Let’s Talk Science: Strategies to Encourage Student Voice in Your Classroom

Kristan Buckman & Pam O’Brien
Regional STEM Coaches

Engage 2021 – April 2021

Let us know where you are from!
Add your location to the chat box or use the annotate stamp feature.
Today's Mission

SHARE IDEAS AND REFLECT ON THE GOALS YOU HAVE FOR PROMOTING STUDENT VOICE.

Spectrum of Voice

Based on research from the Students at the Center @studentconnhub
By Eric Teshalis and Michael Nakulla

Adapted from original design and content by Bray and McCluskey
Graphics by Sylvia Duckworth @sylviaduckworth


day’s Mission

SHARE IDEAS AND REFLECT ON THE GOALS YOU HAVE FOR PROMOTING STUDENT VOICE.

Spectrum of Voice

Based on research from the Students at the Center @studentconnhub
By Eric Teshalis and Michael Nakulla

Adapted from original design and content by Bray and McCluskey
Graphics by Sylvia Duckworth @sylviaduckworth

By Barbara Bray @bbbray27
#rethink_learning
Inclusive Environment

1. Inclusive Environment
2. Shared Experience
3. Promoting Student Voice
Supporting an Inclusive Environment

Norms to promote equitable classroom talk
What does it look like when you are supporting equitable talk in your classroom?

Today’s Norms

Share Ideas
Listen to Ideas
Respectfully Respond to Others
Let's Talk Science: Strategies to Encourage Student Voice in Your Classroom

April 22, 2021

Kristan Buckman & Pam O'Brien, STEMscopes
NSTA Engage 2021
Why a shared experience?

- Focuses student thinking
- Provides a platform for discussion
- Supports risk taking
- Levels the playing field
- Student perspectives are resources for others
- Establishes relevancy + purpose

Promoting Student Voice

1. Inclusive environment
2. Shared experience
3. Promoting student voice
Process for Promoting Voice

**Purpose**
Generate student ideas by asking questions

**Visible Thinking**
Observe Discussion + Questions Generated

**Protocol**
Question Formulation Technique (QFT)

---

The QFT, on one slide...

1) Question Focus
   - Produce Your Questions
     - Follow the rules
     - Number your questions
   - Improve Your Questions
     - Categorize questions as Closed or Open-ended
     - Change questions from one type to another
   - Strategize
     - Prioritize your questions
     - Action plan or discuss next steps
     - Share
   - Reflect

---

1. Ask as many questions as you can
2. Do not stop to discuss, judge or answer
3. Record *exactly* as stated
4. Change statements into questions

Closed-Ended: Answered with “yes,” “no” or one word
Open-Ended: Require longer explanation

Source: The Right Question Institute
rightquestion.org
Step 1

**Question Focus**
Observe the video
Record observations

Source: The Right Question Institute
https://www.nasa.gov/feature/goddard/2020/drop-in-air-pollution-over-northeast

Step 2

**Produce Your Questions**
Follow the rules
Number your questions

1. Ask as many questions as you can
2. Do not stop to discuss, judge or answer
3. Record *exactly* as stated
4. Change statements into questions

Source: The Right Question Institute
rightquestion.org
Step 3

**Improve Your Questions**

Categorize questions as Closed or Open-ended
Change questions from one type to another

| Closed-Ended: Answered with “yes,” “no” or one word |
| Open-Ended: Require longer explanation |

Source: The Right Question Institute rightquestion.org

Step 4

**Strategize**

Prioritize your questions.
- Choose your most important question.
- Why did you choose this one as the most important?
Step 4

Strategize

Prioritize your questions.
- Choose your most important question.
- Why did you choose this one as the most important?

Action plan or discuss next steps.
- What are we / you going to do with these questions?

Share

Step 5

Reflect

- I have been heard and understood.
- I have heard and understood.
- I can live with it.
- I can (and will) publicly support it.

~Capturing Kids Hearts
Implementing the Process

**Purpose**

**Visible Thinking**

**Protocol**

---

**Spectrum of Voice**

- **Learners**
  - Offer opinions
  - Provide feedback
  - Complete surveys
  - Share and reflect how they learn best

- **Participation**
  - Attend meetings
  - Brainstorm ideas in planning sessions
  - Discuss topics in a group
  - Collect evidence of learning

- **Partnership**
  - Have a role in decision making
  - Learn and collaborate with others
  - Design and create together
  - Teach others

- **Consultation**
  - Seek authentic problems
  - Generate solutions
  - Advocate for change in and outside of school

- **Leadership**
  - Guide process and activities with group
  - Plan and make decisions with others
  - Accept responsibility for outcomes

Based on research from the Students at the Center @studentconrhub By Eric Teshalis and Michael Nakulla

By Barbara Bray @bbbay27 #rethink_learning

Adapted from original design and content by Bray and McCluskey

Graphics by Sylvia Duckworth @syliaduckworth

---

Kristan Buckman & Pam O'Brien, STEMscopes
NSTA Engage 2021
Supporting Resources

Thank you!

Please contact us with questions:

Pam O'Brien
pobrien@acceleratelearning.com

Kristan Buckman
kbuckman@acceleratelearning.com

STEMscopes
stemscopes.com

NSTA Engage 2021 – April 2021