A Mentor's Guide to the Microsoft Imagine Cup Competition

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The Microsoft Imagine Cup Software Design and Game Design competitions allow student teams of up to four persons to collaborate on a single project. In addition to the four students, the team may also have a mentor to provide guidance as the students work on their project. This guide is intended to be a detailed resource for IC team mentors to help them maximize the potential of the students they are assisting.

What is a mentor?

An Imagine Cup mentor is coach and guide for the students who comprise an Imagine Cup team. A mentor can be:

- Faculty member
- Campus administrator or other staff member
- Graduate student mentoring undergraduate students
- Alumni
- Industry professional
- Business leader
- Microsoft intern (but not a regular employee)

Note: former Imagine Cup judges cannot subsequently serve as a team mentors

What is the mentor's role?

A mentor's most valuable role is in bringing the team members together. A mentor may influence the general direction of a project when the mentor and students meet to discuss progress - but the mentor should not control the group. The mentor should moderate a team's discussion and clarify matters but not lead the discussion.

The mentor may put team members in touch with people that might be able to help and advise them on the project. Mentors can also help students evaluate the choices open to them, and assist in developing a timeline for achieving project goals.

The mentor can also help the team organize tasks and determine roles and responsibilities.

Sometimes problems arise within a group; progress may not be made, personal animosities develop, or a team member may fail to contribute to the team's effort. When this happens, the mentor can perform the valuable task of getting the group running efficiently again.

The team mentor should be a kind of coach for the team, but not the team leader.

Faculty mentors can help market the team's efforts and accomplishments to the larger campus and community, thus increasing the reputation of the department, college and university.

For the Software Design and Game Design competitions, mentors are frequently invited to travel with their finalist teams (at Microsoft's expense) to national and world finals events.

What qualifications should mentors have?

Here are a few things to consider when considering being an Imagine Cup team mentor:

Expertise. Are you experienced in the technical or problem-domain area the students are competing in?

Personality and style. Do you like how the students approach the project? Do you get along with them and respect how they work together and resolve interpersonal issues? Do you feel you can serve as an effective advocate?

Availability. Do you have enough time to meet with the team regularly and respond to their questions in a timely manner?

Location. Do you live or work near enough to your team to provide ongoing support?

As noted above, experience is strongly recommended. A mentor with a good business vision or with great consulting or software development skills will bring the team pragmatic advice based on knowledge and experience.

Can a mentor support more than one team?

Yes. It is not uncommon for a faculty member to mentor several teams.

What rules apply to mentors?

Team mentors must limit their support to general guidance and cannot contribute in any other form that might be considered original authorship or in way that would enable them to claim rights or ownership to the submitted entries. In no instance will work-on-behalf of teams or individuals be allowed.

Tips for Helping an Imagine Cup Team Win

Team Composition

The Imagine Cup competitions have two components; the development of a technology, and the presentation of the technology. While a great presentation can make a disproportionately positive contribution to a project's overall score, a poor presentation can sink an otherwise fabulous (technical) project. Tech students tend to be great at the project development part of the project, but not so good at the presentation part. As a mentor, helping your teams find a great "fourth" member who can focus

on the presentation can make a big difference. Already have four tech students? Then as a minimum try to connect them with someone with presentation expertise early on in the process. Game teams have the same problem when it comes to the creation of art assets for the game. As a mentor, you can leverage your relationships with colleagues in supporting disciplines that can result in effective student collaborations across the campus.

Choosing the project

The two main decisions that students have to make when choosing a project is (1) what technology do they want to learn / or get better at; and (2) what is the problem that they want to solve. No. 1 is the easier of the questions to answer, and as a mentor you can guide that decision by helping student realize what resources and expertise are available to them, and what emerging technology trends will be considered "innovative". No. 2 is a more personal decision based on individual interests and passions, and students should be encouraged to come to that decision on their own. In some cases, a faculty mentor may have a long-term research interest that aligns well with the Imagine Cup theme. Students are allowed to build on prior work, but they need to create the part of the project they are competing with. The rules generally define this by saying that the students need to have ownership rights to the project Intellectual Property.

Time management

The biggest problem that students will face will be time management. The Imagine Cup Software Design and Game Design competitions have two milestones; the first requires the submittal of first draft design documents and is not judged. It exists simply to force students not to wait until the last minute to get started. There is still a tendency of teams to wait until the week before the deadlines and since there is no "grade", quality tends to suffer. The fall off rate from Round One to Round Two is greater than 80 percent due primarily to time management issues. As their mentor you can do a lot to keep them on schedule. If you have integrated the Imagine Cup into the course curriculum, then putting appropriate deliverables milestone into your syllabus is straightforward and will generally result in deadlines not being missed (which disqualifies a student from advancing further). If you are mentoring an out-of-class project, helping student create a project schedule and keeping to it (by you sending e-mail reminders) can one of the most valuable contributions you can make to student success.

The judging rubric: be the expert

Imagine Cup teams tend to focus solely on the part of the project doing the heavy tech action; and due to their lack of experience will neglect the softer parts of the project such as the user interface, work-flow, game play, market research, user testing, etc. The judging rubric is published on the Imagine Cup website, and the better you know what the judges will be considering, the better position you will be in to help guide the team. The rubric is tweaked every year so don't assume you know from last year. If you have any questions about a particular judging category, ask! Most of the US Academic Developer

Evangelism (ADE) team have or will serve as judges or judging facilitators, and your local ADE can get you an official clarification of any item on the rubric.

Get the help of other experts

Despite your skills and experience, a winning team will need guidance in areas for which you are not as familiar. Another huge contribution you can make to your team's success is to connect them with other experts from other domains that are relevant to the project. These experts might have specific target-user knowledge, problem-domain knowledge, hardware knowledge, programming skills, or even presentation expertise. Political image consultants have even been engaged by their mentors to help finalist teams polish their stage presence. Many of these experts can be found in other departments on campus, alumni associations or industry advisory boards. Find them and bring them on to your "coaching staff"!

Mock judging panel

Nothing reveals project and presentation weakness like a mock judging panel. In the real competition finals, a team will present in front of four judges and a judging facilitator. The judges will include industry, academic and Microsoft experts. Using this general format, you can assemble your own judging panel (excluding the Microsoft folks) and get some invaluable feedback for your team before they get in front of the real judges, and unlike the real judges, your panel can give concrete suggestions on how your team can improve their project. One of the most valuable things you can do as an observer of the mock judging is write down every question the judges ask, and then help the students figure out how to make that information clear in their project or presentation. Even prior to Round 2, try to get three or four "experts" to look at the project, ask questions and give feedback.

User testing and feedback

Another group that can provide invaluable insight and feedback are users from your target audience. For example, if you team had written an educational game or application, then finding a teacher or some students to use a beta version of the project can not only get valuable feedback, but can be very convincing to judges that the project does in fact address a particular problem in an effective way.

Video screen capture demos

Round One and Round Two of the Imagine Cup Software Design and Game Design competitions are "online", which means that each "team" submits documents, code and a video that a team of judges view. In the past, the judging rubric has given a ten percent weight for the video. This weighting is deceptively small because in most cases, the code is complete and the judges have no way of seeing the application run properly, so they use the *information* in the video for determining the scores of most of the other parts of the rubric. The worst thing a team can submit in a video is them talking about the project. A great video has a PowerPoint intro that runs like a commercial defining the problem the project attempts to solve. The second part *has* to be a screen capture demo of the application or game.

The demo can be a simulation, but it has to give the viewer a good idea of the user interface and work/game flow.

Best practices for a winning project & presentation

Focus on a single problem
One of the problems we sometimes see are projects where the students try to increase their chances of impressing the judges by attempting to solve too many problems with their project ie: an educational tool that helps solve gender inequality, or a game that teaches both math and environmental stewardship. Winning projects address a single problem with a clear strategy.

Limit the number of presenters
In a 15 or 20 minute presentation, trying to get all four of your team members to present can result in a loss of flow and focus. Generally try to limit the number of presenters to two, and have the other members involved in running the demo on the PC. The place to show the expertise of your entire team is during the Q&A, where you will hopefully get a wide-enough variety of questions so that each team member can have a chance to answer a question.

Know who on the team is the topic expert
Clear, knowledgeable answers during Q&A are very impressive to judges, and having a single subject-matter-expert on the team answer any particular question can help you achieve that goal. Encourage students to decide in advance which team member will answer questions on any particular topic such as:

- Theme, topic, motivations
- Market, competing technologies, environment factors
- Laws, regulatory compliance
- Start-up costs, activities
- Project management, next steps
- User Interface and Graphics
- Program logic
- Information Security, Identity Management

Try to avoid having two members answer a question. There is no need to explain everything the team collectively knows on a subject. If the judges want more information, they will ask a follow-up question. If the team gets asked a question on topic you had not anticipated, then call a two-second huddle at the front of the room to decide who can best answer the question; even if it's "we don't know". Help students practice resisting the urge to butt-in when they think a teammate isn't answering the question fully. It also is a good idea to have a back-up person on a particular topic in case of sudden illness of a team mate (it *does* happen). It *is* okay for a person answering a question to ask a team colleague to add additional details if the person answering feels it will help, but butting-in or jumping onto the end of the answer without being asked is *not* okay.

Engage an industry/domain expert

The further a team progresses in the Imagine Cup rounds, the more important that the project and presentation be informed with real-world insight. Winning teams generally have an industry/domain expert on their coaching staff. Judges will typically be interested in how much you know about the problem domain, and web searches just can't provide teams with the kind of information they need to be credible. Having a real, live expert providing deep insights into the problem domain is almost an essential characteristic of a top team. A domain expert can confirm that the problem the team is trying to solve is real, and that competing solutions do not exist. Likewise, engaging a professional software developer with expertise in the technical domain can be essential to overcoming many "last-mile" development issues, particularly those discovered during user beta testing.

Leverage your Microsoft ADE

Every university in the United States has an assigned Microsoft Academic Developer Evangelist (ADE) responsible for the faculty and student relationship. ADE's cover multiple states, so your campus ADE may not be a local resource, but is available via phone and e-mail, and they can sometimes travel to campus. ADEs can clarify rules and other details about the competition, and can help point your students in the direction of helpful software, training, and people. ADEs are not allowed to serve as a team mentor, but they have every teams' best performance at heart and can provide valuable insights. Don't know who your ADE is? Send an e-mail to me via my blog contact link and I'll introduce you.

Marketing your team's success

One of the real benefits of mentoring an Imagine Cup team is all of the positive PR that the students, the department, the college and the university [and you] receive, particularly if your team gets selected as a finalist. One of goals of the Imagine Cup is to build interest in technology careers with students, and one of the ways we do that is by showcasing the cool things student can do with it. To accomplish this, Microsoft makes a significant investment in PR for the Imagine Cup, and with a little effort, your organization can tie into all the PR and see noticeable benefits locally.

Your marketing efforts can be directed to a variety of audiences including:

- Current and future students
- Alumni
- Potential industry partners
- Potential donors

Some of the channels for reaching your audience include:

- Department e-newsletter
- Department/college web pages
- Student blogs
- Campus and local newspapers

- Campus and local radio& TV
- TV monitor announcements
- Twitter
- Facebook
- LinkedIn

Some of the key messages that drive interest include

- The interesting problem that the students are trying to solve
- Use of cutting-edge tools and technologies
- Challenges and how you overcome them
- Interesting experiences you have "along the way"
- Positive competition results (or results with a positive spin)

Encourage students to talk about their Imagine Cup participation on Twitter and Facebook from Day One. A blog can be a great place for posting pictures and keeping an online diary of the project. Encourage students to review the Student's PR Guide to the Imagine Cup. At appropriate times alert the campus newspapers about potential stories as milestones are reached, and don't hesitate to talk to your colleagues in the Journalism department to develop contacts for community media outlets. Microsoft will be issuing press releases from time to time that you can forward to your contacts. There are also media archives available on the World Wide Imagine Cup site.

Summary

It is very rewarding to watch your students stretch themselves when they accept the challenge of participating in the Imagine Cup. As a mentor, you can have a huge impact on their success by guiding their efforts and helping provide them with the resources they need. As their "spiritual" leader you are the head coach, but don't feel like you need to be the only one. Invite other colleagues, leaders and experts to join your mentoring team. Let the spirit of the competition infect the department; make sure other students are aware of the team's project and if they do nothing else, cheer their comrades on to victory. The Imagine Cup can be a life changing experience for your students; and the more you do to help them, the more you will benefit as well.

Links:

US Imagine Cup Competition Web Site
World Wide Imagine Cup Competition Web Site
Microsoft Imagine Cup Pressroom
Papa Randy's Imagine Cup Resources Page
Microsoft Developer Network Community Portal
MSDN Academic Alliance