

WOMEN IN SCIENCE, ENGINEERING AND TECHNOLOGY: STRATEGIES FOR A GLOBAL WORKFORCE

September 28 and 29 2006

Ottawa Marriott Hotel, Canada



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- Session: 3A Primary and Secondary Education
- Chair: Norma Jarboe, Opportunity NOW, UK
- Speakers:
 - Yukiko Miura NISTEP, NEXT, Japan
 “Encouraging Young Girls into S&T Fields -
 Efforts of Researchers, Teachers and Graduate Students in Japan”
 - Jennifer Flanagan, ACTUA, Canada
 “Successful strategies for engaging and inspiring girls in science
 engineering and technology”



Japanese program

- Problem: Low rate (11%); poor role models; girls don't see themselves in science careers; parents opposed.
- Solution: Information on careers; Stimulation of interests; Promote active female participation; Involve active scientists/engineers as role models



ACTUA Program, Canada

- 225,000 students involved annually
- Need special emphasis for girls-only
- Involves hundreds of volunteers, students
- Camps, Workshops, Demos, Tours, visits
- Community involvement (375)
- Role models, build confidence
- Support parents, encourage teachers
- Industry/government sponsorship
- Overall Budget (boys and girls) \$4 million



Discussion: The Girl Problem

- Why don't girls like science or engineering?
Answer: It's gross, dirty, unsafe, not for girls
- Do not often see women in these roles; need mentors
- Girls need a chance to invent, discover, build, design – build confidence
- Start early, grade 3's already have ideas about careers



Discussion: Teaching

- Elementary science/math teachers need support and better training
- They are happy to get help from NGO programs
- Science students don't go into teaching; too little money
- But student volunteers in NGO programs get interested in teaching

Discussion: Outreach

- Why is this a “volunteers” world? Where are governments?
- Not all scientists are good at outreach; but those who are need help
- Need to learn from big advertizing – get them involved in raising awareness of kids in science and engineering opportunities

Discussion: Person power?

- Industry is getting more concerned/involved. Where will their new engineers come from?
- China seems to be doing well with encouraging women in engineering and science, other countries are worried.

Discussion: The Future?

- We have already passed the peak for girls' enrolment in engineering! 15 years ago!
- Concern for the “lost boys” problem may push out emphasis on girls in science
- Science is not just for “Scientists” but for good citizens and wise consumers