ChE teaching tips

Running Effective Meetings

During their formal education, chemical engineering majors are given a number of opportunities to engage in group or team activities, including in courses such as unit operations, process control, process design, and various required or elective courses where group projects are assigned. Such activities invariably require group member meetings where goals, plans, individual assignments, and results are discussed. Students (and faculty) may view meetings (specifically committee meetings) negatively, and subscribe to the remarks offered by Thomas Sowell:

> *"People who enjoy meetings should not be in charge of anything,"*

and Alfred E. Smith:

> *"A committee is a group of people who individually can do nothing, but collectively can meet and decide that nothing can be done".*

Although the above platitudes are often true, they belie the critical and positive role that meetings play in effective, efficient, and successful operation of a team or organization. By including information in team-based courses on how to run effective meetings, we develop professional skills, attitudes, and approaches in students, give them an opportunity to practice these during their academic program, and assist their career preparation.

Meetings are often bad, ineffective, and a waste of time because of ineffective leadership and unprofessional behavior by the attendees. The planning process and procedures involved in running effective meetings can therefore present opportunities for students to connect technical discussions to teamwork skills. Students should be required to devise a Code of Conduct for their meetings. This begins with the duties of the meeting organizer who must plan carefully prior to the meeting and inform attendees in advance of (1) the meeting purpose, (2) the agenda, (3) the start and stop times. During the meeting the organizer must keep the discussion focused in order to achieve the meeting purpose, perhaps by reminding the group of the purpose and asking if the current discussion is leading to resolution. The organizer must insist that civility reigns and he/she is responsible for re-directing the discussion when remarks and disagreements become focused on individuals rather than concepts.

The Code of Conduct requires that during the meeting, respect, inclusiveness, and open-mindedness must characterize interactions, discussion, and debate. Everyone should be encouraged to offer their thoughts and ideas in order to reap the benefits of synergy. Acknowledgment and consideration of all viewpoints must be ensured to gather pertinent information and approaches relevant to the decision or conclusion needed. Subsequent evaluation and debate can then establish the most appropriate and viable approaches. Objections and concerns with the considerations and directions being discussed should be invited to reflect upon alternative views. Although the meeting organizer or another individual should monitor the time elapsed, all attendees must show respect for others' time by arriving on time and focusing on the meeting goals.

One attendee should serve as the scribe to ensure that pertinent comments and discussion are captured. At the end of the discussion, a summary of the conclusions should be presented to allow clarifications and corrections to be voiced. After the meeting, the scribe should distribute a brief written summary and follow-up actions, including timeframe, and a designation of the individuals responsible for these actions.

If any of these aspects or duties are overlooked or given insufficient attention, meeting outcomes may be compromised. When meeting attendees adhere to specific behaviors, the goals of a meeting can be met and side benefits realized effectively and efficiently while maintaining or promoting collegiality and professional interactions. For instance, each attendee will have had the opportunity to raise questions, understand others' opinions and viewpoints, and be part of a decision that furthers team accomplishments and goals. Side benefits include learning something new, gaining insight that participants did not have previously, developing alternative (novel) ideas and approaches, and enhancing camaraderie.

Students are aware of and perhaps familiar with professional Codes of Ethics (*e.g.*, AIChE, ACS). A valuable assignment in this regard is to ask students to compare and contrast a Code of Ethics with a Code of Conduct. Since the former code relates to values and decision-making, while the latter relates to behavior or actions, recognition of how values and personal experiences affect behavior and decision-making can be highlighted and discussed. ❏

—DENNIS W. HESS

Submit teaching tips of about 450 words to Phil Wankat, <wankat@ecn.purdue.edu> for review and editing. Subject: CEE Teaching Tip. See http://che.ufl.edu/CEE for guidelines.