ACTIVITY 5

Working Together: Team Building for Effective Learning and Design

DISCOVERY

Purpose

In this activity, you will learn about effective team building and the factors that contribute to successful teams.

Learning Objectives

- Identify essential team behaviors that lead to successful completion of activities and the design project
- Explain how team behaviors support different team roles

Required Resources

- "Designing Teams and Assigning Roles," by Peter Smith
- "Teamwork Methodology," by Peter Smith, Marie Baehr, and Karl Krumsieg
- "Team Reflection," by Patricia Hare

Deliverable

- Prepare a one-page document that addresses your work in Tasks 1 and 4

Information

This activity includes three readings from the *Faculty Guidebook – A Comprehensive Tool for Improving Faculty Performance*, 4th Edition, edited by Steve Beyerlein, Carol Holmes, and Dan Apple and is used by permission. Each of the readings addresses an aspect of team building. More about the *Faculty Guidebook* is available at: www.pcrest.com

Task 1

Spend about ten minutes reading one of the three documents that has been assigned to you. Once you have completed the reading, spend another five minutes preparing a one page outline of the most important points covered in the document.

Task 2

Discuss your outline with your assigned partner. Your task is to prepare a three minute presentation on the paper that you read. The presentation should focus on what the audience should know and be able to do after hearing your presentation.

Task 3

Make your three minute presentation.

Task 4

As you listen to the other presentations, make a list of 2 to 3 key conclusions from the presentations. Confirm your conclusions with the presenters.

Student Notes:

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3.4.2 Designing Teams and Assigning Roles

by Peter Smith (Mathematics & Computer Science, St. Mary's College, Emeritus)

For many faculty members, the issues surrounding team construction and management are significant. This module explores methods for implementing the use of roles in the classroom, including assigning students to teams and requiring team members to perform in roles. Because the workplace has become much more team-oriented over the past two decades, it is important that students learn to work well in teams; and students who participate in team environments are much better prepared to succeed on the job than are those without teaming experience. Although it is not yet common for business or industry to employ formal process-oriented roles for team members, graduates who have used roles frequently in undergraduate courses realize that the use of roles would dramatically improve team performance.

Why Roles are Important

Using roles helps team members to become interdependent (Johnson, Johnson, & Smith, 1991) and to be individually accountable for team success. It helps them to increase their learning skills (Apple, Duncan-Hewitt, Krumsieg, & Mount, 2000), and speed up the four stages of team development: forming (goal setting), storming (conflict resolution), norming (problem-solving), and performing (Tuckman, 1965). Roles should be rotated frequently so that each student has the opportunity to practice each role and to realize that effective learning requires that teams use all of the roles simultaneously. Rotating roles discourages dominance by one person and gives all students opportunities to practice social, communication, and leadership skills (Millis & Cottell, 1998). The roles introduced in this module are effective for enhancing team performance because each team member is empowered by his or her role to make a unique and significant contribution to the learning process.

Cooperative versus Collaborative Learning

The use of roles in learning activities is at the heart of the controversy between cooperative and collaborative learning. Although both approaches use small-group learning and encourage cooperative behavior, positive interdependence, and individual accountability, collaborative learning advocates hold that interdependence will occur naturally and that no attempt should be made to structure it. Therefore, the facilitator should not assign teams or roles, and should neither assess learning skills and performance, nor structure their development (Davidson, 1994). Cooperative learning is much more structured. The facilitator strives to ensure that the teams have diverse membership, he or she constantly assesses the skill level and performance of each student, and plans activities that will allow students to improve. When fulfilling the responsibilities of team roles, students must use many learning skills, so the facilitator has opportunities to intervene to help the individual student while ostensibly helping the team improve its performance (***3.2.3 Facilitation Methodology***).

Table 1 ***Various Team Roles and When to Use Them***

E = Essential O = Optional NA = Not Applicable

Learning Situation	*Captain*	*Recorder*	*Reflector*	*Spokes-person*	*Technology Specialist*	*Planner*	*Time Keeper*	*Skeptic*	*Optimist*	*Spy*
Cooperative Learning	E	E	E	O	O	O	O	O	O	O
Laboratory	E	E	E	NA	E	O	O	O	O	O
Project	E	E	E	O	O	E	O	O	O	O
Problem Solving	E	E	E	O	O	E	O	O	O	NA
Student Presentation	E	O	E	E	O	O	E	O	O	O
Student Teaching	E	O	E	E	O	O	E	O	O	O
Committee Work	E	E	E	E	O	E	O	O	O	NA
Department Business	E	E	O	NA	E	E	O	O	O	NA
Grant Writing	E	E	E	O	O	E	O	O	O	NA
Peer Assessment	O	E	E	E	NA	NA	O	O	O	NA

Performance Criteria for Team Roles

Captain

1. Facilitate the team process, keeping it enjoyable and rewarding for all team members.
2. Make sure each member has a role and is performing within that role.
3. Ensure that all team members can articulate and apply what has been learned.
4. Manage time, stress, and conflict.
5. Accept accountability for the overall performance of the team.
6. Contribute to the group as an active learner.

Recorder

1. Record group roles and instructions at the beginning of a task or activity.
2. During an activity, record and collect important information and data, integrating and synthesizing different points of view.
3. Document group decisions and discoveries legibly and accurately.
4. Accept accountability for the overall quality of the recorder's report.
5. Control information flow and articulate concepts in alternative forms if necessary.
6. Contribute to the group as an active learner.

Reflector

1. Assess performance, interactions, and the dynamics among team members, recording strengths, improvements, and insights ***(4.1.9 SII Method for Assessment Reporting)***.
2. Be a good listener and observer.
3. Accept accountability for the overall quality of the reflector's journal.
4. Present an oral reflector's report positively and constructively if asked to do so.
5. Intervene with suggestions and strategies for improving the team's processes.
6. Contribute to the group as an active learner.

Spokesperson

1. Speak for the team when called upon to do so.
2. Ask questions or request clarification for the team.
3. Make oral presentations to the class for the team.
4. Use the recorder's journal to share the team's discoveries and insights.
5. Collaborate periodically with the recorder.
6. Contribute to the group as an active learner.

Technology Specialist

1. Use the available technological tools for the team activity.
2. Listen, converse, and collaborate with team members; synthesize inputs, try suggestions and/or follow directions for the technology.
3. Retrieve information from various sources; manage the available resources and information.
4. Help team members understand the technology and its use.
5. Be willing to experiment, take risks, and try things.
6. Contribute to the group as an active learner.

Planner

1. Review the activity, develop a plan of action, and revise the plan to ensure task completion.
2. Monitor the team's performance against the plan and report deviations.
3. Contribute to the group as an active learner.

Timekeeper

1. Observe the time resource for the activity and/or record the time allocation announced by the facilitator.
2. Keep track of the elapsed time for various tasks and notify the captain when the agreed-upon time has expired.
3. Contribute to the group as an active learner.

Optimist

1. Focus on why things will work.
2. Keep the team in a positive frame of mind.
3. Look for ways in which team discoveries can be applied or used to the team's advantage.
4. Contribute to the group as an active learner.

Skeptic

1. Question and check the assumptions that are being made.
2. Determine the issues or reasons why quality is not being met at the expected level.
3. Be constructive in helping the team improve performance.
4. Contribute to the group as an active learner.

Spy

1. Eavesdrop on other teams during an activity to gather information and seek clarification of direction.
2. Relay information that can help the team perform better.
3. Contribute to the group as an active learner.
(Myrvaagnes, Brooks, Carroll, Smith, & Wolf, 1999)

Issues Surrounding Team Design

1. Although teams can contain any number of participants, most college and university level practitioners prefer groups of four for cooperative learning activities (Millis et al., 1998). Quads are small enough to engage each student, but large enough to provide a rich mix of ideas. Four-person teams can also be easily split into pairs for "think, pair, share" activities. Cooperative learning advocates David and Roger Johnson recommend three-person teams, and up to three of these may be necessary if the number of participants is not divisible by four. If absenteeism is a serious problem, five-person teams may be optimal, although regular attendance is vital because each student has a responsibility to contribute to the team's efforts. Sporadic attendance is a severe handicap to success with cooperative learning.

2. Project, problem-solving, committee-work, and grant-writing teams can be, and probably should be, larger than four, depending on the task to be accomplished and the number of available participants. It is best to assign permanent roles in these teams based on the strengths of the individual members because consistently high performance is more important than learning growth in these circumstances. The captain should be extremely well organized, self-confident, and able to inspire the team to excel. The recorder should be skilled at synthesizing the essential meaning from team discussion and keeping very organized records. The reflector should excel at multiprocessing and be confident enough to suggest improvements, even if they may imply substandard performance by one or more team members. The planner should be very creative and persistent, but flexible enough to accept changes in the plan as the project evolves.

3. Peer assessment and student teaching teams may well be smaller than four, perhaps as small as two, since they have sharply focused goals. All required role activities have to be accomplished, but formal role assignments may not be necessary. The work in these teams is usually divided fairly between the members.

4. Cooperative learning teams may be formed in a number of ways, such as random selection by counting off or drawing cards from a deck, student or participant selection, teacher or supervisor selection, or a combination of the last two. The goal is always to provide the greatest diversity within each team. Random teams often provide this diversity, but there is no way to ensure it. Research shows that participant-selected teams are not diverse and are unlikely to be successful (Fiechtner and Davis, 1985). Participants can suggest several people they would like to work with, and the facilitator can take these requests into account when assigning teams; the aim being to preserve diversity in gender, ethnic background, academic preparation and ability, and discipline or major. In order to gather the information needed to assign teams, many facilitators delay forming permanent teams until they can collect data sheets from students and observe them in learning situations.

5. Teams should be designed to accomplish the task for which they are formed. They can exist for short periods (e.g., formed to complete a five-minute in-class exercise), they can work together for several weeks to complete a project, or they can stay together for a whole semester or longer to provide long-term emotional and academic support (Duncan-Hewitt, 1995). Forming new groups midway through the semester gives students the chance to work with new individuals, thus providing a more realistic simulation of on-the-job teamwork. When deciding if and when to restructure the teams, it is important to carefully consider the learning needs of the participants and how well the current teams are functioning. Younger or more inexperienced students are more likely to need the support that long-term groups provide. Those close to graduation may profit from more frequent team membership changes.

6. One of the first team activities should encourage the team members to introduce themselves and learn about each others' learning styles. At this time, the team should agree to expectations or ground rules for all members.

   Suggested ground rules for team activities (Silberman, 1998):

   - Start on time with everyone present
   - Be prepared
   - Get to know members who are "different" from oneself
   - Be gender/race/ethnicity sensitive
   - Give everyone a chance to speak
   - Let others finish speaking without interrupting them
   - Be brief and to the point
   - Share the workload
   - Rotate group roles
   - Reach decisions by consensus
   - Assess team functioning periodically

Guidelines for Implementing Team Roles

1. The facilitator must check that students have assumed and rotated roles, must intervene to improve role performance, and give credit for conscientious role fulfillment via learning journal reports or other means (***4.1.4 Assessment Methodology***).
2. To ensure that reflectors improve their performance, the facilitator should take time for reflectors to share oral reports with the class, frequently in the beginning of the term and at regular intervals thereafter.
3. Students with roles other than captain, recorder, and reflector often fail to appreciate the importance of their roles. The facilitator should intervene to recognize team members who do well in these other roles or to ask the team if they would like to be informed of specific instances when using these roles would enhance performance.
4. Reflectors may withdraw from active participation in the group in order to observe and write down their assessments. The facilitator should encourage them to observe while fully participating and to take a minute at 15-20 minute intervals to jot down their assessment.
5. Recorders may complain that they are so busy writing that they have no time to think or to process what the team is doing. They need to be encouraged not to write everything down, but to synthesize the discussion in a few well-constructed sentences.
6. When the captain is very shy, introverted, or not confident, another team member is likely to take over that role. To fix this situation, the facilitator should address all team intervention questions to the captain, refer to the team using the name of the captain (unless the team has chosen another name), hold the captain responsible for time management, and attempt to make eye contact with the captain when giving positive nonverbal feedback to the team.
7. The nature of the team roles and the responsibilities of those fulfilling the different roles may well change as the team moves through stages of development. More permanent roles may be appropriate in the latter stages of team development.

Concluding Thoughts

The effort needed to establish team roles and train students in their use pays big dividends in increasing learning. Roles also help ensure fair participation in the group process by all the learners. Students who value and experience defined roles in the group process will be prepared to assume a variety of roles in the workplace and in community and extracurricular activities as well.

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3.4.3 Teamwork Methodology

by Peter Smith (Mathematics & Computer Science, St. Mary's College, Emeritus), Marie Baehr (Vice President for Academic Affairs, Coe College), and Karl Krumsieg (Vice President of Operations, Pacific Crest)

Teamwork is essential when a group of people strive to achieve a common goal. Because teamwork is a process, a methodology is needed to better understand and master performance in this area. This module presents a methodology that can benefit team performance by experts as well as novices. To demonstrate how the methodology might be practiced by people with different levels of experience, two examples are presented: one that involves a team of students, and one that involves a team of faculty members.

Need for a Teamwork Methodology

The dictionary defines *teamwork* as the joint action by a group of people in which individual interests be-come secondary to the achievement of group goals, unity, and efficiency. In other words, teamwork involves a group of people actively cooperating in an organized way to achieve a goal. The process of teamwork has become commonplace throughout organizations in all areas of society, including business and industry, health care, public service, government, and education (Commission on Accountability in Higher Education, 2005). The benefits of teamwork are numerous. When an effective teamwork process is employed, more can be accomplished with better results. Individuals working within teams also develop many beneficial skills: teaching new skills to others, learning to negotiate, exercising leadership, and working with diverse people in diverse situations; being part of a team effort in which individual members are held accountable (Millis & Cottell, 1998).

Teamwork is an individual skill: everyone in an organization must take responsibility for the performance of each team to which they are assigned; otherwise individuals can justify non-performance by blaming the team (Avery, 2001). Teamwork differs from project management in that it focuses on team formation and the behaviors and attitudes of the team members; not just the successful accomplishment of the project, goal, or product (Smith & Imbrie, 2005). Team membership calls on a participant's personal development skills (***4.2.3 Personal Development Methodology***), but it also requires individuals to establish relationships and interact with other team members. Teamwork requires leadership skills, but it is just as important for team members to be able to support the leadership of another. In fact, teams are seldom allowed to reach their full potential when they adhere to the traditional concept of a leader who makes a majority of the decisions (Maxwell, 2001). Team activities can employ a number of methodologies, such as communication, learning, problem solving, research, and design; but none of these focus on team formation and group processing. The reader is encouraged to compare the guidebook modules describing these methodologies with the Teamwork Methodology listed in Table 1 and to note differences in emphasis.

Table 1 ***Teamwork Methodology***

1. **Define the Mission:** Establish a common vision and goals for the team.
2. **Recruit Members**: Assemble the individuals to meet the needs of the team.
3. **Collect Resources**: Identify and collect resources available to the team.
4. **Build the Team**: Assign members to appropriate roles.
5. **Create and Implement Plan:** Schedule the resources for identified tasks and perform the plan.
6. **Assess Performance**: Assess the performance of the team against the plan
7. **Modify the Plan**: Make periodic improvements to the plan.
8. **Provide Closure**: Provide a final point or end; celebrate accomplishments.

A Simple Example of the Methodology

Scenario: The instructor for a capstone course in an engineering program has decided to use teams to more realistically simulate the process of project design and development. One of the project options is to design a high-impact tester to shock test circuit boards for naval warships.

1. **Define the Mission**

   Student teams must complete a high-quality drawings package for a high-impact tester that can be used by an electronics company for the eventual fabrication of this device.

2. **Recruit Members**

   The course instructor composes teams using information gained from an email questionnaire completed by students shortly before the first class session. The aim is to preserve diversity in gender, ethnic background, academic preparation, and discipline or major. The instructor must staff multiple projects, and all must have an equal likelihood for success.

3. **Collect Resources**

   The instructor identifies software tools, fabrication facilities, and working space required by each team. In this case, solid modeling software is installed on the lab computers. The lab also has meeting areas for pri-vate team meetings. The flawed and incomplete blueprints from the Navy are also available.

4. **Build the Team**

   On project assignment day, team members interview each other to discover their interests and personal goals for the course. Each team is asked to develop a shared vision of project success and to determine relevant roles that motivate each member. The team working on the impact tester sets a goal of having their design selected by the client and having their device installed within two months after the finalization of the drawing package. They select roles of project manager, document clerk, reflector, and client com-munications coordinator.

5. **Create and Implement the Plan**

   Each team creates milestones to ensure that the project is completed on time. They use insights gained from a client interview with a lead engineer at the electronics company to divide the work as fairly as possible according to ability and interest. Each team draws up a detailed plan to meet their first milestone and all team members commit to it.

6. **Assess Performance**

   The project manager periodically checks to ensure that tasks are being satisfactorily accomplished in a timely manner. He finds that two tasks require more work than was anticipated. The reflector also touches base with each team member regularly and finds that those assigned to the difficult tasks are becoming frustrated.

7. **Modify the Plan**

   At the team's next meeting they confront the problem of task difficulty. Two members who have com-pleted their tasks volunteer to help with the tasks that are falling behind schedule. They agree to distribute tasks more equitably when they plan for the next milestone.

8. **Provide Closure**

   After presenting the results of the first milestone to their client, the team goes out for pizza to celebrate a job well done and to get revved up for the next milestone.

Discussion of the Teamwork Methodology

1. **Define the Mission**

   The first step to building a team involves identifying and defining the purpose and objectives for the team. The mission influences who is recruited, what resources are needed, and what main tasks need to be performed. In some cases, teams are formed to accomplish a specific goal; in other cases, teams maintain their structure but may change the people involved.

2. **Recruit Members**

   One should identify and recruit people who believe in, and are committed to, the stated mission. These individuals should define their goals and objectives, share their reasons for involvement, and indicate how their participation can strengthen the performance of the team.

3. **Collect Resources**

   The mission statement influences what resources are required to meet the team's goals and objectives. One should identify the available resources and determine what additional resources need be obtained. Examples of a team's resources include the team members and their skills, financial assets, information, computers, physical equipment and facilities, time, and the team members' individual resources that they are willing to contribute for the team's use.

4. **Build the Team**

   It is important that team building occurs at this point and continues throughout the process. Participants must build shared ownership of the team's goals and objectives, and all must believe that these are worthwhile and attainable. By assigning roles with job descriptions, one enhances the team's accountability, performance, and unity while helping to facilitate team goals. Depending on the purpose and length of the team's mission, roles should be periodically rotated so that everyone can gain experience and improve skills in different areas.

5. **Create and Implement the Plan**

   The process of creating the plan need not be democratic; however, it is important that all members accept responsibility for implementing it. Successful completion of the plan depends on "buy in," or acceptance, by all team members. It is important that as the team implements the plan, all members perform according to their roles. The team captain is responsible for team's overall performance.

6. **Assess Performance**

   Each member's performance should be regularly assessed according to the criteria set for each role. The team as a whole should also be regularly assessed as it works toward meeting its goals and objectives. By assessing during the early stages of the plan (as well as on a regular basis), it is possible to determine what is working and what needs to be changed.

7. **Modify the Plan**

   The plan of action should be updated as dictated by the situation and/or by the team's performance. Changes and modifications can be made for both the short term and long term. In addition to modifying the plan, one may also change the situation by shifting roles within the team, adding new team members, obtaining additional resources, or by changing the goals and objectives.

8. **Provide Closure**

   All team members should know when the plan is completed or the objectives have been met. Both individual and team accomplishments should be acknowledged and celebrated.

Another Example of the Methodology

Scenario: A college needs to replace its Director of Information Technology. The Academic Dean assigns a search committee to this task.

1. **Define the Mission**

   The mission is to find an outstanding candidate for the position of IT director and to prepare a report for the dean.

2. **Recruit Members**

   The dean consults the department heads of those areas that interact most closely with IT and asks them to recommend persons under them who will be competent and committed to the search com-mittee process. She suggests that potential search committee members submit written statements de-scribing what they hope to contribute to the search process. The dean consults the department heads of Business Affairs, Human Resources, Registrar, Admissions, and the Library; and faculty from Math, Science, and Business. She asks the math faculty representative to chair the committee, and together they select the other members. The dean sends appointment letters to each.

3. **Collect Resources**

   The Educause organization has a national clearinghouse to advertise for IT directors. There are some other technical journals and trade publications like Compuworld that accept advertising. The college will pay for these ads as well as travel and housing expenses to bring three candidates to campus for interviews. The Business Affairs Office offers their conference room for meetings and the services of their secretary to take minutes.

4. **Build the Team**

   At the first team meeting the members share their goals and accept the following roles and tasks which they all agree will accomplish the search committee's mission. Peter represents the math department. He will act as team leader. He facilitates team meetings and manages time resources. He checks to make sure that each team member accomplishes his or her job, and he helps the team stay focused on its objectives. Debby is the Human Resources Director and Researcher. She agrees to schedule candidates' interviews, and to arrange their travel and lodging. She identifies the references provided on each candidate's application, and sets up phone contacts with them. She also arranges phone interviews with each candidate, and discusses the salary and benefits packages with them. Mary, the Admissions Director, ensures that the candidates are committed to the support of student recruitment. She also coordinates campus tours and student lunches with the on-campus interviews. Alice, the Registrar, makes sure that the candidates are aware of the difficulties presented by in-house registration software and the lack of a system of computerized class scheduling. She also informs the candidates of the IT concerns of the administrative and reports their responses back to the team. Jill, represents the business department, and acts as the team's reflector. She assesses the process of the team, offering regular feedback about the team's performance, including their strengths, areas in need of improvement, and insights. She also serves as mediator to help resolve conflicts that arise among team members. Les, the Business Affairs Manager, assesses the candidates' fiscal knowledge and ability to work with Financial Aid as well as their commitment to include business functions, especially billing and payroll, into an integrated networked IT system. John, the Development Office Representative, observes the candidates during their on-site interview visits, watching how they deal with college personnel who have little IT savvy but significant IT needs. He is particularly interested in the candidates' creativity in problem solving. Dick represents the science department faculty. He as-sesses the candidates' level of commitment to working towards IT literacy among students, and their interest in utilizing work study students in the IT department. Dick also constructs an efficient process for narrowing the candidates.

5. **Create and Implement the Plan**

   The team meets and, after brainstorming goals and objectives, agrees on several project goals, and objectives having to do with their overall work process. Their goals are to select the three best candidates to bring to campus for interviews, to choose the best of the three to recommend to the Academic Dean, and to complete this process within two months. They agree on a project implementation plan. They begin by reading the written applications and rejecting the candidates who are clearly unsuitable. They interview each remaining candidate by phone with at least two committee members participating in each call. They agree to use Dick's plan for narrowing the pool of candidates. They check the references of those candidates who made the cut, and, if they still have more than three, select the best three for on-campus interviews. Debbie arranges travel and lodging for each finalist, and sets up a full-day interview schedule span-ning a two-week period, during which all constituencies will be included in the interview process. They schedule a final meeting to identify the best candidate and prepare a report for the dean, followed by a ca-tered lunch to celebrate a job well done.

6. **Assess Performance**

   After the application deadline, the team meets weekly to monitor progress on the project as well as the team's process. At the first meeting they eliminate five candidates who clearly do not have the qualifications for the job. The team completes the phone interviews in record time. By the second meeting they are ready to apply Dick's weighted voting process to the remaining candidates. There is a clear separation between the top five candidates and the others. Debby is swamped trying to check references for these five.

7. **Modify the Plan**

   Peter asks different members of the team to call the references, three members to each call. Also, a different group from the committee talks to each of the remaining candidates until each member has talked to each candidate. Even though this takes an additional two weeks, the search process is still on schedule. After all of the interviews have taken place, the committee is able to eliminate two candidates from consid-eration and everyone believes that the decision process has been fair.

8. **Provide Closure**

   The on-campus interviews are very revealing. In the opinion of all participating constituencies one candidate is clearly superior (Debby gathers this information using a standard questionnaire to solicit feedback from everyone involved). The committee decides that if the dean rejects this choice or if the desired candidate turns down the offer, the search should be reopened. After completing the report to the dean well within the two-month time frame, the committee celebrates its work with catered lunch, and then disbands. Fortunately, the dean agrees with the committee's choice and the candidate accepts the position and does an outstanding job for the college for the next ten years.

Concluding Thoughts

Teamwork is a process that challenges each team member to accept accountability for accomplishing the team's goals and for actively contributing his or her utmost to enhance team synergy; potential team members should not accept membership on a team if they cannot make this commitment. This methodology provides a blueprint for bringing every team performance to the highest level so that participation becomes a growth experience for all. It is important to remember that, in many cases, team performance will be degraded if team members focus only on the product the team is expected to produce without paying attention to the process of team formation, interaction, and closure. Try implementing this methodology during your next teamwork experience. While your teammates may be skeptical initially, they will likely appreciate the improved teamwork that this structure will produce.

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3.4.4 Team Reflection

by Patricia Hare (Dean of Developmental Programs, Brevard Community College)

To attain optimum productivity in team projects and cooperative learning situations, it is critical that team members spend some portion of their time thinking critically about the effectiveness of their work as a team. *Team reflection* is a process in which team members bring closure to their work or learning experience, and focus on ways to increase future learning and performance. Ideally this should use no more than 5% of a group's actual performance time. Ideally team reflection uses an assessment-oriented approach, analyzing personal and team happenings against important criteria, and producing action plans that can add value to future performances.

Nature of Reflective Practice

What separates humans from animals is our ability to examine our world carefully, to think about our surroundings, and to think about our own thinking. Thinking about what we were thinking, doing, or feeling is known as *critical thinking* or *reflection* (Chaffee, 2004). Experts tell us that when we reflect, we must allow space (with no distractions), silence, and time to ponder and to self-assess (Ferrett, 2006). Reflection is a cornerstone of purposeful learning and of critical thought.

Donald Schön distinguishes between two different types of reflection: reflection-in-action and reflection-on-action. *Reflection-in-action* is "thinking on our feet." We observe our experience, paying attention to what might be unfolding, connecting with our feelings, and building new understandings to inform our actions in that experience. *Reflection-on-action* involves thinking about our experience after it has happened, to think about why we acted as we did during the experience, to consider what was happening individually or in a group, and to explore circumstances that might have been present.

Reflective practice, whether it is in action or on action, is a habit, structure, or routine for examining individual and group experiences. It can vary in depth, frequency, and length depending on its purpose (Amulya). Reflective practice can be based on finding solutions (***3.3.4 Problem-Based Learning***), habitually journaling personal experiences (***4.2.3 Personal Development Methodology***), or making deliberate improvements in quality (***4.1.4 Assessment Methodology***).

Role for Assessment

When one practices reflection with a mindset toward assessment, one focuses on helping performers improve the quality of their future performances rather than simply analyzing and evaluating past events (***4.1.2 Distinctions Between Assessment and Evaluation***). Assessment is assessee-centered and is guided by appropriate performance criteria (***4.1.7 Writing Performance Criteria for Individuals and Teams***). For the assessment to be effective, the assessor and the assessee must trust and respect each other, and the assessee must be prepared to act on the assessment feedback (***4.1.8 Issues in Choosing Performance Criteria***). Models such as the ***SII Method for Assessment Reporting (4.1.9)*** provide a structure for identifying strengths in performance, including explanations for why they were strengths; for prioritizing improvements, including descriptions of how they might be implemented; and for generating insights about knowledge construction, problem solving, or personal development that have value in other contexts. Formal aids such as a reflection journal, periodic reflector reports, and team worksheets can recover important data associated with an individual or team performance that makes assessment feedback more specific and therefore more useful (Apple, 2000).

Team reflection is an excellent process to start developing team assessment skills. Use of peer reporting leads to dialogue between peers and others involved in the learning process. Each member takes a turn recounting a key event, accepting feedback and analyzing it, making assumptions and connections, and formulating questions that emerge in the process. This practice allows the group to explore assumptions and connections across multiple perspectives. One advantage of team reflection is that reflections emerge from collective work that is frequently connected to or aligned with team values. Based on what the team learns through reflective thinking and sharing, the team can assess whether they have met their own performance criteria and can generate action plans to improve future performances.

Team-based reflection forces students or team members to think at higher levels in Bloom's taxonomy (***2.2.1 Bloom's Taxonomy—Expanding its Meaning***). Reflective practice is enhanced by active listening, questioning, discussing, and storytelling. Team reflection that results in high-quality assessment feedback can be promoted by assigning and using the role of team reflector (***3.4.2***

Table 1 **Criteria for an Oral Reflector's Report**

The report should • Be loud and clear enough for all to hear • Be concluded within 30 seconds (unless specific otherwise) • Identify one strength of the team's performance and explain why it is a strength • Identify one area for improvement on which the team can focus, and explain how the team can make this improvement • Provide one insight gained about the learning process, and explain the significance of the insight

Table 2 **Criteria for a Written Reflector's Report**

The report should • Be concise • Prioritize information • Relate to the focus area of performance • Refer to key skills used by the team • Address affective issues • Be clear • Be accurate • Cite specific examples to support assessment results • Provide supporting documentation in the *Learning Assessment Journal*

Designing Teams and Assigning Roles). The reflector should keep a journal in which to record team strengths, improvements, and insights. This person should report his or her findings in a positive and constructive manner (reflection-on-action), and also intervene during teamwork sessions with suggestions and strategies for improving the teams' processes (reflection-in-action). The reflector role should be rotated among team members.

Tools for Team Reflection

A number of tools for stimulating team reflection are available. One tool is the reflector's journal mentioned above. Entries are made in real time and are grounded in the knowledge gained through the experience. The *Learning Assessment Journal* contains reflector report forms and weekly reflector report forms which provide excellent prompts for reflection-in-action and reflection-on-action (Apple, 2000). Findings can be summarized and acknowledged in two ways: in oral reflectors' reports and in written reflectors' reports. Criteria for these reports are given in Tables 1 and 2.

Reflective journaling can be used in online discussions about an event or an experience that is shared by the online team. Members engage in discussions, reflecting on what they have discovered in the experience or the event. Problem-based reflective practices and assessment can also be conducted online, with reflections written in discussion boards. Members can then assess what they have learned during these sessions.

Concluding Thoughts

Reflective practices can add significant value to cooperative learning as well as student and faculty projects (Rodrique-Dehmer, 2007). Implementing reflective practices in a team environment will certainly take more time initially. However, faculty who make the commitment to use reflection on a formal and regular basis, both in their classes and in their committee work, find that the benefits of team learning, productivity, and participant satisfaction significantly outweigh the initial time investment.

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