Student Leadership Institute – Challenging Students to Solve Real World Problems

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ABSTRACT

The University of Iowa's College of Engineering, in collaboration with one of its most distinguished alumni, has developed an engaging Student Leadership Institute for a diverse mix of our high potential undergraduate students. The central focus of the institute is to help students develop greater self-awareness, self-management, social awareness and relationship management (closely aligned with Daniel Goleman's competencies of leadership). Students experience both self-awareness and social awareness through development exercises and through participation in group problem solving exercises. Guest Leaders share multi-faceted case studies from personal experience and challenge the student groups to determine how they would resolve the case study problems.

After each event, students fill out a survey to provide feedback that is used to make continual improvements to the institute experience. The success of the institute is perhaps best summarized by one of the student's comments, "I learned that leadership is something more than just leading. It's also encouraging others to reach their full potential."

Background:

The first student leadership institute was conducted in October of 1999 at Gary Seamans' "cabin" in Galena, IL with a group of eleven engineering students and five business students. Three engineering alumni joined Gary Seamans (UI College of Engineering alumnus) as Guest Leaders, presenting leadership information on self and group motivation, professional ethics and diversity in the workplace. This first event took place during a Friday afternoon culminating with an informal meal before traveling back to Iowa City.

Since then, the event has grown in scope, being offered bi-annually to approximately 30 students from engineering, business and liberal arts and sciences, as well as increasing in length to a two-day event. As the Institute has evolved, it has become very closely aligned with Daniel Goleman's 4 Competencies of Leadership: Self-awareness, Self-management, Social awareness and Relationship management. Leaders' emotional states and actions affect how the people they lead will feel and therefore perform. How well leaders manage their own moods affect everyone else's moods, thus becoming not just a private matter, but a factor in how well a business will do. The Institute focuses specifically on the competencies of self-awareness and social awareness. Not only do students learn more about themselves and how their personality influences actions and choices, but they are also introduced to strategies for approaching other persons' preferences to achieve the highest level of interaction.

Engineering undergraduate students (sophomores, juniors or seniors) are nominated by the department chairs of each of the six majors based on their demonstrated leadership skills or their strong potential for developing as a leader. Six male and six female students, two representing each major are selected from the pool of nominees to participate. Students from the Henry B. Tippie College of Business and the College of Liberal Arts and Sciences at Iowa are also invited to participate in the program.

Objectives:

Increase each student's self-awareness

Expose students to the value of awareness of others' personality preferences and values

Expose students to real world challenges and dilemmas

Provide opportunities to communicate effectively with a diverse group

Program structure:

The Institute is a two-day event that is held at an off-campus location. Students complete an on-line Personality Profiler before attending the event. During a session in the first afternoon, students learn about their own preferences and values and how similar types share some predictable traits. Students have an opportunity to experience these concepts further on the following day when groups are specifically selected to allow for like-minded and diverse grouping experience.

Our Guest Leaders play a very important role on the second day of the event. Prior to the event, each leader is asked to develop a multi-faceted case study from their own personal experience to share with the students. Leaders are asked to spend 10-15 minutes setting up the situation, and then the students are divided into four groups and given 15 minutes to develop a solution. After approximately fifteen minutes, the large group is reconvened and a spokesperson from each group shares their groups' solution. Finally, the Guest Leader shares how he or she actually resolved the case to bring closure. Typically, two of these case studies are completed in the morning with a break for lunch and then two more cases are presented in the afternoon. After each case study, a few minutes are used to discuss the group dynamics. Some exercises are designed with everyone being of similar personality type and some exercises are designed with participants that have diverse personality types. Using this process, students have the opportunity to not only be aware of how they manage themselves in a group, but also how they can influence others in the group.

Example case study:

Guest Leaders present case studies to the students and the students figure out ways to solve the problem in the case study. The case studies cover a wide range of topics from environmental problems, to financial crises, to social or government problems, to product liability problems, to integrity or personal character issues, or to engineering design concerns. The following brief summary is typical of the kind of problems that the student groups tackle.

A large-size corporation is faced major challenges integrating their staff, accounting systems, projects and various corporate cultures that have resulted from growth and merger changes. The situation is that a manager who has just joined one of the offices of the corporation has found some problems in one of the legacy project that his organization inherited. The project involved a hydrology study on the Preston Canyon near Alpine, UT. A recent fire had destroyed much of the vegetation at the top of the canyon. During the spring snowmelt, the canyon

experienced debris flowing over roadways and into basements of very expensive homes in the area. The completed study showed the need for a debris flow basin to mitigate the situation. Over time, three project managers had worked on the problem and the current project manager, "Bob," had contacted the client to propose an alternative approach that would involve constructing a dam. The client agreed to pay $10,000 to develop the design, but was told that there would be no change to the construction part of the project. Later, Bob discovered that he needed to obtain a special permit and, months later, found out that the design would have to meet rather extensive criteria in order to be approved. Implementation of the criteria would result in design changes with a dam much larger than was initially envisioned. Bob received a terse e-mail from the client saying they had yet to see any plans and were concerned about meeting the construction schedule in time for the expected snowmelt. Bob finally shared the e-mail with the new manager, who had not yet been told about any of the details. By now the project was over budget and not meeting scheduled deadlines. The student groups were asked to determine how the new manager should handle the situation that had developed.

Program assessment:

Before concluding the event, students and leaders are asked to share something they will take away from this event. Here are comments from some of the students:

"The key to motivating others is getting them past their fear of failure," one student remarked. "The best leaders have an exceptional ability to listen to people," added another. And perhaps the best summary to date was this: "I learned that leadership is something more than just leading. It's also encouraging others to reach their full potential."

Additionally, after each event, students are mailed a survey and asked for their feedback on the event. The feedback has been responsible for the expansion of the program from a one-afternoon event, to an overnight and a full day, to the current two-day event.

Benefits:

For the UI Colleges that participate, the Institute does several things:

    It exposes our students to proven ideas, successes, and failures of experienced business leaders.

    It exposes our alumni and friends of the College to student perceptions and ideas, as well as to the level of their leadership abilities already.

It engages alumni and friends in another extension of their commitment to the College -- by giving their precious time, talent, and wisdom that are almost immeasurable.

It builds a stronger bond between both the students and the administrators of the various colleges.

Summary:

The Student Leadership Institute provides an environment for students to learn more about themselves and about others. They learn how to work effectively as part of a diverse team to solve real world problems. They get exposed to high-level leaders with various business, government and industrial backgrounds. And, they have fun.