UNIVERSITY OF CALGARY
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Enhancing Critical Thinking through Class Discussion:
A GUIDE FOR USING DISCUSSION-BASED PEDAGOGY

William Sibold
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Contributors:
Dr. Robin Mueller
Dr. Candace Lind
Dr. Graham McCaffrey
Dr. Carol Ewashen

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Introduction

I developed this guide for using discussion-based pedagogies as part of a capstone project within the Masters of Nursing program at the University of Calgary. The focus of my program has been to develop pragmatic teaching tools that can be used in the context of post-secondary nursing education. Consequently, the content of this guide was originally situated within the discipline of nursing; however, it has been re-formatted to support a broader audience within higher education. **Discussion-based pedagogies are applicable across disciplines, so this guide may be used by any instructor who is interested in enhancing student dialogue in their face-to-face classroom environments.**

Discussion-based pedagogies are teaching approaches in which various forms of dialogue are used to achieve particular learning outcomes (Jahng, 2012; Prince, 2004). Using discussion-based pedagogies assists in the development of critical thinking skills, which are often emphasized as important outcomes in higher education programs (Pederson, 1992). This approach to teaching also supports development of a broad range of additional skills including communication, collaboration, and perspective taking (Sibold, 2016).

Through personal experience, literature review, and professional consultation I have developed this guide, which focuses on how to use discussion-based learning strategies to target critical thinking skill development amongst students. I explore three specific discussion-based learning methods: structured controversy, deliberative discussion, and problem-based discussion, all of which are known to support the development of critical thinking capacity (Goodin & Stein, 2008; Johnson & Mighten, 2005; Pederson, 1992). These specific strategies were selected because of their alignment with critical pedagogy, which is the philosophical foundation that guided the development of this project. Detailed frameworks for using discussion-based teaching strategies are provided within this guide, along with evidence-based recommendations for instructional practice.

Discussion-Based Learning: Research and Literature

Discussion-based learning is conceptualized and described in many ways; for the purposes of this guide we will consider discussion-based approaches to teaching and learning as those that rely predominantly on dialogue and discourse rather than didactic transmission of information (Burbules & Bruce, 2011). Discussion-based pedagogies exist in multiple forms, including online discussion boards (Bristol & Kyarsgaard, 2012), mock trials (Centrella-Nigro & Flynn, 2012), problem based discussions, debate (Bradshaw, 2011; Darby, 2007; Garrett, Schoener, & Hood, 1996), structured controversy (Bull, 2007; Steiner, Brzuzy, Gerdes, & Hurdle, 2003; Johnson & Johnson, 1993), deliberative discussions (Goodin, 2005; Goodin & Stein, 2008), book clubs, and others. The use of discussion-based pedagogy has many potential advantages in terms of resulting learning outcomes for students:

- Development of evidence based critical thinking skills (Bradshaw, 2011; Bull, 2007; Chiang et al., 2013; Fung & Howe, 2014; Garrett, Schoener, & Hood, 1996);
- Growth in problem solving and judgement ability;
- Development of group process competencies (Chiang et al., 2013);
- Enhanced professional communication skills (Bradshaw, 2011; Chiang et al., 2013; Gill, Griffin, & Launer, 2013);
- Increased understanding of diversity and diverse perspectives (Steiner et al., 2003);
- Development of learners' autonomy and responsibility (Darby, 2007);
- Increased student understanding of course content;

- Better course assessment outcomes (grades, passing rate, etc.) (Costa, van Rensburg, & Rushton, 2007; Johnson & Mighten, 2005); and
- Increased student satisfaction with the course (Costa, van Rensburg, & Rushton, 2007).

There are potential disadvantages to using discussion-based pedagogies, including inadequate coverage of course content due to lack of effective facilitation, unforeseen challenges in the facilitation of discussion pedagogies, difficulty associated with discussion-based pedagogies for students who have a fear of public speaking, and the possibility that discussion pedagogies can lead to incorrect understandings if not properly facilitated. However, it is important to note that no peer-reviewed publication suggests that these should prohibit the use of discussion-based approaches. Furthermore, the disadvantages of discussion-based pedagogies outlined in the literature can be mitigated by effective facilitation. The tools provided as part of this guide are designed to support the implementation of discussion-based pedagogies in a way that will deepen and extend student learning.

The literature provides a supportive stance towards the development and integration of discussion-based pedagogies in higher education. This stance tends to be well-supported through theoretical knowledge, a diverse collection of small studies, student and instructor feedback, and expert instructor opinion. However, while the use of discussion-based pedagogy has been encouraged within research literature for decades (Backer, 2015), there are relatively few pragmatic resources for higher education instructors to apply to this end. This guide will focus on leveraging the advantages of discussion-based pedagogies, while also attempting to mitigate the disadvantages through best practice recommendations.

Critical Pedagogy and Critical Thinking

The overarching philosophical stance that influenced this guide is *critical pedagogy*. This theoretical approach advocates for student empowerment, social action, and critical thinking (Ironside, 2001). Critical pedagogy "challenges practices of power and ideology embedded in the production and dissemination of knowledge" (Ironside, 2001, p. 77). Through critically-oriented pedagogical approaches, students are encouraged to use logic to come to their own conclusions and opinions (Ironside 2001). The influence of the ruling class (those who hold the greater balance of power) is questioned, as are any inherent societal biases and privileges (Burbules & Burk, 1999; Ironside, 2001). Essentially, students are empowered to analyze content in an endeavor to answer the question "who does this benefit?" (Burbules & Burk, 1999). A participatory democracy is encouraged, with an end goal of promoting social action (Burbules & Burk, 1999). The pedagogical tools described in this guide support the creation of participatory democracies within classroom settings, where all voices are heard and considered. In implementing these tools, facilitators aim to foster environments conducive to participatory democracies.

To activate the concept of critical pedagogy (and a participatory democracy), the pedagogical strategies offered in this guide support the development of critical thought processes. While loosely related, there are differences between the concepts of critical thinking and critical pedagogy (Burbules & Burk, 1999). Since critical thinking is conceptualized in various ways, it is important to note how it is defined within this guidebook. The Foundation for Critical Thinking defines the concept as follows:

Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered

from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness (Foundation for Critical Thinking, n.d., para. 1).

This definition is accurate in the context of this guide; however certain aspects of this definition ought to be highlighted. First, critical thinking is an important thought process that enables the existence of critical pedagogies. While critical pedagogy recognizes different methods of knowledge analysis, this guide focuses on critical thinking due to its emphasis in many higher learning programs (Burbules & Burk, 1999). The critical thought process is learned, socialized, and refined throughout education programs (Burbules & Burk, 1999). The discussion templates in this guide will come to life in the way that students use the critical thinking process to determine their position or stance on the topic(s) of the discussion.

When using the strategies outlined in this guide, discussion topics that include emerging foci of research and/or controversy are encouraged. Students may determine that their evidence informed stance on a topic (determined by way of critical thinking) is not reflective of present reality. It is then that the spirit of critical pedagogy becomes apparent. Students are encouraged to critically examine how power relationships influence the discussion and ability to implement interventions related to emerging issues. The discussion templates in this guidebook are designed to provide students with varied resources to competently assess why the disconnect between theory and reality exists. The inherent power and political relationships within our society will be challenged by students, which may highlight opportunities for advocacy and social action. The intent of this guide is not to encourage students to rebel against the status quo or existing discourses; rather it is to support critical examination and understanding of why current processes exist, and why new practices may or may not be adopted. The goal is to provide students with a real world experience of the complex debates and challenges that exist within society.

Group Facilitation of Discussion-Based Pedagogies: Instructional Practice Considerations

Group Composition and Diversity

The composition of group members is known to influence overall cognitive complexity within groups (Curseu & Plutt, 2013). Essentially, the more diverse a group is, the more ideas and perspectives are generated within the group. It is recommended that facilitators manually create groups with multiple aspects of diversity in mind (gender, nationality, teamwork experience, etc.) rather than through random selection or allowing students to choose their own groups (Curseu & Plutt, 2013). However, it is important to remember that the facilitator holds an inherent position of power in relation to the students, and this should be considered when forming groups (Burbules & Burk, 1999; Ironside, 2001). The facilitator may wish to disclose how the group membership was selected in the interest of transparency.

"Neutral" Facilitation: Neutrality Defined

Group facilitators are asked to demonstrate "neutrality" with respect to the topics of discussion in order to promote free and open dialogue among students. The freedom to discuss issues without restriction was the original intention of the academic "safe space" (Gayle, Cortez, & Preiss, 2013). While critical pedagogy is rooted in citizen advocacy, this tools in this guide are designed to empower students to be advocates rather than the group facilitator (Burbules & Burk,

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1999). Furthermore, critical pedagogy recognizes that true neutrality is simply not possible. The facilitator inherently holds a position of power, and approaches his or her role with a wealth of experience and knowledge (Burbules & Burk, 1999; Ironside, 2001). Neutrality is thus approached as a conscious awareness of how the facilitator's bias, privileges, and assumptions influence the student discussion. Generally, facilitators are asked to refrain from influencing the discussion as much as possible. The endeavor to be a "neutral" facilitator is simply an endeavor to distance oneself from the greater debate through self-awareness.

In some situations, the group facilitator may have expert or specialized knowledge on the topic of discussion. This knowledge may be of benefit to the group discussion or may even be requested by a group participant during the discussion. Facilitators may also need to intervene in cases where incorrect facts or information are being shared. In these cases, the facilitator should be aware of their personal bias and influence on the group because he/she occupies a position of power over the students, especially when evaluating the discussion (Burbules & Burk, 1999; Schuman, 1996).

Mindful reflection can help a facilitator to determine how to best address the issues of bias and influence in a manner that best works for them. For some, this may be as simple as declaring the presence of bias or privilege prior to speaking (Schuman, 1996). An example of how this intervention may unfold is provided below.

> You are a nursing instructor facilitating a structured controversy group discussion regarding a recent proposal to open a supervised drug injection facility in the city. You are asked by a student whether, in your professional capacity, you believe that the development is a good idea for the city.

> You are personally opposed to this proposed development as you own a condominium nearby, which you believe will decline in property value if the development is approved. However, you have been familiar with the concept of supervised injection sites for several years. From a professional nursing perspective, you support their presence in your city for the purposes of harm reduction.

> You choose to declare your personal bias prior to responding to the question. You choose to share your rationale for same, which you feel is relevant to the understanding of the greater public debate on the issue. You then share your professional opinion, based on your professional nursing experience and the literature.

Academic "Safe Spaces" & Controversial Ideas

The goal of an academic safe space is to provide an "inclusive and effective learning environment in which opportunities for complex cognitive, intrapersonal, and interpersonal development exists for all students" (Baxter Magdola, 2000, p. 94). The academic safe space endeavors to allow all students to openly discuss ideas and perspectives without fear of discrimination or disrespect. An academic safe space can be achieved by creating and communicating clear working expectations and validating the very normal discomfort associated with discussing difficult subject matter (Gayle, Cortez, & Preiss, 2013).

The academic safe space is frequently misunderstood to be a classroom without conflict. "The absence of conflict in a classroom may mistakenly be viewed as a safe classroom when in fact its absence may only further ignorance and stifle ideas and critical thinking" (Gayle, Cortez, & Preiss, 2013, p. 6). An academic safe space does not require or support the censoring of ideas and

perspectives that may be controversial or uncomfortable to discuss. This is especially true when the ideas and perspectives challenge dominant discourse (Gayle, Cortez, & Preiss, 2013).

The group facilitator may wish to take some time to discuss this concept prior to facilitating the discussion groups, or as required. It is the role of the facilitator to provide an academic safe space, and to ensure that its definition is clear and concise. The facilitator is also in a unique position to actively support students in working through and managing any discomfort or uneasiness that may arise with the discussion of controversial subject matter (Gayle, Cortez, & Preiss, 2013).

Evaluation

There are many ways to assess the student learning that occurs as a result of participating in discussion-based pedagogies; specific decisions about assessment are best determined based on disciplinary context, and should be informed by the program, department, faculty, or instructor as required/ appropriate. It is important to consider, though, that the evaluation criteria should be clearly defined within the "objectives" and "anticipated learning outcomes" section of the discussion outlines (as demonstrated in this guide). Objectives and anticipated learning outcomes should be written in a concrete and clear manner so that they can be explicitly connected to the instructor's method of assessing student learning. The discussion outlines are to be distributed to students prior to the discussion to allow for adequate preparation and participation. As such, the evaluation criteria could also be presented to students prior to the discussion.

Some example assessment rubrics that you may want to consider and/or adapt as part of evaluating student learning and participation in discussion-based pedagogies are provided in appendix 'A'.

Defining "Evidence"

Within this guide, multiple ways of knowing are encouraged. Carper (1978) theorized four different patterns of knowing (empirical, personal, ethical, and aesthetic). While originally specific to nursing, Carper's (1978) theory is broadly applicable and challenges over-emphasis on empirical knowledge within academia. This guide encourages the exploration and application of all forms of evidence. It is recognized that certain courses or programs may place emphasis on one pattern of knowing over others. In these cases, the facilitator is encouraged to recognize the multiple forms of knowing to the greatest extent possible within the mandate of their program/ course.

Within the facilitator templates provided as part of this guide, the anticipated learning outcomes do not define or limit "evidence" to one format (such as published empirical studies). As such, the facilitator should not consider a published study to be "better" evidence than experiential evidence (such as a practicum experience). However, if the course focuses on gathering academic sources (such as a quantitative research course) the instructor may wish to word the anticipated learning outcomes in a manner which prioritizes research evidence above other forms of evidence. For example, the learning outcome "Students locate and apply evidence to justify statements" is quite broad and encompasses multiple forms of evidence. A more specific working for a course emphasizing empirical sources may be: "Students locate appropriate research studies as evidence and apply this evidence to justify their statements."

Handling Potential Issues

Issues may emerge in the implementation of discussion-based pedagogies that need to be addressed by the facilitator.

Issue: Students are sharing information that is factually inaccurate

It is important to understand what kind of information is considered "factually inaccurate" within the context of this guide. These discussion formats aim to explore multiple perspectives, from multiple disciplines and backgrounds. As such, "factually incorrect" is defined quite concretely. For example, if a student incorrectly labels Estonia as a province in Canada when it is known to be a country in Eastern Europe it is the role of the facilitator to ensure that concrete facts and assumptions are well defined. Failure to intervene could result in improper understanding of the concept (Richards & Adler, 2014).

Intervention to correct misinformation can occur in several ways. It can be done in a subtle manner, such as posing a clarifying question or prompting another student to share their perspective. This situation could also be rectified by direct intervention, in which case the facilitator will interrupt the discussion to share the correct facts. It is important to remember that corrections should only be made in cases where the information is genuinely incorrect, rather than simply disputed or interpretive information (Richards & Adler, 2014; Johnson & Johnson, 1993).

Issue: Students who fear speaking in class

The facilitator is advised to consult with their department or faculty lead on how to best manage students' fear of speaking within their program of study. This recommendation is made as expectations may vary between programs or departments. In some cases, public speaking may be an expectation of the course or program. This would warrant a different approach than discussions taking place in a course where public speaking is not a priority course objective. You may also wish to explore options through Student Accessibility Services in situations where a disability warranting accommodation is present.

There are also several approaches to organizing the implementation of discussion-based strategies that can help manage student anxiety about speaking publicly. For example, an instructor could begin by offering the opportunity for students to engage in small group discussions rather than with the whole class. A scaffolded approach could involve designing several discussions, staged iteratively, that allow students to "work up" to speaking in front of a large group; this approach might start with paired conversations and progress incrementally towards speaking in front of larger audiences as a way to build confidence and self-efficacy. It is also helpful to consistently provide students "thinking time" before they are required to speak in front of a group so that they feel well-prepared to do so.

Issue: English as an Additional Language

It is possible that students learning English as an additional language may struggle with public speaking in English-speaking classrooms. In these cases, the instructor may wish to consider how this experience might affect the student's willingness or ability to be an active participant in the discussion. Within the templates in this guide, discussion outcomes are more focused on perspective taking and critical thinking skill development (rather than expressive language skill). Facilitators are reminded that the objectives and anticipated learning outcomes defined prior to the start of the discussion also determine how the discussion is evaluated. Clear communication of expectations and evaluation criteria is recommended in order to dispel any misunderstanding about the ways in which a student's facility with English might impact the evaluation of their participation.

Issue: Students who dominate the discussion

The discussion templates within this guide prompt facilitators to develop a list of working agreements/ground rules that will be communicated to the students prior to starting the discussion.

While the facilitator would produce their own list of ground rules, facilitators should promote the expression of as many perspectives as possible. One such ground rule may be that students raise their hands to indicate a desire to speak; as such, the facilitator will have the opportunity to assign speaking time to students who have not yet had an opportunity to speak. It is recommended that the facilitator remind students that a goal of these discussions is to gather as many perspectives as possible prior to assigning speaking time in a manner that prioritizes students who have not yet spoken. This is to avoid any misperceptions regarding the intentions of the facilitator in assigning speaking time, or not to a student(s).

Issue: Lack of participation

Instructors will create a list of revitalizing questions and thought provoking examples that can be used to stimulate conversation should a lack of participation, or a lull in the conversation, occur. The generic templates that are provided prompt facilitators to prepare this in advance of the discussion. It is also important to acknowledge that the research evidence on active learning and discussion-based pedagogy suggests that, by in large, students are willing to participate when they are asked (Michael, 2007). The learning gains achieved through active learning strategies such as discussion-based pedagogiesj far outweigh the challenges associated with any possibility of skepticism or reduced student participation (Cavanagh, 2011).

Discussion-based Learning Method: **Deliberative Discussion Template**

Deliberative Discussions: Generic Group Outline	
Topic:	Topic should include two seemingly conflicting ideas, concepts, or positions.
Related Course Lecture Topic:	Connect the activity to the appropriate corresponding lesson.
Recommended Group Size:	8-16
Suggested Length of Group:	50 Minutes
Grading Scale/Criteria:	Must be evaluated in consideration of the objectives and anticipated learning outcomes.

Introduction

Provide students with an introduction to the concepts or topics. Provide a brief history that demonstrates the complex and (seemingly) conflicting nature of the concepts, goals, or viewpoints. This can often be achieved by providing a case example, media example, or other example that demonstrates the (perceived or actual) conflict. The goal of deliberative discussions is to reach a consensus*, as opposed to remaining in separate, polarized positions.

*Consensus is defined as arriving at a common ground between parties. The parties need not to change their prior opinions or perspectives; rather they are encouraged to exercise discretion and flexibility in the interest of achieving a mutually acceptable agreement.

Objectives

Students will have the opportunity to discuss a complex issue in which there are two (perceived or actual) conflicting goals, concepts, or viewpoints. Students will discuss and articulate how the two concepts, goals, or viewpoints are in potential or actual conflict. Students will be able to articulate the background context to each viewpoint, and identify the evidence that supports those viewpoints (which may or may not be scholarly evidence, depending on the viewpoint). Students are encouraged to reflect on personal, academic, and practical experiences, course materials, and self-directed literature review in order to contribute to the class discussion effectively. A deliberative discussion is a productive discussion in which (seemingly) competing positions are discussed in order to attempt to arrive at a consensus.

Anticipated Learning Outcomes

Students will be able to:
- Articulate the complexities of the issue and understand the rationale for deliberation;
- Describe the contextual history of different viewpoints to appropriately articulate the conflict;
- Locate and apply evidence to justify statements pertaining to the issue;
- Demonstrate respectful and professional communication;
- Demonstrate evidence of seeking/ finding consensus; and

- Suggest interventions that balance the competing concepts, viewpoints, or goals.

Resources & References

Provide students with a variety of resources that are related to the topic(s) of discussion. Resources from various forms of media are recommended (scholarly journal articles, textbooks, news stories, YouTube videos, movies, etc.). Non-scholarly resources may be appropriate (or even required) in order to provide background information necessary to understand the perceived or actual conflicting concepts from different points of view (not all arguments in society are based upon credible evidence).

Revitalizing Facts & Questions

The facilitator will prepare a list of questions and facts regarding the topic that may be posed to the group in the event that the discussion becomes derailed or static. These questions should be relevant to the professional or public debate surrounding the issue in order to simulate the conversation. The facilitator may wish to create revitalizing facts and questions that are related to the student resources provided (eg: a news story, etc.) in order to open the discussion to information that students may have obtained in preparing for the discussion.

Working Expectations (Ground Rules)

(This is a suggested list of working expectations for the group, instructors are encouraged to adapt and modify this list in whatever manner is most appropriate to their classroom.)
- Please raise your hand to indicate that you wish to speak, and the facilitator will indicate when it is your time to speak.
- Please allow others to finish talking before you respond.
- All students will have equal opportunity to speak. Please be considerate of how many times you have spoken.
- It is expected that we display mutual respect for our colleagues, regardless of whether we may agree with the perspectives or opinions of others.
- Speak using professional language, being mindful of tone and the potential impact of your words and statements.
- Avoid making inflammatory comments to the best of your ability.
- If you have been offended by a colleague, it is recommended that you address this matter directly. Remember that differences of perspective are normal. Consider whether there is a potential misunderstanding in communication, and seek clarification as required.
- Remember that this is an exercise intended to develop skills, and that part of the learning experience is to learn from errors.
- Please turn your cell phones to silent for the duration of this activity, if you need to leave for any reason – please do so quietly and without disruption.

Procedure

1. Provide students with the group topic, introduction, objectives, anticipated outcomes and recommended resources in advance of the discussion date. Provide a brief overview of how the discussion will be structured, and how it will be evaluated. Inform students that the purpose of a deliberative discussion is to try and come to a consensus regarding two (seemingly) competing viewpoints or objectives. There will be no "right" or "wrong" consensus in this case, nor will the product of the conversation be static.

2. The discussion room should be organized in a manner that supports equal communication opportunities and openness. A circle of chairs or one large table with chairs is recommended. The facilitator should sit within the circle. A whiteboard may be useful for explaining ideas, and students should be encouraged to use same should they wish. Name plates are recommended for all participants.

3. The instructor should start by reviewing the discussion preamble, as well as the working expectations of the group.

4. Any student may start, and may talk as many times as they wish. All students are encouraged to participate, and the facilitator may need to intervene to ensure that everyone has an opportunity to talk. Students should wait for a classmate to finish talking before responding. Hands should be raised to indicate a desire to talk.

5. Invite the first student to share their thoughts on the topic, and their perception of the challenges that exist given the seemingly opposing positions on the topic. The student may also share their initial thoughts for the management of the conflict in consideration of information obtained from the provided/ reviewed resources.

6. The facilitator should keep notations on student participation and ability to meet the objectives outlined for the purposes of evaluating the exercise (assuming the activity is evaluated by the facilitator).

7. It is recognized that strong opinions may be provoked; the facilitator may need to remind students that this is an opportunity to practice perspective taking skills should tensions rise. Mutual respect for classmates is an expectation.

8. The facilitator must intervene and correct untrue/ misunderstood information if it is shared by a participant. Failing to do so could result in an improper understanding of the topic.

9. The facilitator should maintain a neutral role, but may wish to intervene and suggest further reading resources, facts or practice experiences that may support the overall discussion.

10. Be mindful of time, and take steps to ensure everybody has an opportunity to talk.

11. If the conversation becomes derailed in a manner that is productive and educationally beneficial, the facilitator may wish to allow this in the interest of greater learning.

12. **The facilitator may wish to provide hints or prompts that may support students in discovering possible means of consensus (as above). **The discussion should be focused solely on consensus reaching at the halfway point into the discussion time period.**

13. Provide a 5-minute warning to when the discussion will end and encourage students to share final remarks; encourage consensus.

14. Stop the conversation, review and summarize the consensus that was reached in today's discussion. Ensure the consensus is aligned with the perspective of fellow discussion group members.
15. Perform a brief debrief session with the students. Encourage them to share their experience in the group, including likes and dislikes. Be receptive to feedback and recommendations as a facilitator.
16. Consensus reaching is not necessarily easy, and the instructor should validate the difficulty of this experience.

Preamble Script

We will now begin the discussion. Please review the working expectations provided on the discussion outline (may be included in course outline, lab outline, separate hand-out). It is normal for conflict to arise between participants, given that people do not always think alike. This is normal, and this is an opportunity to practice and develop your skills in professional communication and perspective taking. Please raise your hand to indicate that you wish to speak, and please allow your colleague to finish speaking before you respond. Remember that it is an expectation to display mutual respect, regardless of any differences you may have on the issue(s) being discussed. I (the facilitator) will moderate the discussion in as neutral a way as possible. I will also be taking notes to evaluate your ability to meet the objectives of this exercise. You will not be evaluated on your position or opinion on the issue being discussed.
*If you have not done so already, review the definition of "consensus" as it pertains to this discussion (see above).

Hints & Prompts

The facilitator will prepare a short list of hints to provide students should it be noted that there is difficulty discovering a consensus.

Evaluation

The student grade for this assignment must be determined based upon the demonstrated ability of the student to meet the pre-determined objectives and anticipated learning outcomes. The grading rubric/ weight must be in keeping with the course outline and faculty standards, etc. It is recognized that certain students may have spoken more than others, however grading for this assignment is based upon the ability to meet the objectives/ anticipated learning outcomes as opposed to quantity. When evaluating this activity, it is important to remember that **the goal of deliberative discussion is to attempt to reach a consensus**.

Discussion-based Learning Method: **Structured Controversy Template**

Structured Controversy: Generic Group Outline	
Topic:	Topic of Discussion. Must involve a topic that is considered controversial and relevant to the course.
Corresponding Lecture Topic:	Connect the Discussion to the Related Lesson Content
Group Size:	8-16
Suggested Length of Group:	50 Minutes
Grading Scale/ Criteria:	Indicate the weight of the discussion activity. It must be evaluated upon ability to meet the objectives defined below.

Introduction

Provide a brief background history on the topic of discussion. Provide students with a history that provokes further inquiry and touches upon the controversial nature of the topic. The topic may be broad, but needs to be controversial on some scale.

Objectives

Students will be provided with the opportunity to explore how they are situated with respect to a controversial issue. There is no correct position to take on the issue, as long as the position taken is supported by evidence. Students are encouraged to review the resources provided below, and to perform their own literature review. Students are not limited to justifying their position with evidence from any specific disciplines, and are encouraged to explore arguments from a variety of disciplinary perspectives. This is to broaden the understanding of the barriers and arguments forming the controversy. Anecdotal (experiential) evidence is acceptable, if relevant. Students are also encouraged to discuss the topic with experienced professionals or others that they may have encountered through practical experience.

Anticipated Learning Outcomes

Students will be able to:
- Describe a controversial issue from multiple perspectives
- Locate and apply appropriate evidence to support a perspective on a controversial issue
- Demonstrate evidence of critical thinking when justifying their stance
- Demonstrate professional communication skills as evidenced by fair, respectful dialogue about a controversial issue

Resources & References

Provide a list of student resources to learn more about the topic and/ or the revitalizing facts and questions. It is recommended to use multiple forms of resources, from a variety of disciplines and media. This is to introduce a broader spectrum of perspectives, and to support different learning styles. Non-scholarly resources are appropriate, given that public opinion and culture often influence decisions surrounding controversial issues.

Revitalizing Facts & Questions

The facilitator will prepare a list of questions and facts as resources to draw upon if the discussion becomes derailed or static. These questions should be relevant to the professional or public debate surrounding the issue in order to simulate the actual controversy about the topic.

Question

Pose the question for discussion. The question should be specific and descriptive, so students are clear about the aspect of the controversy they will be discussing. The question may be worded as a "be it resolved" or "should" statement similar to those used in debate, or in a manner that is more interrogative (How do you feel about the concept of…; Do you support the concept of…?)

Working Expectations (Ground Rules)

(This is a suggested list of working expectations for the group, instructors are encouraged to adapt and modify this list in whatever manner is most appropriate to their classroom.)
- Please raise your hand to indicate you wish to speak, the moderator will indicate when it is your time to speak.
- Please allow others to finish talking before you respond.
- All students will have equal opportunity to speak. Please be considerate of how many times you have spoken, etc.
- It is expected that we display mutual respect for our colleagues, regardless of whether we may agree with the perspectives or opinions of others.
- Be mindful of tone and the potential perceived or actual impact of your words and statements.
- Avoid making inflammatory comments (perceived or actual) to the best of your ability.
- If you have been offended by a colleague, it is recommended that you address this matter directly. Remember that differences of perspective are normal. Consider whether there is a potential misunderstanding in communication, and seek clarification as required.
- Remember that this is an exercise intended to develop skills, and that part of the learning experience is to learn from errors.
- Please turn your cell phones to silent for the duration of this activity, if you need to leave for any reason – please do so quietly and without disruption.

Procedure
1. Provide students with the group topic, introduction, objectives, question, and recommended resources in advance of the discussion date. Provide a brief overview of how the discussion will be structured, and how it will be evaluated (detailed below). Remind students that the topic may provoke strong personal and professional opinions, which is normal. Remind students that the goals of structured controversy are to support critical thinking skill development, evidence based argument, and perspective taking. Students should also be aware that there is no "right" or "wrong" perspective, as long as their perspective is supported by a form of evidence.
2. The discussion room should be organized in a manner that supports equal communication opportunity and openness. A circle of chairs, or one large table with chairs is recommended. The facilitator should sit within the circle. A whiteboard may be useful for explaining ideas, and students should be encouraged to use same should they wish. Name plates are recommended for all participants.
3. The instructor should start by reviewing the discussion preamble, as well as the working expectations of the group (see below for a suggested preamble and list of working expectations).
4. Have students quickly reflect on how they situate themselves in relation to the controversy (ie: what their opinion is; what "side" they are on or leaning towards) prior to the start of the conversation. It is not required that the students share this with the group, however they may do so if they wish (provide the opportunity). This precedes the discussion, and only minimal time should be taken for this step (ie: ask students simply to state whether they support the concept or not, or if they are undecided – no justification to be provided at this point).
5. Any student may start. All students are encouraged to participate, and the facilitator may need to intervene to ensure that everyone has an opportunity to talk. Students should wait for a classmate to finish talking before responding. Hands should be raised to indicate a desire to talk.
6. Invite the first student to share their perspective and the evidence that supports this perspective.
7. It is recognized that strong opinions may be provoked, the facilitator may need to remind students that this is an opportunity to practice perspective taking skills should tensions arise. Mutual respect for classmates is an expectation.
8. The facilitator must intervene and correct untrue/ misunderstood information if it is shared by a participant. Failing to do so could result in an improper understanding of the topic.
9. The facilitator should maintain a neutral role, but may wish to intervene and suggest further reading resources, facts or practice experiences that may support the overall discussion. If taking a neutral stance is not possible (eg: Facilitator is part of an advocacy group) the facilitator may wish to declare this).
10. Be mindful of time, and take steps to ensure everybody has an opportunity to talk.
11. If the conversation becomes derailed in a manner that is productive and educationally beneficial (for example, if the class begins discussing a broader concept), the facilitator may wish to allow this in the interest of greater learning.

12. Re-direct a derailed conversation using revitalizing questions as required.
13. The facilitator may wish to challenge students who have voiced rigid or strong perspectives to try and make a reverse argument. This may assist with perspective taking skill development. In smaller groups, facilitators may wish to structure this activity mid-way through the discussion.
14. Provide a 5-minute warning to when the discussion will end and encourage students to share final remarks. Review whether anybody changed their position, and provide a brief opportunity for students to explain why or why not.
15. Consensus reaching is not necessarily a goal of this exercise, however may be a worth pursuing in cases where there may be very strong beliefs for/ against the topic. Consensus is defined as arriving at a common ground between parties. The parties need not to change their prior opinions or perspectives; rather they are encouraged to exercise discretion and flexibility in the interest of achieving a mutually acceptable agreement.
16. Perform a short debrief session with the students. Encourage them to share their experience in the group, including likes and dislikes. Be receptive to feedback and recommendations as a facilitator. Reflect upon the usefulness of the exercise in achieving the listed learning objectives and anticipated outcomes.

Preamble Script

We will now begin the discussion. Please review the working expectations provided on the discussion outline (may be included in course outline, lab outline, separate hand-out, etc.). It is normal for conflict to arise between participants, given that people do not always think alike. This is normal, and this is an opportunity to practice and develop your skills in professional communication and perspective taking (among other things). Please raise your hand to indicate that you wish to speak, and please allow your colleague to finish speaking before you respond. Remember that it is an expectation to display mutual respect, regardless of any differences you may have on the issue(s) being discussed. I (the facilitator) will moderate the discussion in as neutral a way as possible. I will also be taking notes to evaluate your ability to meet the objectives of this exercise. You will not be evaluated on your position or opinion on the issue being discussed. If you have not done so already, review the definition of "consensus" as it pertains to this discussion (see above).

Evaluation

The student grade for this assignment must be determined based upon the demonstrated ability of the student to meet the pre-determined objectives and anticipated learning outcomes. The grading rubric/ weight must be in keeping with the course outline and faculty standards, etc. It is recognized that certain students may have spoken more than others, however grading for this assignment is based upon the ability to meet the objectives/ anticipated learning outcomes as opposed to quantity. When evaluating communication skill/ style, it is important to consider that structured controversy has the potential to evoke strong emotions, and is an exercise in developing communication skill (perfection should not be expected).

Discussion-based Learning Method: **Problem Based Discussion Template**

Problem Based Discussion: Generic Group Outline	
Topic:	Select a topic that includes a problem that needs to be solved. This could be a socio-cultural policy problem, current world event, problem present in a specific profession, political problem, etc. You must be able to write a problem statement related to the topic selected.
Related Lecture Topic:	Relate the discussion topic to the appropriate corresponding course lesson content.
Recommended Group Size:	8-16
Suggested Length of Group:	90 minutes (due to active learning component)
Grading Scale/ Criteria:	The activity must be graded based upon the ability of the students to achieve the objectives that must be clearly outlined in advance.

Introduction

In this section, introduce the topic of discussion in a manner that simulates the complex aspects of a potential problem that needs to be solved. The problem is not intended to have a clear solution, and should include a realistic simulation of a complex scenario. This can be achieved by providing a case study (real or fictional) in which the problem is encountered. The problem can be related to public policy, a profession specific practice, current events, societal situational crisis, politics, etc. Develop or locate a case study to clearly highlight the problem that is being encountered. Provide sufficient detail in the case study to support the conversation and any active learning components connected to this activity.

The active learning component includes a group activity that simulates the complexities of attempting to solve the problem within existing frameworks and structures. Potential active learning activities could include: applying for funding to implement a new initiative, obtaining a permit, writing an organizational position statement, writing a proposal to solve the problem, etc. It is not necessary for the problem to have any one clear solution.

You may need to provide hand-outs of additional reference materials to support your case study and active learning objectives.

Objectives

Students will have the opportunity to discuss a case "problem". Students will be provided with the necessary background information to complete an active learning task that simulates the complexity of addressing or solving the problem identified in the case study. Students will endeavor to solve the problem within existing frameworks/structures (or lack thereof). The term "solve" is used loosely, as the "problem" provided is intended to be complex, multifactorial, and is

not intended to have a clearly defined solution. Students will review lecture notes, course readings, and the recommended resources to locate information that will assist in "solving" the problem. This is not intended to be an easy task. Students will also be encouraged to assess and describe their personal opinions, emotions, and biases in relation to the situation.

Anticipated Learning Outcomes

Students will be able to:
- Describe the complexities of the problem and the limitations of existing frameworks and structures designed to address the problem (or lack thereof).
- Apply critical thinking skills to articulate ideas specific to the case problem and the limitations of existing structures and frameworks (or lack thereof).
- Work collaboratively to discuss how they might ultimately solve the problem
- Locate and apply appropriate evidence to support opinions and suggestions.
- Demonstrate evidence of critical thinking when justifying their stance
- Demonstrate professional communication skills as evidenced by fair, respectful dialogue on a controversial issue; and
- Work effectively as a team in order to complete the active learning component of this exercise.

Problem

The problem statement is intended to focus the students' attention on the challenge faced in the simulated case study. This is where you will also introduce the active learning component of the discussion, in which students will try (as a group) to solve the problem within the limitations of existing policies and standards (or lack thereof). Given the complexity of the case study (which is to be realistic in nature), the existing policies and standards should not be an ideal or adequate fit in the context of the case study (or may not exist at all). This should promote further discussion and exploration of alternative solutions and/ or recommended changes to existing frameworks.

Resources & References

Provide students with a variety of resources that are related to the topic(s) of discussion. Resources from various forms of media are recommended (scholarly journal articles, textbooks, news stories, YouTube videos, movies, etc.). Non-scholarly resources may be appropriate (or even required) in order to provide background information necessary to understand the perceived or actual conflicting concepts from different points of view (not all arguments in society are based upon substantiated evidence).

You will also need to provide students with the necessary resources to complete the active learning component of this activity.

Suggested Active Learning Activities

In order to simulate the most realistic situations possible, it is recommended that the active learning activity be based upon completing a task that would be encountered when trying to

solve the problem in real life. For example, if discussing supervised injection sites, students may be given the task of completing a development proposal / application to be considered by the municipal planning committee. You would also provide a list of current laws and regulations to simulate the potential difficulties that would be encountered through the application process.

Working Expectations (Ground Rules)

(This is a suggested list of working expectations for the group, instructors are encouraged to adapt and modify this list in whatever manner is most appropriate to their classroom.)
- Please raise your hand to indicate you wish to speak, and the facilitator will indicate when it is your time to speak.
- Please allow others to finish talking before you respond.
- All students will have equal opportunity to speak. Please be considerate of how many times you have spoken.
- It is expected that we display mutual respect for our colleagues, regardless of whether we may agree with the perspectives or opinions of others.
- Be mindful of tone and the potential perceived or actual impact of your words and statements.
- Avoid making inflammatory comments (perceived or actual) to the best of your ability.
- If you have been offended by a colleague, it is recommended that you address this matter directly. Remember that differences of perspective are normal. Consider whether there is a potential misunderstanding in communication, and seek clarification as required.
- The active learning component of this activity is intended to be completed as a team with contribution by all participants.
- Remember that this is an exercise intended to develop skills, and that part of the learning experience is to learn from errors.
- Please turn your cell phones to silent for the duration of this activity, if you need to leave for any reason – please do so quietly and without disruption.

Procedure

1. Provide students with the group topic, introduction, objectives, problem statement, and recommended resources in advance of the discussion date. Provide a brief overview of how the discussion will be structured, and how it will be evaluated. Inform students that the purpose of a problem based discussion group is to discuss and work through a particular challenge or problem by sharing and applying evidence obtained from various sources. Students should also be aware that there may be no clear solution to the problem.
2. The discussion room should be organized in a manner that supports equal communication opportunities and openness. A circle of chairs, or one large table with chairs is recommended. The facilitator should sit as part of the circle. A whiteboard or other form of overhead projection will be required for this exercise, in order to complete the active learning component. The facilitator may take on the role of recording the active learning component for the group, or delegate this task to a

student or co-facilitator (if available). Name plates / cards should be used to identify the names of each student participating in the discussion.

3. The facilitator will start by explaining the discussion, and the procedure that will follow. At this time, the instructor should also review the "preamble" and working expectations of the group (examples provided below).

4. The facilitator will review the case study, objectives, and problem statement. Students should be provided with a print-out of this information to reference throughout the discussion.

5. The facilitator starts the conversation with a general discussion regarding the information learned from the resource review.

6. All students are encouraged to participate, and the facilitator may need to intervene to ensure that everyone has an opportunity to talk. Students should wait for a classmate to finish talking before responding. Hands should be raised to indicate a desire to talk.

7. The facilitator should keep notations on student participation and ability to meet the objectives outlined for the purposes of evaluating the exercise.

8. Following the opening discussion, the facilitator will shift focus to the active learning task to be completed. Copies of any related/ required documents may need to be distributed at this time.

9. The facilitator may need to gently encourage students to focus on the "best fit" in regards to completing the active learning activity in the context of the case study, and may need to remind students that this is a complex case with no clearly defined solution.

10. Wherever possible, the facilitator should provide students with tips and thought provoking questions that encourage students to determine potential interventions themselves, as opposed to the instructor taking on the role of a traditional lecturer. However, the facilitator must intervene and correct untrue or misunderstood information if it is shared by a participant. Failing to do so could result in an improper understanding of the topic.

11. The facilitator may ask questions that trigger discussion and critical thinking regarding the lack of a clear solution to the problem.

12. Provide a 5-minute warning to when the discussion will end and encourage students to share final remarks.

13. Perform a brief debrief session with the students. Encourage them to share their experience in the group, including likes and dislikes. Be receptive to feedback and recommendations as a facilitator. Consider providing your thoughts on the experience as a facilitator.

14. Provide students with a copy (can be done following the discussion) of the final active learning product to take home as part of their learning.

Preamble Script

We will now begin the discussion. Please review the working expectations provided on the discussion outline (may be included in course outline, lab outline, separate hand-out, etc.). It is normal for conflict to arise between participants, given that people do not always think alike. This is normal, and this is an opportunity to practice and develop your skills in professional communication and perspective taking (among other things). Please raise your hand to indicate

that you wish to speak, and please allow your colleague to finish speaking before you respond. Remember that it is an expectation to display mutual respect, regardless of any differences you may have on the issue(s) being discussed. I (the facilitator) will moderate the discussion in as neutral a way as possible and document the active learning component of this exercise. I will also be taking notes to evaluate your ability to meet the objectives of this exercise. You will not be evaluated on your position or opinion on the issue being discussed.

Evaluation

The student grade for this assignment must be determined based upon the demonstrated ability of the student to meet the pre-determined objectives and anticipated learning outcomes. The grading rubric/ weight must be in keeping with the course outline and faculty standards, etc. It is recognized that certain students may have spoken more than others, however grading for this assignment is based upon the ability to meet the objectives/ anticipated learning outcomes as opposed to quantity.

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Appendix 'A' – Evaluation Recommendations

It is recognized that evaluation of discussion-based collaborative learning groups can be challenging. As such, some recommendations are detailed below for your consideration. The recommendations focus on evaluations for summative purposes, as opposed to formative feedback. All recommendations are adapted from the original work of Barkley, Major, & Cross, (2014), *Collaborative learning techniques: A handbook for college faculty*.

Step 1: Decide what you want to evaluate.
There are two different foci that could potentially be evaluated in collaborative learning exercises:

1. The product (the outcome of the activity, such as an active learning activity completed as a group during the discussion); or
2. The process (the teamwork and social skills components of the exercise).

Step 2: Decide who evaluates.
Collaborative learning exercises can be evaluated by the instructor, student self-evaluation, or student peer evaluation (or any combination of these).

Instructors can evaluate based on product, process, or both. Instructor based evaluation allows for an expert opinion on achievement of objectives and outcomes.

Student self-evaluation allows for reflection and supports critical appraisal of one's own work. However, when grades are involved, students may be reluctant to negatively evaluate themselves. Self-evaluation can be used for both product and process, but is most often used to evaluate process.

Peer based evaluation allows for a first hand assessment of the group process, however significant time may be required to properly instruct students on how the evaluation is to occur. Peer based evaluation is primarily used to evaluate group process.

Step 3: Individual Grades or Group Grades?
A decision needs to be made about whether to evaluate individuals, the group as a whole, or both.

Individual grading ensures individual accountability to the group product or process, however fails to recognize the importance of the group effort.
Group grading places the accountability for the group product or process on the entire group, which highlights the importance of teamwork and group dynamics. However, it fails to address individual accountability issues (such as a student who did not attend).

It is possible to assign grades to **both** the individual and group. This can be done by assigning weight to each aspect and calculating the grade mathematically.

Sample Rubrics:

Sample rubrics to assist in the evaluation of group processes are located below:

Table 1: Instructor graded rubric, basic group discussion

	Low Performance 0 Points	Meets Expectations 1 Point	Exceptional 2 Points
Knowledge	Contributions to group discussion do not demonstrate understanding of the topic; student does not incorporate supplementary readings or evidence	Contributions to group discussion demonstrate basic understanding of the topic; student incorporates mostly personal experiences with few connections to other evidence	Contributions to conversation demonstrate excellent understanding of the topic; student incorporates personal experience and connections to evidence
Responding	Does not respond to classmates; contributes to dialogue in a vague manner (eg/ "I agree"); seldom engages classmates in conversation	Sometimes offers additional explanation or elaboration in response to classmates; occasionally engages classmates in conversation	Consistently offers additional explanation or elaboration in response to classmates; actively engages classmates in conversation
Contribution to Dialogue	Limited participation and engagement; seldom makes connections between discussion content and course content	Satisfactory participation and engagement; occasionally makes connections between discussion content and course content	Exceptional participation and engagement; is able to make connections between discussion content and course content
Adapted from: Barkley et al., 2014, p. 103			

Table 2: Student self-evaluated rubric, group process

Name:					
Group ID:					
Project / Discussion Title:					
Instructions: Rate yourself on your performance as part of the group by using the following scale:					
	Always 5	Frequently 4	Sometimes 3	Rarely 2	Never 0
1. I was prepared to contribute to the group.					
2. I stayed on task during conversation and group work time.					
3. I listened respectfully to others.					
4. I participated in discussion.					
5. I encouraged others to participate.					
6. Overall, I felt my performance in the group should be rated:					
Adapted from: Barkely et al., 2014, p. 109					

Table 3: Sample peer evaluation rubric, group process

	Needs Improvement 1	Adequate 2	Outstanding 3
The team member…			
Prepares			
Listens			
Contributes			
Respects others			
The team member demonstrates the following skills:			
Critical thinking			
Problem solving			
Communication			
Decision making			
Total score:			
Adapted from: Berkley et al., 2014, p. 110			

Reference:

Barkley, E.F., Major, C.H., & Cross, K.P. (2014). *Collaborative learning techniques: A handbook for college faculty* (2nd Ed.) San Francisco, CA: Jossey-Bass.