

Coaching Guidelines Organizational, Administrative Matters

As in teaching, so in coaching, a lot of the work that makes for success takes place when the students are not around. A successful team needs outside support, team building activities that go beyond a weekly practice session. Preparation for these things starts long before the first practice session is called, and it continues throughout the season.

I. Lining up support

- A. Getting support from the principal/superintendent
- B. Parental support (Some coaches actually form a parent booster club)
- C. Departmental support. We need to deal with the tendency in many schools to assign coaching duties to the youngest member of the staff, a person likely to be teaching two remedial courses, two first year algebra courses, and perhaps a geometry course. Meanwhile, the senior people who have "paid their dues" teach the advanced classes, and give nary a thought to getting their top kids onto the team.

At a minimum, the entire department needs to be involved in identifying and recruiting talent.

- D. Enlisting the support of colleagues in other departments
 - 1. One coach who believes the often claimed correlation between music and math regularly meets with a music teacher in the building to get suggestions for team members.
 - 2. One must find ways to deal with coaches, directors of plays, or other colleagues who refuse to let math team members miss one of their practices to go to a math meet.
 - 3. Be sure you cooperate with coaches of other activities (Knowledge Bowl, etc.) in setting your practices

II. Establish, maintain visibility

- A. Meet with a representative from the local newspaper to explain the league, its goals, and to give background on those most likely to be your team leader. Try "backgrounders" before the season starts as well as new releases about both individual and team accomplishments.
- B. In the school: student paper, posters in the halls, announcements of meets on the school-wide PA system, team members wearing team T-shirts on days of meets
- C. With parents via PTA letters

III. Fund raising

- A. Running concession stands at sporting events
- B. Funds available for gifted and talented

Coaching Guidelines Recruiting, Holding Student Participants

We have numerous examples of successful coaches who disavow any responsibility for the success of their teams, claiming that *all they do* is to get the kids together and serve cookies. No one believes them, of course, but there is no doubt a fundamental lesson to be learned. Getting the kids together and making it fun is a big part of successful coaching.

There is a more serious side to be utilized. The skills learned in preparing for mathematics competitions are central to the subject, and learning them gives one a leg up in subsequent high school and college courses. Students should be reminded that they stand to gain a good deal, whether or not they win.

I. Getting kids in the door

- A. Working through the feeder junior high schools; try to get feeder schools to participate in the junior high math league
- B. There is an important role for upper-class students in recruiting. Appoint next year's captain in the spring, with the understanding that recruiting over the summer is part of the job.
- C. The role of food/fun/food/social interaction/food
- D. The athletic teams have student managers; so also should the math team. Duties might include keeping abreast of newly posted items on the League website, scheduling practices, running of practice sheets, ordering team T-shirts, and more
- E. Encouraging one or two kids with potential to be "stars" by pointing them to appropriate summer opportunities, giving them a book of problems to work on, etc
- F. Write letters to parents of kids recommended to you be middle school teachers, colleagues, other students

II. Keeping them involved

- A. Establish awards to be given after each meet for the highest individual score, the most innovative solution the season progresses. They need not be expensive; "This week's cookie winner is . . ."
- B. Season ending social event
- C. Honors assemblies and other all-school events. Look into all-school recognitions policies: lettering policy, Century Club, displays in hallway trophy cases

Coaching Guidelines Developing the Skills of the Participants

This is the part that people think about when they think of coaching, the part that can be a little intimidating, especially to a young teacher not yet attuned to the fact that the very top students may be mentally quicker than the coach. The key to succeeding, however, is not to be quicker, but to know of resources to which to direct the student's attention, and to encourage that student to read what is available.

I. Things every mathlete should know

- A. Various outlines of this sort are available (We could have some on an information table)
- B. The book put together by Highland students could be mentioned
- C. Favorite problems...e.g. surveyor's method, pop can problem, pole problem. Others would probably have their own favorites to contribute.

II. Sources of practice problems

- A. Web sites
 - B. Problem books
 - C. Old league problems are available
- III. The practice Sessions
- A. Alternative styles used around the league
 - B. Looking ahead to events where special training may be necessary
 - C. Finding practice problems
 - D. Deploying people in the team event; how to use your "star."
 - E. Picking Team members, and assigning them to events
- IV. Other ways to help outstanding students develop their talents
- A. Other math competitions (Mankato, Stout, St. Cloud State, Mail-in-Competitions, AMC contests)
 - B. Various summer programs and camps
 - C. ARML training sessions

Coaching Guidelines Using League Resources

No chance is missed in league literature or in oral presentations to say that we believe a program for students with mathematical talent should serve to raise the level of a school's entire mathematics program. In this spirit, we in the Macalester Office stand ready to interact not only with our coaches and the participating students, but with all who are interested in the mathematics program of a school.

- I. Support for coaches
- A. Letters explaining league goals, activities addressed to Principals
 - B. Letters advocating pay for coaches
 - C. Anxious to participate in efforts to attract new teams in an area to join a division; we sometimes set up a dinner meeting in an area to explain league goals and activities to teachers, administrators from prospective new schools
 - D. Summer conferences (of course)
 1. Topical emphasis at the conference is often reflected in the exams for the coming season
 2. An explanation of new methods of test formation from Mike Reiners
- II. Support for teams
- A. Director does some traveling to meet with a team, or several teams from an area.
 - B. Some funds available for season ending recognition event
 - C. Trying to initiate new ways to stimulate competition and sense of success in smaller schools
 1. More awards for Tier II teams at the state tournament
 2. Proposal to post running standings of top 15 Tier II schools on the website.