Tips for students leading a journal club discussion

Leading a good discussion is not as easy as it looks. It requires quite a bit of planning and an understanding of group dynamics. Here are some tips to help you with the challenge.

Prepare in advance. If you will be leading a discussion along with one or more students, you should get together with the other students ahead of time so that you can agree on the learning goals of the discussion and decide which management strategies will be helpful.

- a) *Identify learning goals*. If you are a leader of a class discussion, you need to decide on exactly what the class should learn as a result of participating in the discussion. Having specific learning goals is what distinguishes an academic class discussion from a 'bull session' back in the dorm. Here are just a few of the possible learning objectives for a discussion of a journal article about evolutionary biology:
 - Students should be able to identify the area of evolutionary research the article addresses.
 - Students should be able to explain the evolutionary idea being tested in the study and how the study tests this idea.
 - Students should be able to explain how the article relates to evolution topics addressed in lecture.
 - Students should be able to explain the significance of the species chosen for use in the study.
 - Students should be able to identify and expand upon the most significant conclusions presented in the article.

Perhaps most importantly, students should be able to identify the broad goals of the research described in the article. They should be able to do so without regard to the specific species investigated, which forces students to think in broader terms.

Of course, you also need to make sure that *you* fully understand all your learning goals! Be sure to discuss this with the other leaders of the discussion to make sure you are all on the same page.

- b) *Develop questions*. It is a good idea to have a list of initiating and follow-up questions prepared that might be used during the discussion. These should be designed to promote discussion that will address your learning goals. Some can be more speculative to elicit opinions. For example:
 - Are all of the results obtained consistent with the hypothesis being tested? Are there any major outliers in the data?
 - What sort of evidence would make the authors' case stronger? What sort of evidence would argue against the authors?
 - What case would a skeptical scientist make against the authors' interpretation of their results?
 - Which conclusions are directly drawn from the analysis of the results, and which are more speculative?
 - Do all of the conclusions drawn make sense based on the results?
 - Has this article supported the generally accepted thinking on this topic or has it refuted it?
 - How has this article furthered evolutionary thinking?"

As a discussion leader, make sure that *you* have thought about possible answers to each question you pose to the class!

- c) *Share responsibilities*. By getting together with the other discussion leaders, you will also be able to decide how you will share responsibility during the discussion. For example, you might decide that each of you will assume primary responsibility for a specific portion of the discussion.
- d) *Ground rules*. You should also discuss the ground rules for the discussion. Will you require students to raise their hands and be recognized to speak or will you opt for free-form? Both have pluses and minuses. The formal option provides the leader greater control over the discussion, often making it easier to ensure all students participate. The free-form option sometimes leads to more lively discussion but can often move off-topic quickly—and you will need to take responsibility for redirecting the discussion back to key issues.
- e) *Task management.* You will also need to decide how you will manage the discussion. You might consider assigning groups of students to focus on particular parts of the article (i.e., abstract and introduction, methodology, analysis and conclusions)—though of course, each student will need to read the entire article as well. This forces the students to take greater ownership of the article.

Initiate the discussion. The primary mistake made by novice discussion leaders is that they talk too much. Remember, your job is not to make an oral presentation but to promote discussion by others. Generally, you will initiate discussion by asking a question or by making a statement and asking for a response. If you are lucky, someone in the class will respond promptly to your questions, but sometimes your question will be met with a long and uncomfortable silence. In fact, this is usually what happens at the outset of the discussion when participants do not yet feel at ease. What you do in response to this silence is crucial. Above all, do not answer your own question or begin a presentation of the material. This simply informs the class that they need not respond since you will do that for them. Try re-wording the question, and wait them out! They are uncomfortable too, and eventually someone will say something to start the discussion.

Manage the discussion. Once the discussion gets going, you are faced with the delicate but extremely important task of providing periodic direction to the discussion while still giving it considerable autonomy. Discussions rapidly take on a life of their own, and it is important that you give the discussion freedom to grow and evolve in its own way. Students will rapidly lose interest in participating if it becomes clear that only certain types of responses are acceptable. At the same time, you need to keep an eye on your learning objectives and prevent the discussion from veering too far away from the subject at hand. Remember, this is an academic class discussion and not a free-form chat. If the discussion has strayed too far afield or if you need to move on due to time constraints, simply interrupt the discussion, acknowledge the current focus of the discussion, and announce that you want to bring the focus back to the original topic or that you need to take up the next issue.

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It is also very important to make sure that all participants are involved and contributing. You should pay particular attention to make sure that all students have the opportunity to share if they desire. Make mental notes when a student has made an attempt to contribute but may have lost out on that opportunity because a classmate interrupted or someone else spoke up sooner. It is important to offer this student a chance to add their comments to the discussion.

Sometimes, the discussion may appear to be progressing well, when in fact, only one or a few students are dominating the discussion. If you have established the hand-raising/recognition requirement, the problem can be moderated in this manner. If not, try to include others by asking something like "Does anyone else have a view/comment that they would like to share?" or by calling on specific students to respond. Pay particular attention to soliciting the input of students who may have tried to contribute to the discussion earlier, but were not aggressive enough to make themselves heard.

End the discussion. At the end of the discussion, take a minute or two to make a few summary comments regarding the discussion. This is also an excellent time to reemphasize certain points associated with the discussion's learning goals.