

Effective Coaching Tactics

I. Coaching Styles

A. There are various ways to coach a team. Suggest that coaches record good and bad experiences to help them in following years.

1. The amount of time a coach spends with the team depends on the schedule of the team members as well as that of the coach.
2. One or two hours a week is average, with more time spent during the weeks immediately preceding the first competition.
3. The coach can assign a different aspect to each team member and have them work on their own.

B. What not to do. Here are two extreme coaching techniques, neither of which is recommended:

1. One coach required teams to work before school, after school and every Saturday. This began in September and lasted until April, when the team failed to advance in competition. This deprived the team members of other valuable experiences necessary to growing up. Even when this coach's teams made it to World Finals, the kids missed out on many opportunities in other aspects of their lives.
2. One high school coach would hold an initial meeting for anyone interested in being on a team. He told the students to form the teams themselves, told them their budget, and the date and time that the bus would leave for the first tournament. He did nothing else. Although his teams often made it to World Finals, this is rare and deprives the team of the intangible benefits of having a respected adult acknowledge their hard work.

C. The need for balance and perspective. Coaches are not responsible for solving the problems, so the team must decide how much work and effort they are willing to devote to this. One of the objectives of Odyssey of the Mind is to have students take responsibility for their own successes and failures.

II. Coaching Tips

A. Describe the behavior that is expected of each team member.

1. Good sportsmanship is essential.
2. Students will work on organizational and teamwork skills.
3. They will provide support and encouragement to each other – and even recognize the achievements of their competitors.

B. Emphasize the importance of learning to ask the right questions. A good coach will teach team members to ask the right questions – not just any question, but one that will address a specific problem or condition that needs to be addressed.

C. Get members thinking as a team. Don't allow team members to waste energy by blaming others. The *team* creates its solution; if something goes wrong, it is the *team's* responsibility.

D. The team should have a crisis management plan so it knows what to do when something breaks down. Remember Murphy's Law: "If something can go wrong, it will go wrong."

E. Encourage the less vocal members to participate. They also have important ideas but are reluctant to propose them. Thousands of kids have emerged as stars while beginning as overly quiet. Sometimes getting shy kids to open up is the most difficult yet most rewarding experience a coach will encounter.

F. Encourage team members to develop pride in one another.

G. From time to time, show the team how it has demonstrated a type of knowledge that is taught in school. They will enjoy discovering that their solutions apply practical uses of knowledge. For example, one team built every part of an entire vehicle for the vehicle problem, *Balloonacy Cars*, including its wheels. However, the team-made wheels were not the same diameter. To make them the same size, the team put rubber bands around them. Since no two wheels were the same size, the rubber bands had to be different. That team solved the equation:

$$(\text{diameter of wheel 1} + \text{rubber band A}) = (\text{diameter of wheel 2} + \text{rubber band B}) = (\text{diameter of wheel 3} + \text{rubber band C}) = (\text{diameter of wheel 4} + \text{rubber band D})$$

The results for A, B, C and D provided the size of the rubber bands needed to make all the wheels the same diameter. This creative solution was an application of algebra. By identifying how current schoolwork can be incorporated into the solution, the coach will inspire students to show greater interest in their solution and in their classroom lessons.

H. Coaches should answer a question with a question rather than giving a direct answer. For example, if asked, “Which hat do you like better?” the coach should say something like, “Which one do you think goes best with the theme of the solution?” This encourages the team members to think independently.

I. Coaches should strive to serve as role models for their team members. It is important that they remain optimistic and patient. Henry Ford said that there are no failures, just opportunities. Coaches need to be enthusiastic and open-minded to suggestions. Coaches should strive to make learning fun!

J. Teach teamwork.

1. Assign each team member one aspect of the long-term problem and have that individual become the expert on that aspect and share their knowledge with the rest of the team.
2. Have one member study the problem, one the general rules, one the limitations, one the site setup and the check-in/staging requirements, one the scoring, another the penalties, and then have them work together to combine their knowledge.
3. Make sure everyone contributes equally to the development of the solution.
4. Coaches should encourage team members to look to one another for answers and suggestions. This teaches respect for others.
5. The coach may have to act as facilitator when team members disagree with one another.

III. Building Creative-Thinking Skills

A. Hold brainstorming sessions. Have teams generate as many ideas as possible. You or a team member can facilitate the session and record the ideas. The rules:

1. Allow no criticism.

2. Encourage outrageous ideas.
3. Encourage piggybacking of other ideas.
4. Evaluate the ideas and eliminate those that are not feasible.
5. Teams should know that better ideas often come later. The team should be encouraged to improve and adapt its solution as necessary.
6. The coach cannot tell the team which ideas to pursue.
7. The coach should never express disapproval of ideas except in cases of safety concerns.
8. Ask “what if” questions.

B. Restatement of the problem. Examine the problem and determine what really needs to be done to find an appropriate solution.

1. For example, “Design a new toothbrush” would result in a different solution than “Create a better way to clean teeth.”
2. Setting limitations helps teams to focus on the real issue at hand. “Create a new toy” is too broad” but “Create a new pull toy” provides guidelines.

C. Remove certain mindsets (functional fixedness). Look at objects for more than the function for which they are intended. For example, using a paper towel as a coffee filter.

D. Role-playing. This helps team members go beyond what they are used to and to view situations from different perspectives.

1. Have students act out roles of different characters.
2. Present fictional situations and have them improvise.

The Art of Asking Questions

Coaches need to be aware that the WAY a question is asked may limit the creativity of the answers. Here are some general, all-purpose questions you can use with your team(s):

- Do you think any other team would think of this?
- Can you think of a more creative way to do this?
- What other materials could be used to (create this effect, to make this move, to make it lighter in weight, to make it funnier, etc.)?
- What kinds of things do we need to find out in order to do this?

And now, for some ideas to use when you want to say something you're not allowed to say!

- How else could you...?
- Why did this happen?
- Where could you find out?
- Is this your best...?
- Does this meet the standard?
- Is this job done?
- What do we mean by style?
- What should be done?
- When should it be done?
- Who should do it?
- Can this be tested?
- Can we combine ideas?
- Why is it necessary?
- How else could this be arranged?
- What should come next?
- What makes sense? What makes nonsense?
- What could be said? What could be left unsaid?

Good questioning can really help elevate your team's solution and enjoyment of creative problem solving, without introducing outside assistance. We hope this helps you this year. If you have any tips you've picked up along the way, please pass them along and we'll share them with other coaches.