Wisconsin Society of Science Teachers Convention 2008

Report to the HPS Science Support Committee and North Central Chapter

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WSST held its annual convention March 13-15 in Lake Geneva, Wisconsin. As part of the mission of the HPS Science Support Committee and the NCCHPS to bring health physics to attention of middle schools and high schools, representatives of NCCHPS participated as presenters and exhibitors.

The presentations consisted of two one-hour lectures and one three-hour lab workshop. The first lecture was on the topic of the fundamentals of radiation, including basic physics, units and sources of natural and man-made radiation. The nearly completed Power Point presentation by the SSC serves as the model for this lecture, which is well-suited as an introductory primer for middle/high school teachers. The second lecture was Radiation in Research, Medicine and Education. Both of these lectures were well-attended; we ran a little over the schedule due to many excellent questions asked, and much interest was generated. The three-hour lab workshop was less successful, possibly due to circumstances that were beyond our control: 1) the WSST program was accidentally printed with the page describing all the three-hour workshops left blank; no one knew about the workshop unless they pre-registered online. 2) The workshop was scheduled (by WSST) on the same morning of most of the off-site tours to such venues as Fermilab and Yerkes Observatory. Attendance at all of the onsite Friday morning activities and three-hour workshops suffered a similar downturn in attendance. The HPS three-hour workshop had only four attendees, who received very personal attention.

The exhibit booth was a great success. The exhibit hall was open on March 13 from 4-7 pm and March 14 from 8 am to 4 pm. The Wisconsin Department of Health, Lakeshore Technical College, the Medical College of Wisconsin and NCCHPS provided radiation and health physics handouts. Between the lectures and the booth, we distributed 72 binders containing health physics information and lab activities, and gave away 35 CDV-700 Geiger counters.

Observations

Total attendance at the convention was estimated at 600. Through the classroom/lab activities and the booth, we were able to speak to at least 25% of the total with a sustained discussion about radiation and classroom activities. Several teachers inquired about having a health physicist visit their schools for a special classroom session with the students.

Teacher comments and evaluations indicated that for the state convention format, one-hour presentations/workshops were preferred over the three-hour format, since teachers are trying to cram as many different topics into their schedules as possible.

We each fielded many questions about career opportunities in health physics, medical physics and the radiation-related medical fields. Right behind information about classroom activities, this was likely the second most frequently-asked topic.

Recommendations

The state science teacher convention is possibly the most effective way to reach middle/high school science teachers. NCCHPS' previous work with the Wisconsin Association of Physics Teachers was good, but the number of teachers in attendance is small by comparison. The state level convention is also composed of all the sciences; health physics by its very nature is interdisciplinary and offers much to each of the physical sciences. As the state conventions move to different locations, there are many local teachers that attend, keeping the audience relatively fresh. It is our recommendation that NCCHPS plan to be involved with WSST annually.

Having the HPS booth available to anchor the displays in the exhibit hall was a tremendous asset in reaching teachers who did not attend our sessions. Depending on the cost and potential utilization at other state science teacher conventions within the NCCHPS region, the chapter should consider purchasing a similar booth for future use.

Lab exercises for the Vernier LabPro – develop recommended classroom activities for the kit that fits that equipment supplied. Revise the book to only include the experiments we suggest and add any others if appropriate. This would include revising the alpha/beta/gamma experiment since we are not providing the alpha source. Also, we should include some suggestions on experiments that do not use radioactive sources. One suggestion was to provide a schematic to show the teachers how to connect a CDV to their LabPro. It seemed like about 25% of the schools already have the Vernier LabPro in their school, but few had the GM detector.

Free handouts – Radioactive Goo (this was an item available a few years ago from Alpi International www.alpi.net), meters and other FREE stuff. Having the hook to get the teachers to stop at the table and talk worked well.