

**Minutes of the APICS Science Education Committee Meeting
held at 10am, Saturday, April 6, 2002,
at the Nova Scotia Teacher's Union Building, Halifax, Nova Scotia.**

The meeting was called to order at 10:02 am. The meeting was attended by Jacques Allard (U. de Moncton), Shannon Fitzpatrick (UPEI), Merzik Kamel (UNB Saint John), Doug Ralston ([Chair], Nova Scotia Association of Science Teachers), Fred Smith ([Secretary and Treasurer], MUN), Dennis Tokaryk (UNB Fredericton), Marilyn Webster (Nova Scotia Dept. of Education), Maryanne White (Dalhousie U.), Lois Whitehead (Executive Director, APICS).

1. Welcome and Introductions

Shannon Fitzpatrick and Maryanne White were welcomed as new members on the committee.

2. Changes to Agenda and Adoption

Lois Whitehead added a request for representation from the committee at the next meeting of APICS council (April 12/13 2002), and a comment on the APICS/Canpolar Science Communication Award, under item 7c - Other.

Dennis Tokaryk requested that an Announcements section be added after Approval of the Minutes.

Fred Smith added a comment on membership of committee under 7c - Other.

The agenda was adopted as amended.

3. Approval of Minutes Oct. 20, 2001

Merzik Kamel asked for clarification of the monetary balance listed under 5e. Lois and Fred replied that it was money in trust at APICS for science awards given out by this committee.

Motion: That the minutes of the Oct. 20, 2001 meeting be adopted as circulated (Fred Smith/Jaques Allard). *Carried.*

4. Announcements

Dennis Tokaryk announced that he and Paul Munro will share the representative position for UNB Fredericton.

5. Old Business (Business Arising)

(a) Science Fair status

Lois Whitehead and Marilyn Webster have been instrumental in contacting the science fair organizers in Atlantic Canada. Eleven regional fairs were contacted this year, compared to seven last year. There is some difficulty in getting reports and invoices back from these representatives, and the process will likely extend to September.

For clarification, Lois Whitehead pointed out that two APICS awards are given at the science fairs: Honourable Mentions (about 500/year), and a Science Education Committee Award for communication of science (\$50 prize, one per fair).

Lois Whitehead also mentioned that the International Science Fair, sponsored by Intel, will be held in Kentucky this year. Ten teachers from different countries (who are not the supervisors of student projects), will be invited to attend. A bilingual woman from Cape Breton who is starting a fair in her region will be Canada's delegate to the International Fair.

There is currently no regional fair held in Cape Breton, or in Halifax. Maryanne White asked how one might facilitate the revival of a fair in the Halifax region.

Motion: That Maryanne White writes a letter on behalf of the APICS Science Education Committee to encourage the revival of a science fair in the Halifax region (Dennis Tokaryk/Maryanne White). *Carried.*

Marilyn Webster agreed to collaborate with Maryanne White on the letter.

(b) APICS Executive council meeting

The meeting was held at U. de Moncton in November, 2001. A report from the APICS Science Education Committee was presented. Doug Ralston reported that Roger Gordon, the Dean of Science at UPEI, replaced Zöe Hayes as the _____. Items of interest included efforts to increase bilingualism in APICS-sponsored events, liability insurance associated with events, the 40th anniversary of APICS,

underfunding of Atlantic universities, and a perceived emphasis on undergraduate (instead of graduate) education in the region. Concern was expressed over bill C15 proposed by the federal government, which restricts research on animals and may classify some research as negligent (and criminal) treatment of animals. APICS awards were discussed, including those for communicating science research to the public, for science teaching, and for science journalism (a new award of \$500 externally funded by the Canpolar corporation).

The Science Education Committee discussed ways to increase its (and APICS's) visibility, including encouragement of discussions and cooperation between all representatives within a university, and a bulletin board for APICS activities on the web. Marilyn Webster suggested that a structure chart might be helpful for giving a better sense of the organization's overall form.

(c) Committee Web Page - Fred Smith has kept the web page up to date, and encourages the committee members to confirm their email addresses. Some concern was expressed over organizations like the Departments of Education, government institutions, and Science East, since they seldom if ever send representatives to committee meetings. Lois Whitehead suggested that perhaps an associate membership might be more appealing to these groups.

(d),(f) Youth Education and Communications Program report: The YEC program received an NSERC award of \$17900 per year for 3 years. It has finished year one, during which a survey of second year students was conducted at twelve institutions in the Maritimes. The next phase of the project involves starting a youth internship program (in which students would be placed with researchers for a number of weeks during the summer), and a youth-oriented web presence sponsored by APICS targeting 13-18 year olds in high school and junior high. Lois Whitehead reported that she had secured funding to hire an IT grad to assist in development of the web page, which is due to launch in September 2002. The web page will be designed for high-interest hooks into science, rather than for rigorous academic material. Merzik Kamel asked what the outcomes of the survey might be; he found that there too many questions (about 100), and that students lost interest after twenty or so and abandoned it.

(e) Financial report. At this point, the committee's finances are handled directly by APICS. Walter Zaikauskus from Dalhousie University reported that the \$4500 left over from the last Science Education conference has been sent to APICS; it will become seed money for the next conference.

6. Correspondence

None reported.

7. New Business

(a) Communication Issues and Plans: We have difficulty in setting appropriate terms of reference, or instilling interest in, the Science Education committee's award for communication of science. The award is available for presentation at each of the APICS student conferences. Jacques Allard mentioned issues with the award for the math conference. The faculty consider the award unsuitable, since most of the conference focuses on academic research rather than on communication and education. This leaves out students pursuing degrees in math education, which make up roughly half of the math students at U. de Moncton. It was noted that the chemistry and physics meetings often have sessions on education, organized independently of this committee. A suggestion was brought forward that representation from faculties of education should be sought for the committee.

Maryanne White suggested that a one page description of the award on the website might help. It might contain suggestions for how the committees might administer and promote the award. Fred Smith asked for suggestions for this website page before the end of May 2002.

(b) 6th Education Conference 2002 - planning

I. Location: The locations now suggested for the conference are SFX, UNB (Fredericton), and UNB (Saint John). A discussion between those representatives will take place very soon, and the final location will be circulated to committee members.

II. Date: August 2002 is no longer viable, so dates of the 1st/2nd or 23/24th of November 2002 were suggested, depending on the host institution's schedule.

III. Theme: We agreed that the conference should consider the issues surrounding a student's transition between high school and university.

IV. Content: A tentative conference schedule was proposed:

Friday evening: 8-9:15 pm. A plenary session discussion that presents an overview of science education from kindergarten to fourth year of university.

Saturday, 9 am-9:45 am: A representative from Ministries of Education will be asked to describe the new math curriculum proposed for Maritime high schools.

Saturday, 9:45-10:15am: The math committee will respond to the proposed curriculum.

Saturday, 10:15-10:45am: Break.

Saturday, 10:45am-12:30pm: A panel discussion on the high school perspective on preparation for university. Representatives might include a student, a teacher, a university educator, a ministry representative, and a guidance counselor.

Saturday, 12:30-2:00pm: Lunch

Saturday, 2:00-3:30pm: A panel discussion on the universities' philosophies on dealing with the transitions. Topics might include placement tests, failure rate issues, courses like University 1001.

Saturday, 3:30-4:00pm: Break.

Saturday, 4:00-5:30pm: Contributed talks on new innovations in first year science education (perhaps on Experiential Science courses, Integrated Sciences as done at University of British Columbia, etc.)

Saturday evening: Banquet.

Sunday, 9:00-10:30am: A general discussion or panel on smoothing the transition, with an attempt draw conclusions from the conference for presentation to administrators at universities and education ministries, and to the media.

Sunday, 10:30am-11am: Break.

Sunday, 11am-12:15pm: Wrapup, perhaps with a discussion of the results from the YEC survey.

c) Other: Lois Whitehead mentioned that this year's winner of the APICS/Canpolar Science Communication Award is Sandra Devlin, who had been nominated by Ralf Brüning (Mount Allison) and Dennis Tokaryk (UNB Fredericton). Sandra will be presented with her award at the APICS council meeting on April 12th. Jacques Allard agreed to represent the Science Education Committee at the council meeting, since Doug Ralston will not be able to attend.

8. Adjournment at 1:15 pm.

9. Thanks: the committee expressed their appreciation to Doug Ralston for setting up the meeting, and for chairing the committee.

Respectfully submitted by Dennis Tokaryk, for Fred Smith, Secretary of the APICS Science Education Committee, April 9, 2002.