

# CURRICULUM VITAE

**Edit M. Yerushalmi**

## PERSONAL DETAILS

Date of birth	31.3.60
Personal status	Married + 3
Military service	1979-1981
Address	Work: Department of Science Teaching, The Weizmann Institute of Science, Rehovot, Israel Work: Physics Department, University of Minnesota, 116 Church St. S.E. Minneapolis, MN 55455, U.S.A. Home: 26 Hachaluts St., Jerusalem, 96222, Israel
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## EDUCATION

1993-2000	<b>Ph.D. in Science Teaching, Submitted</b> , Supervisor: Prof. Bat-Sheva Eylon Weizmann Institute of science, Rehovot, Israel
1984-1987	<b>M.Sc. in Physics</b> , Supervisor: Prof. Steve Lipson Technion, Israel Institute of Technology, Haifa, Israel
1981-1984	<b>B.Sc. in Physics</b> cum laude Technion, Israel Institute of Technology, Haifa, Israel

## DISSERTATION

Promoting self-monitoring in physics problem-solving: Professional development through a "cooperative teachers' inquiry" workshop

## PAST AND PRESENT APPOINTMENTS

September 2000	<b>Visiting Scientist</b>
– Present	Weizmann Institute of Science, Science Teaching Department, Rehovot, Israel,
August 1999	<b>Research Associate</b>
– Present	University of Minnesota, Physics Department, Minneapolis, MN, U.S.A.
October 1990	<b>Curriculum Developer</b>
– August 1993	Weizmann Institute of Science, Science Teaching Department, Rehovot, Israel
September 1991	<b>Physics Teacher</b>
– August 1993	Israel Art and Science Academy, Jerusalem, Israel
September 1991	<b>Physics Teacher</b>
– August 1992	Mae Boyer Secondary School, Jerusalem, Israel
October 1990	<b>Physics Teacher</b>
– August 1991	Hebrew University Secondary School, Jerusalem, Israel
September 1988	<b>Teaching Assistant</b>
– September 1990	Hebrew University, Physics Department, Jerusalem, Israel
February 1984	<b>Teaching Assistant</b>
– September 1987	Technion, Israel Institute of Technology, Physics Department, Haifa, Israel,

## **PROFESSIONAL EXPERIENCE:**

### **INVOLVEMENT IN DEVELOPMENT, IMPLEMENTATION AND EVALUATION PROJECTS**

1999-2001     **Professional development research:**

**“Instructors perceptions on learning and teaching Physics problem solving”**

University of Minnesota, Physics Department, Minneapolis, MN, U.S.A.

- Collaborated in designing, conducting and analyzing a clinical interview to study Physics faculty perceptions on learning and teaching of Physics problem solving
- Designed summer course for Physics teachers on problem solving research

1994-1998     **Curriculum development and evaluation for students and teachers :**

**Teachers' collaborative inquiry on instruction for promoting self monitoring skills in physics' problem solving**

Weizmann Institute of science, Science Teaching Department, Rehovot, Israel

- Directed development and evaluation of instructional methods and learning materials in classical mechanics, designed to promote self-monitoring habits in students problem solving
- Directed development and analysis of a survey on students' self-monitoring practices
- Composed activities portfolio for introductory teachers' workshop, “How to Learn from Mistakes”, intended to change teachers perceptions on Physics problem solving, it's learning and teaching
- Composed activities portfolio for follow-up teachers' workshop, “How to Learn from Mistakes”, intended to support teachers engaged in collaborative teacher inquiry on instruction promoting self monitoring in Physics problem solving
- Composed activities portfolio for leader teachers workshop on Physics problem solving
- Designed and conducted formative evaluation of a structured framework for collaborative teacher inquiry implemented in person as well as in an intra-net setting.

1992-1993     **Curriculum development and evaluation for students and teachers :**

**Student centered instruction**

Weizmann Institute of science, Science Teaching Department, Rehovot, Israel

- Developed a yearlong workshop on new perspectives in mechanics instruction: introducing research papers and new instructional materials; guiding development and evaluation of new approaches by the participants.
- Assisted in a pilot study conducted by Prof. B. Eylon on learning processes and teaching methods in a yearlong teacher-training program aimed at a student-centered approach to physics teaching.
- Conducted and analyzed a survey of student expectations in introductory physics.

1990-1993     **Curriculum development and evaluation for students:**

**Mechanics-Activity Modules**

Weizmann Institute of science, Science Teaching Department, Rehovot, Israel

- Composed Activity Modules in Mechanics
- Developed an instructional model for using feedback questionnaires by teachers to create a continuous student-teacher dialogue

**PROFESSIONAL EXPERIENCE: INSTRUCTION**

**For Physics Teacher Leaders**

1994-1999             Conducted workshops on problem solving

**For Physics Teachers**

2000                     Taught summer course on problem solving research

1994-1998             Guided collaborative teacher inquiry on instruction towards self monitoring in problem solving, in a classroom as well as intra-net setting

1993-1994             Taught summer courses on didactics of classical mechanics

1992-1993             Conducted a yearlong workshop on new perspectives in mechanics instruction

### **For Undergraduate Science Students**

1999	Taught recitation sections in calculus based introductory physics
1984-1987	
1999	Guided laboratory work in introductory physics
1988-1990	
1984-1987	

### **For High School Physics Students**

1990-1993	Taught courses in classical mechanics, electricity and magnetism
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### **PROFESSIONAL AWARDS**

1999	Orly Kaplan Award for Research in Science and Mathematics Education
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### **SCHOLARSHIPS**

1997-1998	Feinberg Graduate School Fellowship
1994-1997	David and Eleonore Rukin Scholarship
1993-1994	Feinberg Graduate School Fellowship
1989	Academic Woman Scholarship
1984	Gutvirt Scholarship

## PRESENTATIONS IN CONFERENCES

- August 2000      “Why Solve Problems? – Interviewing College Faculty About the Learning and Teaching of Problem Solving”; GIREP Summer meeting, Barcelona, Spain
- August 2000      “Teachers' Approaches to Promoting Self-Monitoring in Physics Problem Solving by Their Students”; GIREP Summer meeting, Barcelona, Spain
- July 2000        "Why Solve Problems? - Part 1: Designing an Interview for Instructors "; AAPT Summer Meeting, Guelph, Canada
- April 2000       “Managing Collaborative Teacher Inquiry: Cognitive Lessons From Implementation In A Computerized Network Setting”, AERA annual meeting, New Orleans, LA, U.S.A.
- January 2000     "High School Teachers' Approaches to Promoting Self-Monitoring in Physics Problem Solving "; AAPT Winter Meeting, Kissimmee, FL, U.S.A.
- April 1998       "Learning from Mistakes – A Workshop for Physics Teachers on Feedback and Control in Problem Solving"; Israel Physical Society, Annual Meeting, Rehovot, Israel
- January 1998     "Developing Learning Skills Through Problem Solving"; Presented by Prof. Bat-Sheva Eylon in a Special Session on Physics Pedagogy Honoring Prof. Reif's Contributions to Research in Physics Education, AAPT Winter Meeting, New Orleans, LA, U.S.A.
- December 1997   "How to Learn from Mistakes"; Annual Meeting of Israel Physics Teachers, Shfaim, Israel
- July 1997        "Teachers' Workshop in an Intranet Surrounding on Problem Solving"; The 14th Annual Conference on Computers in Education: "Computerized Education: Lessons from the Past and Future Directions", Tel-Aviv, Israel

January 1993	"Student Expectations in Introductory Physics - A Model for Using Feedback Questionnaires by Teachers to Create a Continuous Student-Teacher Dialogue"; From Theory to Practice - International Conference on Science Education in Developing Countries, Jerusalem, Israel
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## **SEMINARS**

October 1998	Seminar for Ph.D candidates in Science Education, Beit Oren, Israel
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June 1995	Seminar for Ph.D candidates in Science Education, Nir Etsyon, Israel
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## **PROFESSIONAL EXCHANGE PROGRAMS AND TOURS**

September 1998	<ul style="list-style-type: none"> <li>• Prof. F. Reif, Center for Innovation in Learning, Carnegie-Mellon University, Pittsburgh, Pennsylvania, U.S.A</li> <li>• Prof. J. Redish and Prof. D. Hammer, Department of Physics, University of Maryland, College Park, Maryland, U.S.A</li> <li>• Prof. Jose P. Mestre, Dept. of Physics &amp; Astronomy, University of Massachusetts, Amherst, Massachusetts, U.S.A</li> </ul>
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Summer, 1986	Groupe de Physique des Etats Condens UMR CNRS 6631 Faculte des Sciences de Luminy University de la Mediterranee - Aix-Marseille II
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Summer 1984	Israel-Germany Student exchange program, Institute fur Kerntechnik, Technische Universitat Berlin
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## PUBLICATIONS

### In English

- Yerushalmi, E., Heller, K., Heller, P., Henderson, C., Kuo, V. *Why Solve Problems? – Interviewing College Faculty About The Learning And Teaching Of Problem Solving*, Proceedings of GIREP meeting, Barcelona, Spain, 2001
- Yerushalmi, E. and B. Eylon *Teachers' Approaches To Promoting Self-Monitoring In Physics Problem Solving By Their Students*, Proceedings of GIREP meeting, Barcelona, Spain, 2001
- Yerushalmi, E. M. and B. Eylon *Report - A Model for Creating a Continuous Student-Teacher Dialogue*, Science Teaching Department, Weizmann Institute of Science, 1995

### Papers in preparation

- To be submitted to Journal of Science Education and Technology: Yerushalmi, E. and B. Eylon *How Feedback Propels Educational Problem Solving? Lessons from Intra-Net Implementation*
- To be submitted to International Journal of Science Education: Yerushalmi, E. and B. Eylon *Structuring Inquiry Loops in Teachers Collaborative Inquiry*
- To be submitted to The Physics Teacher: Yerushalmi, E. and B. Eylon *How to Learn From Mistakes? - Teachers' Instructional Innovations*
- To be submitted to Science Education: Yerushalmi, E. and B. Eylon *Analysis of Intra-Net Discourse of Physics Teachers Involved in Collaborative Inquiry*

### In Hebrew

- Yerushalmi, E. M. *Mechanics: Activity Modules*, Science Teaching Department, Weizmann Institute of Science: 1994
- Yerushalmi, E. M. *Portfolio for Leader Teachers' Workshop: Problem Solving*, Science Teaching Department, Weizmann Institute of Science: 1996
- Yerushalmi, E. M. *Introductory Portfolio for Teachers' Workshop: How to Learn from Mistakes*, Science Teaching Department, Weizmann Institute of Science: 1996
- Yerushalmi, E. M. *Follow-up Portfolio for Teachers' Workshop: How to Learn from Mistakes*, Science Teaching Department, Weizmann Institute of Science: 1997



- Yerushalmi, E. M. *Portfolio for Teachers: Resources Developed in the "How to Learn from Mistakes" Teachers' Workshop*, Science Teaching Department, Weizmann Institute of Science: 1997

## **REFERENCES**

Available upon request