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Jeopardy in the library

The University of Minnesota Library's science quiz bowl

A. This intramural tournament brings hundreds of engineering students to the University of Minnesota Libraries on a Sunday for fun, friendly competition, and prizes.

Q. What is the Science Quiz Bowl?

Game night at the library has a whole new meaning at the University of Minnesota (UMN). Rather than PS2 and Wii remotes,

the players wield electronic buzzers and golf pencils as they speed to answer science quiz questions. In a high-energy tournament similar to "Jeopardy!", science and engineering students show off their knowledge and quick recall as they compete for prizes and the glory of winning the intramural Science Quiz Bowl.

The UMN Science and Engineering and Mathematics Libraries began hosting the Science Quiz Bowl in 2004 as part of

IT Week, an annual event for students in the Institute of Technology (IT), the UMN college of physical sciences and engineering. Its popularity has surged from those first 12 teams: in 2008, 34 teams of four students played a double-elimination tournament, 66 games altogether, with a cadre of librarians running up to 10 games simultaneously. (Results and a description of play are available at sciweb. lib.umn.edu/sciencequizbowl/.)

The tournament is always held on a Sunday afternoon to avoid conflicts with classes;

it thus serves as the kick-off for IT Week. The library hums with activity as teams pass to and from different game rooms, clutching tournament schedules, discussing answers given or missed, speculating about their competition, and sporting the occasional team headband or mascot (beanies, disco balls, even a plant). The team names indicate creativity and often science jokes: Future MacGyvers of the

World, The P-Branes, The Überdorks, Psi Phi. Honors go back and forth between teams of undergrads and graduate students, with the most trash talked when a teaching assistant played against teams of his Physics 101 students. Breadth of knowledge is rewarded, since two-thirds of the questions cover all areas of science and the other third ranges from hip-hop artists to the Roman Empire.

The students nail



One of the Quiz Bowl teams: "Team 2."

questions on centripetal acceleration, iodine's atomic number, Jupiter's moons, and the fracture characteristics of obsidian. The short toss-up questions require speed, to be the first player to ring the buzzer; the bonus questions require teamwork, to agree on answers for all three parts. Most are answered correctly (in increasing proportion as

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teams advance) with wrong guesses earning laughs or groans.

Why play?

The tournament is great fun but also accomplishes quite serious purposes. Hosting an event that celebrates knowledge emphasizes the library's role in the campus's intellectual life. The students obviously enjoy playing in it, and the positive experience they have with the library is a very relevant outreach activity. The librarians who fill the Alex Trebek

role in moderating games also have a positive interaction with the players, experiencing their humor and camaraderie as well as their smarts. Another major outcome is collaboration with various campus entities that plan the other activities during IT Week; the library is now recognized as a significant partner in the success of this student-centered tradition.

The library explicitly devotes its efforts to furthering these goals. Participation in IT Week was the original impetus and remains a priority, so we

integrate as fully as possible into that structure. After setting the tournament date to coincide with IT Week, it has been important—and nontrivial—to get the Science Quiz Bowl included in the schedules showing the whole week's activities. The IT Week student organizers provided visibility in a new way when they chalked the quad sidewalks with Science Quiz Bowl ads. Reinforcing the ties between events, the tournament champions win tickets to the IT Week Banquet (even if one suspects the university bookstore gift cards are the more popular part of the prize package). Coordinated scheduling has also had benefits, such as when the championship game immediately preceded Poker Night in the room next door, allowing the poker players to swell our audience. The associate dean for student services has come to expect our invitations to serve as the scientific judge for the championship. As a result of these persistent efforts, the tournament director now joins various student groups and the IT Dean's Office on the IT Week planning team. Its regular meetings produced unexpected pay-offs this year: candidates in the IT King and Queen competition earned points for attending the championship game, and the college's outreach officer volunteered as a

game moderator. The deeper relationships between the library and the college leadership are clearly carrying over into other areas.



The "Physics Is My Pet" team.

From Rihanna to the Simpsons

The intellectual aspect of the Science Quiz Bowl depends on the quality of the questions. Fortunately we can buy questions; though significant editing and rearranging are needed to develop the desired

science concentration, this saves considerable time compared to writing them from scratch. The students are able to answer most but not all of the questions, which seems the ideal level of difficulty for a friendly tournament. The players all belong to the physical science and engineering departments, but life science questions are not excluded—partly not to further reduce our stock of usable questions, but also to acknowledge the interdisciplinary nature of science. The students enjoy the general knowledge questions as well, especially the pop culture ones. Correctly identifying one of Rihanna's songs may generate a little teasing, but science geeks are always proud to get "Simpsons" questions. Interestingly, graduate students haven't had

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a consistent advantage over undergraduates. The grad students often put together a team from a single department, which can limit their versatility, but they clearly appreciate having this recreational opportunity. We help students connect with each other by offering a teammate-matching service; usually only two teams per year are formed this way, but we're happy to make sure those eight students get a chance to participate.

Providing a positive experience for the

students is a core principle. The bottom line is to get the basic organization right, with detailed planning well in advance in order for everything to run smoothly on game day. Room reservations must be made as soon as the date is set, since we reinforce the library's role as host by holding the tournament entirely within our building, even when this means running games in group study rooms.

The double-elimination structure was also selected with the students' experience in

More tips for running a tournament

If you're considering running a similar tournament, here are a few additional tips on logistics:

- The required investments are staff time, especially for the planning coordinator and the marketing staff, and a moderate expenditure for questions, refreshments, prizes, and perhaps buzzer systems, but these costs can be adjusted to suit almost any budget, depending on tournament size and other conditions.
- Questions are available for purchase from the College Bowl Company (www. collegebowl.com/home.asp) or National Academic Quiz Tournaments, LLC (www. naqt.com/practice-questions.jsp; we use the Collegiate Intramural packets). An alternative is to have librarians contribute questions from their subject areas.
- You may need to rearrange purchased questions to meet your specific format and/or subject focus. For half-hour games, 15 toss-up questions plus 15 three-part bonus questions is about right. Question vendors should be able to provide the approximate subject breakdown of their packets, if you plan to use only a subset.
- Teams should register ahead of time so you can set the schedule, even though the delay may give a few no-shows. You may need to cap the number of teams, depending on the number of available rooms, buzzer systems, moderators, etc.

- Tournament charts by format and number of teams are readily available on the Web, such as at www.collegebowl. com/pub/tournaments.asp.
- Several models of lock-out buzzer systems are available; see a list at www.case. edu/orgs/trivia/internet/equip.html (Quik Pro is perhaps the most common brand seen at tournaments).
- You don't have to buy all the buzzer systems you'll need, since there's a culture of lending among quiz teams; if your library bought one or two systems, you could probably borrow a few more for your tournament from any nearby college bowl teams—and they'll be happy to borrow yours occasionally.
- Prizes don't have to be lavish; bookstore gift cards are appreciated (and, we were told, better than the t-shirts awarded for intramural athletic tournaments).
- Staff should be assigned to take care of nongame tasks such as team registrations, photos, and refreshments; unless the tournament is small, the game moderators and tournament director will be too busy.
- Team name table-tents are helpful not only during games but also in identifying photos afterwards.
- If you'll want to use photos of the teams and games on the tournament Web site or in future publicity, your institution may require you to get the students' permission, e.g., through a photo release form.

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mind, since it means that every team gets to play at least twice, and then the schedule is designed to maximize the number of simultaneous games in order to minimize wait times between games. We sent HTML e-mails to eligible students, and subject-related student groups recruited participants. The tournament director promptly answers all their inquiries (IM is good for this!) and confirms team registrations. The attention to communication continues by providing copies of the rules

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and the tournament schedule, and following up afterward to ask for suggestions and to share the much-appreciated team photos.

On game day, the moderators and other staff help keep the tone light and positive, as appropriate for a friendly intramural tournament, but we also

follow consistent guidelines to ensure a fair competition. For teams that keep winning, it becomes a very long afternoon, so we provide light refreshments periodically in a convenient lounge. The overall mix seems to work—the students enjoy themselves and are very appreciative.

The feedback they provide is overwhelmingly positive, regardless of how well their team did, as these representative messages show: "The tournament has been a blast so far!" "Though our team only completed the first two rounds, we thoroughly enjoyed ourselves and appreciated the quality and range of questions as well as your reading of them." "I just wanted to say that we had a great time at the Science Quiz Bowl and we are looking forward to competing again next year! . . . I really liked the ratio of science to general knowledge questions." "On behalf of my team, I wanted to thank you again for your hard work in running a successful Quiz Bowl this year—we had a great time participating and are very grateful for our runner-up prizes! Hopefully we will be back next year."

The librarians have a great time, too

Running the games is fun, although it takes practice to feel comfortable asking the questions while keeping score and watching the time. The tournament director runs training games so moderators can practice their role and also act as contestants, which improves both their comfort level and the consistent

application of rules on game day. Some moderators prefer to read the questions beforehand, especially to practice pronouncing science terms. Luckily, we haven't noticed any players trying to sneak a look at the questions yet!

As the tournament has grown, we've enlisted more sup-

port staff and student workers to handle the refreshments, photos, and other practical tasks, since the moderators are busy with the games themselves and the tournament director is also monitoring game results, resolving challenges to the accuracy of the questions or the application of the rules, and so on. The work pays off in the enjoyable, exciting interaction with the players, seeing students at their cooperative, competitive, and intellectual best. An associate university librarian who has volunteered repeatedly as a moderator said, "I miss having this kind of contact with students."

The Science Quiz Bowl has proved to be a very successful event at the UMN libraries, providing a fruitful nexus for collaboration with other campus units and engaging many students in a rewarding intellectual activity. That's a good answer.

Thanks to all the UMN librarians and staff who have made five years of the Science Quiz Bowl possible. 22

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