**BESTEAMS Advanced Personal Knowledge Module**

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BESTEAMS Module Implementation Plan (MIP)
Advanced Level Personal Knowledge Module

Topic: Leadership in Teams—Maximizing Success

I. Introduction/Motivation for Module Instructor

This is one of three advanced level BESTEAMS teamwork training modules for engineering students and faculty members. The three modules address personal knowledge, interpersonal effectiveness, and project management in a team setting.

The concept of “leader” is more complicated than many initially realize. The qualities and duties of effective team leaders are not universally agreed upon (see e.g., Bowman & Farr, 2000; Kasamoto, 2000; Ivey, 2002). Also, the ways a leader carries out tasks may remain contentious (Duffield & McCuen, 2000). The purpose of this module is to build upon previous Personal Knowledge lessons from the Introductory material, which was based on Kolb’s Learning Style Inventory (LSI) to identify learning style preferences, and the Intermediate module, which incorporated the Felder-Silverman Index of Learning Styles, designed specifically for those in engineering fields. This Advanced module maintains that teaching students to recognize their own leadership qualities will strengthen the team process and its eventual outcome.

Why study leadership? First, for students, this material introduces key concepts, including the notion that there are not “born leaders”; rather, being a skilled leader involves developing specific abilities that will benefit the team and its project (Mawson, 2001). Second, if leadership is conceived as a skill-set instead of a designated role, multiple individuals may participate in leadership activities throughout the project’s duration (Northouse, 2004). Third, for instructors, teaching from this perspective may alter the way in which responsibility is evaluated on teams. Instructors may also witness changing patterns of participation among the teams, as individuals lead based on team needs rather than arbitrary assignment or strong personality.

Women and minorities specifically benefit from this broader definition of leadership. Northouse (2004) provides an excellent overview of the literature available on women leaders, outlining many of the traditional arguments for why there are so few, including a narrow career pipeline, a lack of management experience, and “unsuitability for leadership.” After refuting these reasons, he examines the research and divides the common barriers to women’s advancement into three categories: organizational barriers, interpersonal barriers, and personal barriers. Subsequently, this BESTEAMS module on leadership addresses all of these obstructions.

Expanding traditional notions of leadership will better serve minority students as well. Wankat and Oreovicz (1993) cite literature indicating that cooperative groups increase minority retention, and minority students in leadership positions are much more likely to continue to graduate school. Sharing the leadership duties will also prevent the majority students from over-dominating the project team (Wankat, 2002). Incorporating these values into the engineering classroom will strengthen the learning experience for all students.

Expected Outcomes of the Module

As a result of implementing this module, it is expected that students will experience multiple positive outcomes that will enhance their personal knowledge, with consequent improvement of their team skills.
Module Part I (slides 1-21)
Students will:
• Gain insight into methods that facilitate the development of individual leadership skills
• Gain insight into how teams become more productive through effective leadership designed to ensure project completion
• Gain insight into transformational leadership, which encourages leaders to work collaboratively with team members and share the role of leader as necessary

Module Part II (slides 22-26)
Students will:
• Gain insight into utilizing leadership skills and leadership style perspectives
• Gain insight into applying notions of leadership in a real-life setting through practicing a case study.

II. Delivery Plan Part A: 50 Minute Class Option
A. Introduce the module and objectives of the lesson (slides 1-2). Assimilators appreciate this section, for they prefer to be clear about the long-term value of what they are learning.

B. Ask focusing questions of the class (slide 3). These prompts connect students’ prior experiences to the material being introduced. An attempt should be made by the instructor to link this material to the information previously covered in the Introductory and Interpersonal modules on Kolb’s Learning Style Inventory and the Felder-Silverman Index of Learning Styles. Divergers will appreciate the opportunity to integrate experience with the self.

C. Define leadership (slides 4-5). Outlining the technical definition of leadership is an important foundation of this module. There are numerous definitions of leadership circulated today; providing a common framework allows everyone to begin the module on the same footing. The slides provided are designed to demonstrate both the long-standing interest in understanding leadership as well as the variability in its conceptualization. Leadership may take many different faces, all at the same time.

D. Brainstorming activity (slide 6). This activity encourages students to act as experts on leaders, by asking them to integrate their own experiences with the theory underlying the module. Divergers will find this activity appealing, for brainstorming allows them to see the problem from many perspectives. Instructors are reminded that the majority of engineering students are Convergers, who may strain against the breadth of this activity as they attempt to find the one “right answer”.

E. Lecture on leadership (slides 7-18). In this section, the instructor takes students through material on how leaders influence effective teams and how to recognize good leadership. The underlying message is that by teaching students what makes good leaders, they will be able to incorporate this information into their team skills repertoire. Assimilators will particularly like this material, for they are most comfortable learning when they have been introduced to expert opinion and are able to think through ideas.

1. Team excellence (slide 7). This slide begins to make explicit connections between team excellence and good leadership. The instructor should note that
the individual is not emphasized in this section; rather, the characteristics of effective teams necessarily include behaviors that exist in capable leaders.

2. Leadership responsibilities (slide 8). Before students can be expected to demonstrate qualities associated with talented leaders, they must first learn how a leader is expected to behave. This slide outlines common leadership responsibilities. If desired, the instructor may initiate this section by requesting student participation, asking: “what are common leadership responsibilities?” Accommodators would especially like this option, for they tend to dislike long lectures and teacher-oriented classrooms.

3. Demonstrating good leadership (slides 9-15). These slides outline important methods for determining “good leadership.” They are broken into three categories, and identify different ways students (and instructors!) may recognize effective leaders. The final slides in this section offer an important distinction between task behaviors, where the focus is on production, and relationship tasks, where the focus is on the people in the team. Various combinations of these behaviors are presented to illustrate alternate leadership styles.

4. Transformational leadership (slides 16-19). The concept of transformational leadership was developed in the 1970s by James McGregor Burns. It is particularly relevant to the discussion of leadership in teams because of its shift from traditional “take charge” leadership to collaborative problem solving for the good of the group. These slides explain the role of transformational leaders on teams as well as their long-term benefits. For more information, instructors should see the resource list at the end of this module implementation plan.

5. Taking the skills inventory (slide 20). Northouse (2004) offers a number of instruments designed to help learners understand leadership. BESTEAMS has chosen to incorporate his skills inventory into this module because of its ease of application as well as the context in which it rests. Essentially, the skills approach assumes that individuals can and should learn a particular skill-set that will allow them to be effective leaders when necessary. The instrument consists of 18 questions which are answered with the ranking 1 through 5, where 1 is “not true” and 5 is “very true.” Once completed, the scores are divided into technical skill, human skill, and conceptual skill. To see this instrument, see the back of this section.

F. Conclusion (slide 21). This slide depicts some of the key learning points that students should derive from this module.

III. Teaching to the Learning Styles

A. Quadrant 1 (Divergers): Driven to learn by asking the question “why?” (In this case, “why is this information important to me?”)

Focusing questions: When students are asked the questions on slide 3, this demonstrates that the instructor is sensitive to them, a characteristic important for the comfort of Divergers. By asking students to share their own ideas, students take responsibility for some of the learning that will ensue.
Brainstorming: Divergers prefer to integrate all experiences and appreciate the opportunity to be innovative. Subsequently, brainstorming appeals to them, because it helps them better understand their classmates through personal involvement.

B. Quadrant 2 (Assimilators): Driven to learn by asking the question “what?” (In this case, “what is transformational leadership?”)

Defining leadership: Assimilators’ preferences are taken into account by creating a common definition for a term that will be used throughout the class: leadership. These learners appreciate sequential information and working with detail.

Lecture on leadership: This lecture is useful to Assimilators on a number of levels, for it provides expert opinion as well as allows for solo thinking. Generally, Assimilators dislike working in groups, so tying this information to its value for teamwork should be a primary instructor goal.

C. Quadrant 3 (Convergers): Driven to learn by asking the question “how?” (In this case, “how can this material help me better understand myself or my abilities?”)

Introduce the module and objectives: Because of their rational streak, Convergers generally prefer information that does not spend large amounts of time hashing over theory. Identifying the objectives of the module allows Convergers to understand how theory will be integrated into practice.

D. Quadrant 4 (Accommodators): Driven to learn by asking the question “what if?” (In this case, “what if I used this information about myself to my advantage on my team? What would I do or how would I act differently?”)

Brainstorming: This activity is appealing to Accommodators because of their preference to learn by trial and error, as well as their dislike of teacher-oriented classrooms. They are often the “cheerleaders” of new ideas, and their enthusiasm is an important contribution to the team project.

Asking for common leadership responsibilities: The Accommodator will prefer any activity that removes attention from the instructor and instead asks for student participation. Specifically, this activity allows students to learn new ideas for themselves, which is ideal for learners in this quadrant.

IV. Delivery Plan B: 90 Minute Class Option

A. Present additional material on leadership (slide 23). There are numerous instruments available to assist individuals in understanding their leadership abilities. Hard copies of some of them are available at the end of this section. For more information, Northouse (2004) offers a detailed explanation of these instruments. The instructor may point students in this direction.

B. Case study: Leadership in teams (slide 24). The provided case study allows students to act as the experts in evaluating leadership style. Practicing the theory addressed in the previous lecture is important to fully understanding the material covered and helps to ensure that students will adopt the behaviors addressed in the module. Likewise, all
learning styles will appreciate aspects of the case study, making it an excellent exercise for the entire class.

C. Summary: The leader in you (slide 25). This summary slide offers final take-away points for students to consider.

V. Class Adaptation Strategies

A. Size: In large classes and sometimes in smaller ones, depending on instructor preference, the students should be divided into their project teams for the brainstorming exercise. If teams have not been created yet, the instructor may also ask for volunteers to hold a brainstorming session at the front of the class, so their peers may see the types of answers that arise.

B. Content: Whenever possible, course content should be integrated into the lesson. In this case, asking students to work within their course project teams, as well as adopting leadership practices within these teams, is an important step. Asking students to reflect on how different leadership styles will affect their project outcomes may help jumpstart their thinking.

C. Classroom culture: Depending on the classroom culture, this module may be particularly helpful. A good leader has traditionally been perceived as the person who was able to “take charge” of a task. However, in classroom environments where there may be minority populations (e.g., English as a Second Language speakers, ethnic minorities, and women), is it possible that the classroom culture does not permit for these individuals to “take charge” comfortably. This advanced lesson on leadership is designed to introduce new leadership frameworks that ensure everyone’s strengths are being incorporated into the successful final project.

VI. Follow-up Materials

A. Homework: If time is short, students may be assigned the above case study (“Leadership in Teams”) as homework, and asked to answer the questions on the slide (slide 23) in a short essay.

B. Report Writing: In the final team report, you may ask students to write, either individually or collectively, the role of leadership in their team project. This question encourages students to look at their learning after its completion, and analyze what occurred in their team to hinder and/or help it.

C. Exam or Quiz Item: Ask the students to identify in a short answer their leadership abilities, and the type of task/relationship styles they prefer.

VII. References


