

Program: The Future of Math and Science Education

Speaker: Chris Edwards, PhD, Director, (Sciencetech) Summer Institute; history teacher, Hamilton Southeastern High School

Introduced by: Jeff Rasley

Attendance: 98

Guests: Glenn Bingle, Jane Devoe, Peter Birkel, Kim Clark

Scribe: Russell Judd

Editor: Bonnie Carter

Today's presentation "Updating the software and hardware in educational practice; a way forward for science and mathematics" was given by Chris Edwards, Director of the Sciencetech Summer Institute and history teacher at Hamilton Southeastern High School. Since its beginning three years ago the Institute has brought secondary school teachers together with professors from UIndy, IUPUI and Ball State University for five days to discuss their disciplines, i.e. mathematics, biology, physics, and to develop classroomready curricula.

A recent survey of attendees, published in the magazine Sceptic, showed that most of them enjoyed and valued their experiences. Chris thanked the Sciencetech Club Foundation and Club members for their moral and financial support for the Institute.

Chris then presented these ideas for educational reform:

1. A need for a philosophical shift for teachers and their classroom practice (Software Upgrade)
2. An institutional change to create an environment to be more effective and favorable for developing and keeping teachers. (Hardware Upgrade) Dr. Edwards believes textbooks are not aligned for learning. Information and knowledge have to be presented to students in such a way that they can understand them, connect with them and be able to adapt them for use in different situations. Teachers would review a subject and then would create a curriculum to best pass on the information to students in a targeted time, e.g. 90-180 days, shifting the focus from daily or weekly lesson plans. Thus, teachers would be free to develop their own schedule or curriculum to teach a skill over a set time.

As far as the Hardware Upgrade, Chris believes that school districts are out of date or "medieval." They don't seem to be efficiently organized and are top heavy with teachers not having much input. He recommends:

1. Schools connect more with universities to be able to get in-house academic certificates.
2. Summer institutes or regular similar sessions throughout the year.
3. Teachers get a salary increase when they earn academic certificates.
4. Develop and allow more target-generated curricula.
5. Teachers are rewarded for staying in the classroom.



Dr. Chris Edwards