide graphic organizers and checklists to students
Applying Talk Moves to MELs

Using the MEL Explanation Task you just completed...

- Share your responses in your group
- Apply “Talk Moves” strategies in discussion
- Track use of strategies using Discussion Checklist

Whole Group Discussion:

- What strategies were easiest? Most difficult to apply?
- Are some strategies more appropriate than others?
- How can you apply these strategies when using MELs?
Applying Talk Moves - applications

Day 1: Articles & Climate Change MEL
Day 2: Moon MEL

- Alone space: Refer to your workshop materials and identify where Talk Moves could be used
- Table Groups: Discuss your findings with your group
- What can we do to ensure we are using Talk Moves in our classroom discussions?
Questions?


**All three documents available free as PDFs online. Consider creating a PLC around discussions!**