

BSP Mentor Training Workshop

Fall 2015

INTENDED LENGTH: 2 HOURS

Mentors should bring laptops (if possible) to this training, and should come prepared to teach 2-3 pages of a past BSP lesson, which the coordinator should email out a few days before the workshop. The coordinator running the workshop should bring paper/writing utensils for the critique at the end and a laptop.

MOTIVATION

This training is meant to give new and experienced mentors alike a chance to learn about and practice some tried-and-true methods of great teaching, and to allow mentors to teach for the first time away from the pressure of a classroom. This training will ideally be run in small groups of both new and experienced mentors to give everyone in the group the opportunity to observe and learn from each other.

PART 1: COORDINATOR LECTURE

The coordinator running the workshop should aim to spend about 40 minutes (10 minutes per subsection) presenting the following content.

Tips for the coordinator: Make sure to follow the tips as you present them, as the best way to teach is by example!

Subsection 1: Creating a Safe, Fun Classroom Environment

- Responding to student participation effectively
 - Praise students for correct answers, but make sure that praise corresponds to difficulty of your question. Some teachers over-praise (“2+2 IS four! AMAZING job!”), and that cheapens their compliments. Make sure that students know when they did a good job.
 - If a student answers a question 99.999% incorrectly, find the .001% that they did do right and comment on that. The easiest way to discourage a student from participating is responding to a wrong answer with “nope, that’s not it.”
 - Example of effective question answering:
 - mentor: “What is the largest land mammal?”
 - student: “a hippo”
 - mentor: “Nice! Hippos are really large, and they’re definitely mammals, but there is actually an even LARGER land mammal. Can you imagine? What do you think could be even larger than a hippo?”
 - Example of ineffective question answering:
 - mentor: “What’s the capital of the US?”
 - student: “Argentina.”
 - mentor: “No, that’s not right. Can someone else help [student] out?”

- Connecting with students
 - Keep up with current goings-on that students might be interested in. Ask them their opinions on current popular music, TV shows, etc. Listen to what they talk about when they're by themselves, and ask them questions about the things you learn they're interested in.
 - Curse a little bit! Not really bad ones (acceptable: shit, crap, damn, equivalents), but you'll be surprised how much more likely high school students are to trust you if you say "shit" when you drop something. It humanizes you. That said, *never* use a curse word in reference to another person, especially not a student, another mentor, or one of their school teachers ("she's a bitch" is not ok, but "damn it, I dropped the eraser again" is great). Use your common sense with this one.

Subsection 2: Asking Effective Questions

- "Demanding" questions
 - Rather than asking "are there any questions?" try "ask me some questions." This subtle difference generally forces students to think critically about their understanding if they know that they'll be expected to ask questions.
- The word "can"
 - On a similar note, try not to qualify your questions. ("Can someone tell me...") Instead, ask questions directly ("What is..." "How do you..."). This makes your question a targeted... question, instead of a request. Students are much more likely to respond. This one takes a lot of practice to actually implement in your teaching, so it's good to be aware of it and to try to gradually improve over the semester.
- Targeting students for questions
 - Instead of posing questions to your whole classroom, ask specific students questions ("Henry, please tell me..." rather than "Does anyone know..."). I usually just go through all the rows of chairs targeting one student at a time so that I don't end up asking any particular student more questions than any other student.
 - This trick seems painfully obvious, but high school students are usually oblivious that you're just going around the room.
- Making your questions fair
 - Only ever ask questions that it is fair to expect your students to know or come up with the answer to. Being put on the spot sucks, and it's very embarrassing if you don't know the answer. Your students' comfort and continued participation are more important than the answer to any particular question.
 - If you want to gauge your students' prior knowledge about something, a blind poll (having them close their eyes and raise their hands) to ask whether they've heard of specific topics before is usually more effective than asking specific students about material they might be unfamiliar with.
 - That said, you are welcome to pose challenging questions! A fair question is not necessarily an easy question. However, make sure you pose the question to a student who either likely knows the answer (you'll learn who these students are very quickly during a lesson) or doesn't get embarrassed by answering something incorrectly. The students not answering the question will still hear it and think about it if it's not posed directly to them, and you'll make them feel more comfortable answering other questions later on by avoiding public humiliation.

- Your goal should be to have almost every question you pose be answered correctly. In general, it's not worth embarrassing students with difficult questions; we want to build their self-esteem in BSP! Obviously this won't happen 100% of the time, because your questions should force them to think about the material (which inevitably leads to confusion and error before understanding), but make sure to keep the goal of building student confidence with your questions foremost in your mind.

Subsection 3: Preparing the Lesson

- Know your stuff!
 - Make sure you understand the lesson inside and out. A great way to make sure you understand the lesson is by thinking of possible student questions and coming up with answers. I usually write down about 5-10 possible student questions on my lesson plan per lesson.
 - That said, it's ok not to know the answer to a question. Being honest with your students is *much* better than feeding them false information.
 - It's also ok to encourage students to whip out phones/laptops to find out the answer to a specific question you can't answer (by the time they get home, they'll have forgotten their question, or their interest will have waned, so telling them to "look it up by yourself later" isn't usually a good solution). This process illustrates the importance of constant learning and research in STEM. You're essentially showing them what you do in the event that you don't know something-- persevere, and figure it out!
- Practice, practice, practice
 - Talk through the lesson in your head. Practice teaching it in the mirror. Practice teaching it to your friends. Practice problematic sections of your lesson. Think of questions to ask ahead of time. PRACTICE. PRACTICE. PRACTICE.

Subsection 4: Being Engaging

- Get excited!
 - Let your enthusiasm show! Learn not to be embarrassed, and to laugh at yourself. Sing, dance, shout, run, *smile*. Show the students that you're having fun with the material, and that it sincerely interests you, and that energy will often be fed right back to you.
 - Students not responding to your display of passion and awake-ness? KEEP DOING IT. Radiate that energy into the room, and if you do it long enough, they will give some of it back to you.
 - Be yourself! If you're funny, be funny. If you're serious, be serious. If you're loud, be loud. etc. The students will find it easier to connect with someone who lets their real personality show
- Student interest
 - Gauge your students' interest in different lesson topics, and be willing to change or alter the lesson to focus on the parts that are most interesting to them. You *never* have to worry about time pressure in BSP. If you only get through a

quarter of the planned lesson, but your students had fun and learned something, you've done your job well

PART 2: MENTOR PRACTICE

The coordinator running the workshop should have given pairs of two mentors 2-3 pages of material from a past BSP lesson to prepare for the workshop. Each mentor pair should have prepared different material (either from different lessons or from different parts of the same lesson) in order to avoid boredom during the presentations. During this time, give mentors a chance to refine their preparation by practicing their delivery by themselves or in small groups.

Tips for the coordinator: *Encourage mentors to write questions for students and reminders/cues for themselves in their lesson plans, and to practice their delivery several times. In addition, encourage mentors to ask questions of the coordinators and/or each other. Bored mentors with extra time can help less experienced members of the group by listening to their practice runs and offering suggestions. Your job is to keep everyone working and engaged!*

PART 3: MENTOR PRESENTATIONS AND CRITIQUE

The coordinator running the workshop should give each mentor pair the opportunity to present. After each presentation, all mentors should anonymously write out a compliment and a suggestion for each presenter on slips of paper. The presenters can write suggestions for each other. Encourage mentors to be constructive, and warn them not to write anything they themselves wouldn't want to be told. After everyone is done, the coordinator should collect the suggestions and distribute them to their subjects.

Tips for the coordinator: *After all presentations and critiques are finished, be sure to thank all of the participants for their time and to express how much you've enjoyed working with them!*