

## **How to Select an ACE Team Project - Option 1: Student Selected**

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**Educational Goals:** Team building / verbal communication skills.

### For Students

- Encourages "buy-in" and a sense of ownership of the project. As a result the students and mentors develop more interest
- Introduces team building skills
- Stimulates creative thinking,
- Stimulates articulation/ sketching of ideas
- Practice and sharpens communication and debating skills
- Simulates real-life decision-making process
- Encourages and builds research and problem-solving skills

### For Mentors

- Encourage discussion management (example: time, scope and scale management)
- Emphasizes importance of consensus building
- Ice- breaker (Introduces teammates to one another)
- Identify student interests and skill sets

*Caveat: Using this approach, it may take longer for a project to be selected because the pros and cons of each project must be identified, presented, and discussed. Example, dissension and discussion may lead to longer decision-making process.*

**Time:** 3 mentoring sessions

**Materials:** Writing board chalk, marker board), Paper, Pencil, Pen

**Additional Resources:** None

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**Session 1: Team Building Session**                      **Duration:** 1 meeting:

- I. Kickoff Team's project.
- II. Give an overview of the process of the project
- III. Briefly describe some past projects
- IV. Ask mentors and students to come up with project ideas for our next session.
- V. Ask mentors and students to be prepared to present their ideas for the next session and to be able to identify the possible pros and cons of their ideas.
- VI. Highlight and/or distribute some resources and references for ideas such as newspapers, books, Internet, professional magazines.

**Session 2 – Brainstorming/ Project Selection/ Voting Session**    **Duration:** 1 meeting:

- I. Ask everyone to present ideas in order (around the table, alphabetically, etc.)  
*Caveat: Some people will present "concepts" rather than specific type of a project. Others may not have any supporting material stemming from lack of research.*
- II. Record all ideas on the blackboard, listing the Pros and Cons of each idea.
- III. Categorize ideas (examples: community centers, cultural centers, commercial buildings, transportation facilities). Some get deleted or merged if similar in nature, etc.

**Variations:**

**Variation A:** Each student and mentor is given one vote. Reduce the # of possible projects on the list by voting several times to eliminate ideas. For example, first round of voting reduces the list to 20 ideas; the second round of voting reduces the list to 10, then 5, until one is left.

*Caveat: Usually this takes most of that particular session's time period.*

**Variation B:** Each student is given two votes. Each mentor is given one vote. Based on the Pros and Cons listed on the blackboard and personal preferences, all of the ideas are put up for voting in a single round of voting. The project with the most votes becomes the yearlong project. The purpose of two votes is that some students are torn between two projects that they like: these are the “swing voters”. With two points, they may choose to put both points toward one project or spread the points across two projects. Mentors are given only one vote because the importance of student “buy-in” is stressed here. The voting can be done with secret ballots (this way no one influences one another during the last minute and there is no “group think” or it can be done publicly to give the proposer a last chance to strengthen the pros of the proposed project.

*Caveat: Not all of the ideas are as fully discussed as in Team #4 voting method. May initially alienate the students who did not vote for the project.*

**Session 3: Design Committee Selection:**                      **Duration:** 1 meeting:

- I. Based on the "type" of project selected and depending on the number of team members, formulate specialized design committees. This exercise simulates the breakdown of the trades to the various disciplines and specialty groups

Project and Specialized Design Committees Example:

*Multi-use Skyscraper Building Specialized Design Committee:*

1. Site Selection / Civil Design Committee (2 -3 students 1- 2 Mentors)
2. Structural Design Committee (2 -3 students 1- 2 Mentors)
3. Mechanical Design Committee (2 -3 students 1- 2 Mentors)
4. Electrical Design Committee (2 -3 students 1- 2 Mentors)
5. Architectural / Interior Design Committee (2 -3 students 1- 2 Mentors)

- II. Solicit student volunteers first to staff these committees.  
III. Assign remaining students by interest or skill set.

*Caveat: Sometimes the mentors will need to assign some students to balance the number of participants in each committee. Some students will want to switch design committees in future sessions as skill sets and interests are identified further.*