Constructing Better Discussion

A More Effective Learning Environment and More Effective Learning

I hear and I forget.
I see and I remember.
I do and I understand.
--Chinese Proverb

Discussion is the “doing” of critical thinking.

At present, most college professors use discussion as a strategy for teaching. The premise of this handbook is based on the idea that most of us do it wrong, or don’t do it as effectively as we could. Discussion, if done correctly, can be the most powerful and effective tool for learning and understanding (which is different than memorizing or transferring knowledge). Discussion, when facilitated effectively, has the potential to develop more engaged and motivated learners, but when implemented incorrectly, it can lead to confusion, boredom, and frustration by your students.

All college professors value deeper learning. All college professors want the most learning for the most students possible. To these ends, using discussion as a tool in classrooms is imperative. All other things being equal, a classroom which effectively produces an active, democratic, and student-centered environment through discussion will produce more learning for more students than a classroom which doesn’t.

This handbook is an attempt to synthesize the latest understandings and information about effective discussions in the classroom with my own experiences and insights. The sources listed at the back are just a few of the many quality sources which are available to instructors and I would appreciate any feedback which might improve and develop this material.

Basic Assumptions:

A significant percentage of knowledge is constructed, not received. The human brain constructs learning and knowledge by networking together old and new experiences and understandings. More understanding and retention can occur when students are part of the construction, development, and direction of their learning.

More effective learning can happen when students are active, not passive.

Students in dialogue with other students are preferable to professor to student dialogue. Facilitation of learning is more effective than transfer of knowledge.

Process can be more important than product when trying to produce deeper learning

Critical Reminders:

You must commit to working at better discussion, trust the process, and be willing to make mistakes.

You must start at the beginning of the semester by establishing tone, expectations, and purpose, for an environment of learning/understanding to be achieved. Remember, you condition students and their expectations for behavior and achievement whether you intend to or not.

You must allow time for this to work. If you believe "covering material" is the highest priority, than this handbook is not for you.

You must use a variety of pedagogical methods to achieve the most learning for the most students. Discussion is just one method for teaching and learning. A course which only uses discussion is as limited and one-dimensional as a course which relies only on lecture. Dynamic variety is the key.

You must be able to give up control, at times, and trust that your students can and will construct learning, given the right guidance.

Purpose

Ask yourself, "Why do I use discussion in my classroom?"

Is the answer, "To get my students talking" or "To change things up"? Maybe your answer is "To test student knowledge and understanding from a recent lecture."

This handbook would like you to consider that discussion can actually be the tool which creates learning. The challenge is that effective learning from discussions does not happen by accident. It is the result of planning and consistent practice.

Students are conditioned by professors from the first day of the semester. If a professor talks too much during discussion, then most students are conditioned into a listening role. If a professor does not expect active participation, then most students will be passive. If a professor does not seem to value student response and insight, then most students will not value these either. If a professor does not have confidence in the discussion process, then most students will not either.

The reality is that students know when discussions are a waste of time and counter-productive. They see when discussions are just lectures disguised as discussions. If discussions become opportunities for professors to talk and provide knowledge, they can actually work against the learning process. Along the same vein, when discussions become interviews of professors (students ask questions of the professor and the professor answers) then the learning potential breaks down.

Good discussion is not talking time. Good discussion is not lecture. Good discussion is dialogue infused with questioning and exploring which ultimately constructs meaning and facilitates understanding for students. Good discussions are a place where students are encouraged to try and fail. This is the single biggest obstacle for professors when trying to develop better discussions because our approach to discussion isn't to allow trial and error. We do discussion by the filter process. We pick through the student answers for the right ones, emphasize these, add our expertise, and move on. A few students demonstrate their ability to articulate the "answer" for us, but the reality is that most students end up feeling that they somehow should have known the answer and have failed. The discussion is a test and they have failed.

Effective discussion is the laboratory of intellectual pursuits. Labs allow students hands on training where they learn to pose questions, test their ideas, sometimes fail, but most often understand at deeper levels. James Zull, in his book The Art of Changing the Brain, advocates for this kind of action learning. He believes ideas need action or they become inert and lost: "Language is the primary way we change our ideas into actions . . . When we test our ideas, we are changing the abstract into the concrete." Zull calls this a "clarifying process." The negotiation, trial and error of putting abstract ideas to concrete words is an "active testing in the most direct and concrete form possible" (Zull 208). Discussions in the classrooms can act as laboratories of thinking, learning, and deeper understanding.

Planning

Map out clearly for your students guidelines and expectations for their participation. Sometimes a handout or workshop at the beginning of the semester helps. The key, though, is to model and practice good listening and respectful dialogue for them to follow and understand. You are the guide, so guide them with action.

Keep course goals in mind when planning a discussion. What are the key accomplishments you want students to achieve? What are the core concepts they must understand or master? Is critical thinking something you want them to learn and demonstrate? Will this be connected to a writing assignment or some other homework?

How much time do you have? The answer to this will help decide how much you might be able to develop in a discussion.

Have a plan of where you might end up, but do not have a plan for how to get there. Allow student insight, comments, questions, etc. to dictate the path. Identify key questions for the reading, topic, or concept and make a list. Use this list to refer to when the discussion loses momentum or needs new direction.

Prepare a warm-up or reflective exercise. This is an excellent way to allow students some time to think and organize ideas before jumping in to the discussion. Sometimes a short, 5 minute writing prompt is good because you can call on shy students to read what they wrote. Having students dialogue briefly in pairs works well, too. An effective twist to this is after they dialogue in pairs, call on students to summarize a good idea they heard from their partner (emphasizes listening and paraphrasing skills).

It sometimes helps to have a list of students who haven't participated much, yet, who you can target and try to get more involved in discussions. If we don't plan and prepare for inclusion, then most of the time it won't happen.

Class size can matter, but it doesn't have to. If you have a class that is upwards of 50 students, then this can affect your time frame and goals for how much you want to do. But it does not have to stop you from using discussion. Strategies for creating effective discussions still work in larger classes. Stick to the strategies which you find in this handbook and you'll find that you can still create an environment of engaged and active learning.

Practice

Allow students to take responsibility for their learning. An effective teacher is a guide who shows up now and then to say good job, go this way, think about this, see how this relates to this, etc.

Set clear expectations and guidelines for your discussions. Active listening and respectful dialogue are a must. Expect and encourage participation. Insist on raising hands; however, tell students that raising hands isn't a guarantee that they will get to speak. Sometimes you will have to "look over" some in order to get more involvement.

Make your students work in discussions. A key mistake professors make is doing too much. This is a common mistake because it is the easiest to make. We are only human. We are trained to be experts in our fields, so often, we feel strongly that we must be active in providing our expertise, to provide answers (after all, this is what we get paid for). It also is a kind of ego trip for us. It feels good to talk and answer. However, this conditions students to be passive. They expect the professor to answer questions and provide insight. We must train ourselves to be less involved and more of facilitators.

Don't panic when there's silence. The incredible desire to fill silence with our own voices under the guise of "teaching" is difficult and omnipresent. Count to yourself. Recite a poem in your head. Find a strategy which will help foster patience and ease when there is silence.

Don't be seduced by noise. Not all talking is quality discussion.

We have a tendency to reward speed. This can actually reward students who do less thinking, rather than more. Don't call on "quick response" students all of the time. This can lead to "playing favorites", a certain discussion killer, and it can lead to missing out on quality insights and contributions from those students who need more time for things to connect together. Don't show impatience when there aren't quick answers to your questions.

Questioning Strategies

Beginning a discussion

Avoid starting a discussion with big, complex and layered questions. Use more simple questions first in order to build to the more complex and key questions.

Not Effective: What's this all about?

Why did the Viet Nam War end?

Why consider environmental realities when designing a building?

Effective: Is there a specific point or idea which confuses you?

Can someone identify an important moment from the second half of the Viet Nam War and explain why they think it's important?

What's one thing we should consider when designing a building?

Direct questions to individual students. Too often, general questions to the group allow more verbal or socially confident students to dictate and set the tone. If you start the discussion by calling on typically silent students, you'll find that these students often offer their own contributions later in the discussion without solicitation.

Best Practices:

Open-ended Questions

These are the most effective types of questions for building learning environments, but they take practice to develop. They often start with how or why and can bring a range of responses (usually multiple and even conflicting) which can then be used to build on. Avoid looking for the one preferred answer to these questions. You will quickly condition your students that there is a "right" answer that they must furnish or "guess" for you. This stifles critical thinking and turns question time into "regurgitate the right answer" time.

Examples: Why doesn't Hamlet act?

How did the Civil Rights movement in the United States gain momentum?

Create Scenarios

Scenarios are a kind of "What if" tool for promoting more critical and creative thinking. They can be created as a discussion starter, or based off of a student comment. When done right, they can be a very effective tool for getting students more engaged (by creating scenarios which draw from contemporary experience) and for creating ambiguity which leads to more substantive discussion. I have often found that using scenarios helps students who have come to some conclusions about the material rethink their position or at least consider the consequences and effects of their conclusions.

Examples:

Let's consider something for a minute. What if Hamlet is aware that Polonius and Claudius are eavesdropping? How does this change the way we interpret his actions toward Ophelia?

What if we make the argument that the assassination of MLK had a positive influence in developing much needed support for the civil rights movement from a larger audience? What might we look at for either trying to support this claim, or trying to refute it?

Let's assume that we all agree with the progression of evolution articulated by our text. What happens if a local construction site here in Moorpark uncovers a woolly mammoth that has different characteristics than expected, say femur bones twice the size of any previously recorded and facial characteristics more like rhinos than elephants? How might we accommodate this new find into the theory?

Suppose California creates a law which allows your employer to access your email, facebook, and twitter accounts during the time you are at work? This is created so that employers can monitor whether employees are working during the time they are getting paid. How would you respond?

What to Avoid:

Yes/No questions

If you must use Yes/No questions, be sure to follow up with questions about evidence, for clarity, for explanation.

Leading questions

Leading questions have assumptions and expectations inherent and obvious within their structure. They don't encourage active participation and critical thinking; rather they lead students to answers already expected by the professor. They suggest answers rather than seek them.

Examples: How much will the supply curve increase next quarter? (Instead of: What will the supply curve do next quarter?)

This is something positive, isn't it? (Instead of: Is this positive?)

Do you agree that Einstein was right? (Instead of: Is Einstein right?)

Can anyone tell me what the problem with X is? (Instead of: What do you think about X?)

Notice the difference: Is this the most reasonable interpretation? or What is the most reasonable interpretation?

Is this the only conclusion we can make? or What is the conclusion we can make?

Is this the main cause of the Viet Nam War? or What is the main cause of the VNW?

Rhetorical questions as veiled commentary

Examples: Doesn't Hamlet have a moral responsibility to act in his own best interest? (Instead of Does Hamlet have any moral responsibilities? If so, what might they be?)

Didn't the United States act inconsistently before they entered WWII?

The "Rapid fire/Shotgun" approach to questions

What's the problem with Hamlet? Why is he upset? What seems to be bothering him?

The question and quick self-answer technique

Is it possible for an integer to be positive or negative? (3 seconds later) Of course.

Response Strategies

Key reminders for a Democratic and Inclusive classroom:

Show appreciation and interest.
Respond with comments which build toward more discussion and more student interaction.
Actively and carefully listen and pay attention (keep notes if you have to).

Environment

It is vital to create a safe and supportive environment. This is your responsibility and it's your choice. Lay down ground rules about respectful listening, raising hands, addressing ideas (not people). You must also decide standards of decorum. Are swear words allowed? If so, under what circumstances, etc. Whatever you select, be consistent and hold yourself to the same standards. Remember, you are teaching students to be active and respectful learners by your modeling, whether you are consciously trying to or not.

Regulating your own responses, posture, attitude

One of the most influential aspects for creating a safe and productive learning environment is the professor's own tone, language, and demeanor. It's important to move out from behind the desk, table or podium. Physical movement and posture communicate energy and enthusiasm. Students tend to think that those professors who use the classroom space in dynamic ways care more about the subject and their learning. Another key to establishing inclusion and a positive learning environment is eye contact. Making clear eye contact with a student who is speaking is important for building support (it shows real concern and listening) but even more important is "scanning" a room and making eye contact with all students in order to set a tone that this is a collaborative discussion where everyone is supposed to be involved.

Show support/praise for particularly insightful or quality comments, but don't criticize those that aren't. Instead, ask questions for further clarification or questions which help the student and class toward stronger answers.

Example: I think you're close, but not quite there, yet. Think about . . .

Avoid making things personal. You shouldn't be soft and accepting of everything, but you don't have to put down and demean.

Avoid interrupting students.

Summarize comments in your own words to show you are trying to understand and follow the discussion. This can help clarify for you and other students

The following is a list of responses you can use in specific ways to help improve discussions in your classroom. It is helpful to have a "rolodex" of responses you can rely on and draw from in any situation which arises. It adds to your confidence and helps facilitate the process. Modify these and build on them for your own uses.

Setting and maintaining a respectful environment

Please remember that we all need to respect and listen to each response if we are to be respected ourselves.

Let's save the curse words for outside this room. This is a classroom and it needs to be respected.

Remember, if you want to be taken seriously, you have to find more effective language than four letter words. Your credibility is at stake.

That comment was offensive and disrespectful. Your frustration cannot be an excuse for being disrespectful to your peers. If you want to be a part of this discussion, you must respect all participants.

Please remember, we're here to find better understanding, not to see who wins or who's right/wrong.

Managing/Facilitating the content and focus

It sounds like you're very passionate about . . . and if we had the time it would be an interesting discussion to look into further, but for our purposes in this discussion, let's get back to the question at hand.

I'm not sure I'm following you. Could you elaborate some more and connect it to the topic a little more clearly?

Can you tell us how the problem at your work connects to the reading?

Yes, that is one way to look at it, but what about this part of the reading which seems to contradict what you just said?

I feel like maybe we're getting a bit repetitive here, let's move this discussion forward a little and talk address this particular part of the reading/concept.

Achieving and managing equal participation

Bill, you've said a lot of good things so far, but I want to get some more voices and perspectives into the conversation. (Call on someone else).

Does someone want to help Bill with this?

Michelle, what do you think about what Bill has said? Do you agree?

I know you really want to say some more about this, but I haven't heard from . . . yet.

Bill, I haven't called on you in a long time. What do you think about . . .

Trying to achieve higher quality responses

Ask students to provide support from the reading/lecture for their idea.

How does this relate back to the lecture?

Does this connect to any of our recent readings?

What part of the reading leads you to you think this?

Play devil's advocate.

If I'm Socrates, I'm not sure I agree with you. I would say . . .

But what if I'm from the other end of the spectrum and I think that Marijuana is a gateway drug? How do you respond?

I'm a skeptic and I don't follow your assertion that everything is relative. What could you say that might convince me otherwise?

Ask students to consider possibilities (See "Scenarios" section above for more details).

If we accept your premise, then could this happen?

Do you accept that these are possible consequences?

Do you still want to stick with your premise if these are possible consequences?

Bringing your discussion to a close

A great strategy for ending discussions is when the professor highlights key points, takes a key idea and applies it to something outside of the classroom, or when the professor can synthesize and bring together several points that were explored in order to create a larger, global perspective.

Have students write after the discussion. Use these as not only opportunities for students to articulate their understandings and confusions, but as a tool for evaluating student learning. You can have them turn these in at the end of the class, or keep them in an ongoing portfolio.

Have students dialogue in pairs for five minutes about what they learned or what they are still confused about.

Do you know you are succeeding or failing?

Pay attention to your discussions.

How many students participate? Really pay attention and be honest. Our tendency toward wishful thinking often clouds this evaluation. 6-8 students can often feel like 10-12.

Are some students dominating the conversation?

Are student comments too far off topic? This is a gray area with no clear distinction. Some is good, but there is a point where too much is too much.

Is there too much repetition?

A Reminder Checklist

Brookefield and Preskill in Discussion as a way of Teaching have a valuable checklist for teachers to evaluate the balance between being involved too much and not being involved enough:

Is my participation preventing students who want to speak from making a contribution? Have I interrupted students in mid-sentence?

Have I made more comments than all of the other students combined? Do I respond to every student who speaks? Do students pause before responding to each other because they expect me to make a comment after every student speaks?

Am I sticking to my preset agenda for discussion despite alternative suggestions and even resistance from my students?

Are my teaching practices in discussion in contradiction with my goals for my class?

Am I discouraging student participation because I think the students lack knowledge or experience?

Is the discussion faltering because of my own lack of participation?

Does the discussion lack focus because I have contributed so little?

Have I neglected to interject any comments that help students see how their ideas are related?

In general, what am I doing to build continuity and a sense of collaborative engagement?

What am I doing to assess and evaluate the degree to which my voice is in balance in discussion?

Purpose

- Meaningful learning; sustained learning
- Inclusion
- More engaged students; More effective evaluation of progress

Planning

Practice

Do's/Don'ts

We reward speed – perhaps we reward those who think the least – Zull

Evidence shows that terminology can be understood and remembered if the terms are introduced after understanding how the system or concepts work.
"This seems to be how we learn. We continually add new experiences to our old ones. We blend the old and the new, and in blending we create whole new networks. We construct our understanding using part of what we already know and part of what is new.

So we find a new challenge for teachers. Part of the teacher's job is to find ways to combine the established networks, or parts of them, with new networks—to build new concepts using a mix of the old and the new."
Whether it's language or numbers/equations, the brain needs to create images for understanding these things. We can memorize terminology and memorize how to solve equations, but unless our brains are allowed to formulate images and connections/networks, then we won't understand at deeper levels and won't be able to apply, use, evaluate, etc.

With almost everything, "the learner is in control" of her learning.

The biology of our brain shows that deeper learning happens when it is guided, relevant, and emotionally important. The evidence is not anecdotal, but physiological.