

## Training Your Team

**A**n important benefit of Odyssey of the Mind is that students learn to work with others. Oftentimes, to encourage creativity, talented individuals are given free reign to “do their own thing.” They may be accustomed to having their own ideas recognized, but now they have the ideas of their team members to consider as well. It is natural for new teams to take time developing into a cohesive group. You may have to help that process along. Ultimately, you’ll find that team members will form life-long friendships and develop a deep respect for one another’s talents.

### Teaching Teamwork

It is the coach’s responsibility to provide stability and to ensure that each team member has equal input to the problem solution. Everyone’s opinion counts, so avoid allowing one or two team members to “overpower” a meeting. If this happens, you may have to be the one to draw out the ideas of the quieter students in the group. You may find that team members will not agree on one solution and will work against each other at first. You may have to be the one to initiate the process of reaching a consensus. In time, the lessons you provide will become natural behavior. Here are suggestions to help ensure fairness and equal input for all team members:

- Rotate team captains and have them take turns conducting the meetings.
- Have members come to an agreement on issues that are impeding progress. They should do this by listing the pros and cons of the issue so they see both sides of the argument. If a consensus cannot be reached, have the members vote by secret ballot.
- Schedule meetings where all team members work on only one aspect of the solution. This way, all team members will contribute to many aspects of the solution to some degree.
- Form committees with each team member in charge of one group responsible for a team-determined contribution (e.g., artwork, costumes). This will help develop leadership skills.

### Teaching Creativity

Coaches must prepare teams for three phases of competition: Long-Term, Style, and Spontaneous. (More about these later.) Many teams will work on their own to develop their long-term problem solution but may need guidance in building creative-thinking skills or practicing solving spontaneous problems.

To prepare team members for the mental rigors of competition, training should include exercises based on basic creativity principles. The coach can help improve a team’s divergent thinking ability through brainstorming sessions and exercises that involve the restatement of a problem, functional fixedness, removing mind-sets, and role-playing. These will help build self-confidence and divergent thinking ability.

In addition to these types of exercises, the coach should teach discipline, and management and organizational skills to the team members. Oftentimes, generating ideas to solve a problem is easy, but selecting and executing a solution is much more difficult. Following are exercises to help build creative-thinking skills.

## **Brainstorming**

Many people, when trying to solve a problem, will develop a mental block. This may be a result of “thinking too hard.” Then, later, without conscious effort, a solution will come to mind. One way to overcome a mental block in the problem-solving process is to hold a brainstorming session.

The purpose of brainstorming is to generate as many ideas as possible. The more ideas a team has to choose from, the greater the chances are of finding one that is successful. Ideas are generated rapidly, which prevents individuals from dwelling on why an idea might not work. Evaluation of the ideas comes at a later stage of solution development. Coaches should teach students how to hold brainstorming sessions, and they may serve as moderators of the sessions. Following are some guidelines to follow for brainstorming:

- (1) **Allow no criticism.** Some people become self-conscious when they feel they may be criticized, which inhibits them from offering ideas. For this reason, it is important to not judge ideas at this time. Present examples of “wild ideas” that were successful such as walking on the moon.
- (2) **Encourage outrageous ideas.** This often results in team members going beyond the normal thought process.
- (3) **Encourage piggybacking of other ideas.** One idea often stimulates a better one.
- (4) **Evaluate the ideas** at the end of the session or after a day or two. Eliminate those that are not feasible.

Teach teams the difference between critiquing — offering constructive criticism — and criticizing, which tends to be negative. Stress that team members are to critique each other’s ideas in

a positive manner. Rather than simply saying they don't like an idea, ask them to state why and offer ways to improve on the idea. Most important, let the team know that while brainstorming is meant to be productive, it should be fun, too. Remind them that decisions made at this time are not always final; ideation is an ongoing process.

Besides having the coach as moderator, each brainstorming group should select a leader to direct the discussion. If a leveling off of ideas occurs, the team leader for that session should encourage new ideas by asking “what if” type questions such as,

- “By altering the materials how could we . . .?”
- “What might happen if we changed its shape?”
- “How could we adapt it to make it move faster?”
- “How can we make it smaller, lighter, etc.?”

Have one team member serve as secretary of the session and record all ideas and useful comments. Team members should take turns in these roles.

### **Restatement of the problem**

How a problem is stated often influences how a problem is solved. Essentially, there are two types of problems: analytic and divergent. An analytic problem is convergent in nature; that is, it has a single correct answer. Divergent problems allow for many possible solutions.

Many problems can be stated in a way to either encourage or discourage creative responses. A common trait among creative individuals is their ability to redefine a problem without changing its objective. For example, consider the problem, “Design a new toothbrush.” To most people an obvious solution would be an adaptation of a utensil with a handle and fibers at one end. If you restate the problem to “find a better way to clean teeth,” the more creative individuals would go beyond the preconceived idea of the typical toothbrush. A brainstorming session could help in coming up with many different solutions. Coaches should train team members to redefine the problems presented to them, and stimulate and nurture this thinking approach.

Be careful, however, when restating problems and make sure the objective is not changed or reinterpreted. For example, if you ask a team to “Design a baseball glove,” an image, concept or solution that will most often come to mind is a typical fielder's glove, catcher's mitt, or two- or three-fingered glove with a large web. The problem could be restated as, “Think of different ways

to catch a baseball,” which encourages creativity and allows for an array of usable solutions. However, stating the problem as, “Design a new glove,” will result in solutions that do not serve the intended purpose of catching a baseball.

### **Functional fixedness**

Functional fixedness is a mind-set, or the tendency to perceive an object as being able to carry out only the function for which it was designed. The tendency to apply only one function to an object limits the number of possible resources an individual can use when faced with certain tasks. Although not designed for these functions, a toothbrush can be used to clean golf clubs, a coin can be a screwdriver, an old sock can be a rag, or a rubber band can be used as a hair band. Similar to redefining a problem, redefining an item’s function allows individuals to go beyond preconceived notions.

### **Role-playing**

Having students assume different roles or the personae of other characters allows them to go “outside of themselves.” It helps to get them to look at things from different points of view and opens their minds to possibilities other than what they are used to. Having team members act out fictional experiences in a make-believe setting will help them to think more imaginatively. It will also help hone their acting skills and get them to feel more comfortable performing in front of others.

You can set the parameters for what the students will do in their assumed roles, or you can encourage them to improvise. Provide feedback on how they could improve their performance to be more convincing, humorous, dramatic, and so on.

### **Channeling creativity**

It’s not enough to be creative for creativity’s sake. Creative processes should be productive, too. One way to “channel” a team member’s creativity is to pose limitations to the problem. This will stimulate ideas while focusing on the task at hand.

Asking someone to invent “something” is too broad, and may cause an individual to feel overwhelmed. On the other hand, asking someone to design a red ride-on toy fire truck is too restrictive. Taking a middle ground and asking someone to design a pull-toy leaves a great deal of latitude for creative thinking. Including limitations for cost, size and safety will offer further direction and help to keep the ideas practical.

## Putting it all together

Consider the problem, “Design a boat.” This statement inhibits creativity because of preconceived ideas of the characteristics of a common boat. To encourage creativity, you could restate the problem as, “Build a device to transport one person across a pond.” To further encourage creativity, impose certain limitations.

This problem and the following limitations were presented to students at Rowan University in New Jersey in the 1970’s. Below is the solution developed by one group of students. The solution was not successful in that it did not get the individuals across the pond without getting wet, but it certainly was creative. In fact, it was the inspiration for the Odyssey of the Mind Ranatra Fusca Creativity Award. *Ranatra Fusca* is the Latin term for “water strider” and, in Odyssey of the Mind, is synonymous with exceptional creativity.

- (1) No gasoline engines may be used.
- (2) The value of materials used may not exceed \$5.
- (3) The project must be completed within three weeks.
- (4) The device must keep the individual safe and dry.
- (5) The device must navigate over a given course.

