May 2015

CURRICULUM VITAE

Name Reuven Lazarowitz
Born: April 22, 1932, Braila, Romania
Immigrated to Israel in 1947
Family Status: Married to Prof. Rachel Hertz-Lazarowitz :
(Children: Nurit, Neer, and David)

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ACADEMIC DEGREES

Ph.D Science Education in Biology,
The University of Texas at Austin, USA, 1973.

M.Sc Biology (Botany, Zoology, Biochemistry),
Hebrew University, Jerusalem, Israel, 1963.

Teaching Diploma. Hebrew University, Jerusalem, Israel, 1963

ACADEMIC APPOINTMENTS

Dept. of Education in Technology and Science, IIT, Technion, Haifa, Israel

2000 Professor Emeritus : Science Education in Biology

1997 Professor : Science Education in Biology

1989 Associate Professor, Science Education in Biology

1997-1999 Head, Department of Education in Technology and Science. IIT, Technion, Haifa, Israel.

1987-1988 Visiting Scholar, Graduate School of Education, University of California,
Los Angeles, UCLA, USA.

2000-2001 Visiting Research Professor,
a) Teachers College, Columbia University. NY, USA.
b) Dep. of Learning and Instruction. New York University. USA

1989 Visiting Scholar, Science and Mathematics Education Centre, Curtin
University of Technology, Perth, Western Australia

1980 - 1881 and Summer 1985 — Visiting Professor: a) Secondary Education Department, Brigham Young University, Provo, Utah, USA.
b) Dept. of Biological Sciences, University of Texas at El Paso, UTEP, USA.

1979-1988 — Senior Lecturer, Department of Education in Technology and Science, Technion, Haifa, Israel.

1974-1978 — Senior Teacher Department of Education in Technology and Science, Technion, Haifa, Israel.

1972-1974 — Instructor, DOALL Department, University of Texas at Austin, USA.

1970-1971 — Teacher, Teacher Training Department, Technion, Haifa, Israel.

ACADEMIC POSTS and Member of:

2005 -2010 — Head of the Academic Council, College of Sakhnin for Teacher Education
Editorial Board, Al Nibras, Journal of Education, STS, Sakhnin, Israel

2006 to present — Editorial Board, Journal of Science Education and Technology, Boston, USA, Springer Publishers, New York, NY, Manhattan, 10013, USA

2005 – 2007 — Editorial Board, Researchers in the Emek, Compilation of Articles Written by Researchers at the Max Stern Academic College of Emek Yezreel, Israel.Vol.1 Oct. 2006; Vol. 2 Oct. 2007. Vol.3 Oct.2008 (in Hebrew and English)

1998-2004 — Editorial Board , Science and Technology Education Library, Kluwer Academic Publishers, The Netherlands.

1998-2000 — Steering Committee, Israel Science Education Center and Ministry of Education, Culture and Sport.

1996-2000 — , Editorial Board of the Journal, "Studies in Education" Haifa University Press. (in Hebrew with English Abstracts), Israel.

1992-1998 — External Reviewer for the:
Journal of Research in Science Teaching, NARST, USA.
Research in Science and Technological Education.UK.

1995-2000 — Outstanding MSc. and PhD. Thesis Award Committee of the National Association of Research in Science Teaching in the USA (NARST)

1995-2001 — Panel of Assessors for the Australian Research Council (ARC). Research Grants in Science Education. Australia

1991-1994 — Special Advisory Board "Assessment and Evaluation of Learning and Instruction", European Association of Research in Learning and Instruction, EARLI.

1990-1995 — Committee of Interdisciplinary Graduate Studies. Department of Education in Technology and Science, Technion, Haifa, Israel.

1992-1993	Department Seminar Coordinator
1983-1987	
1994-1995	Department Coordinator of Graduate Studies Program
1988-1990	
1981-1982	
1979-1980	Department Coordinator of Undergraduate Studies.

TEACHING EXPERIENCE

1988	Contemporary Problems in Science Education (Graduate Course). Science and Mathematics Education Centre, Curtin University of Technology, Perth, Western Australia.
1974-1987	a. Methods of Instruction in Biology for Secondary Schools.
1994	b. Selected Problems in Teaching Biology (a-b undergraduate courses) Technion, Haifa.
	c. Developments in Modern Biology Instruction.
	d. Analysis of New Curricula in Biology.
1983-1986	e. Philosophical Foundations and Principles for Science Curriculum
1994	Development. (c, d, e - graduate courses) Technion, Haifa.
1977 - 1985 and	Introduction to General Biology (Undergraduate Course),
1986 - 1987	Department of Biology, Technion, Haifa.
1980 - 1982	Biology Method Course; Concept Teaching; Curriculum Instruction;
Summer 1979 and	Science Teacher Instruction in Inquiry Methods, Visiting Professor,
Summer 1985	Department of Secondary Education, Faculty of Education, Brigham Young University, Provo, Utah, USA.
1968 - 1971	In-service Training of Secondary Biology Teachers Courses (Nuffield Biology, BSCS Inquiry into Life, New Methods of Teaching Biology in High Schools) External Studies Department, University of Haifa, Israel
1962 - 1967	In-service Training Courses for Elementary Science Teachers in Biology, Ministry of Education and Culture, Israel.
1960 - 1970	Biology Teacher, Secondary High School, Nahariya, Israel.
1959 - 1960	Biology Teacher, Gimnasia Ivrit, Secondary High School, Rehavia, Jerusalem, Israel.

RESEARCH EXPERIENCE

Areas of Research: The cognitive and affective domains of high school students instructed in Biology in three modes of learning by inquiry: computer assisted learning, cooperative and individualized approach. Science teachers' education.

1994 - 1997	Content Knowledge and Pedagogical Content Knowledge in Science Teacher Education.
1980 - 2001	Academic achievement, cognitive stages, cognitive and affective outcomes and spatial ability of high school students in Biology, instructed in computer assisted learning, cooperative and individualized inquiry settings.
1976 - 1979	Junior and high school students' preferences and interests in science learning.
1974 - 1976	Classification ability and cognitive outcomes of junior-high school students in Biology.
1971 - 1974	Biology teachers, student-teachers and teaching science in an inquiry approach.
1959 - 1961	The Effect of Gibberellin and Kinetin on the germination of photosensitive seeds and growth of their seedlings. MSc Thesis. Hebrew University, Jerusalem

CONSULTING ACTIVITIES

1999 - 2002	Biotechnology, Environmental, and Science Education, Curriculum Development for the Max Stern Academic College of Emek Yezreel, Israel
1993 - 1995	Science Curriculum Planning Committee for Junior High Schools in Israel, Ministry of Education, Culture and Sport, Jerusalem
1993 - 1994	Higher Education Committee for Academic Accreditation of Arab Teachers' College in Haifa, Council for Higher Education at the Ministry of Education, Culture and Sport, Jerusalem.
1993 - 1994	Thematic Course in Science for Non-Major Students in Science, University of Texas at El Paso, UTEP, USA.
1992 - 1993	New Laboratory Experiments in Biology for Freshmen and Non-Majors in Science. Department of Biological Sciences, University of Texas at El Paso, UTEP, USA.
1992	Restructuring and Evaluation of the Biology Curriculum for Freshmen and Non-Major Students in Science. College of Natural Sciences. UTEP, USA.
1980 - 1981 and 1979	Evaluation of Science Education Program, Department of Secondary Education, Brigham Young University, Provo, Utah, USA.
1981 - 1983 and 1967 - 1971	Matriculation Examinations in Biology. Ministry of Education and Culture, Jerusalem, Israel.

1968	Report on Implementation of Nuffield and BSCS Programs of Teaching Biology in High Schools in Israel. Presented to UNESCO and based on studies carried out as a result of their fellowship, UNESCO, Paris, France.
1990 - 1992 1968 - 1970	Development of Biology Curricula for 9th and 10th grades, Ministry of Education and Culture, Jerusalem, Israel.
1975 - 1976	Report on Inservice Secondary Science, Mathematics and Technology Teachers' Training Courses at the Department of Education in Technology and Science, Technion, Israel. a. First Report – 1975; b. Second Report - 1976
1975 - 1976	Member of the Team Writers of Biology Curriculum for 7th-12th grades, 2nd ed., Ministry of Education and Culture and The Israel Center for Science Teaching, Hebrew University, Jerusalem, Israel.
1975 - 1976	Evaluation of the learning unit "Man and Water" for the 9th grade students, University of Haifa, Israel.

FELLOWSHIPS

1968	UNESCO Fellowship International Institute of Education, New York, USA. 1. Nuffield Project, College of Education, Sheffield, England. British Council, UK 2. Biological Sciences Curriculum Studies (BSCS Center) at the University of Colorado, Boulder, Colorado, USA and The Science Education Center, University of Texas at Austin, Texas, USA.
1971-1972	Ministry of Education and Culture Fellowship, Jerusalem.
1971-1974	National Council of Jewish Women Fellowship, NY, USA. (Fellowship for Ph.D. studies)
1973-1974	Science Education Center, University of Texas at Austin, USA. (Fellowship for post-doctorate studies).
1971-1975	Israel Science Teaching Center Fellowship, Hebrew University, Jerusalem, Israel.

GRANTS

1976 - 1980	Israel Science Teaching Center, Hebrew University, Jerusalem, Israel. Research Grants.
1976 - 1978	Institute of Research of Arab Education in Israel, University of Haifa and Ministry of Education and Culture, Jerusalem, Israel.

1979 - 1980 Utah State Office of Education Research Grant, Salt Lake City, Utah, USA.

1980 - 1981 Faculty of Education Research Grant, Brigham Young University, Utah, USA.

1990 - 1994 Israel Science Teaching Centre and Ministry of Education and Culture, Jerusalem, Israel.

1992 - 1995 NSF and College of Science, University of Texas at El Paso, USA.

a) 1991 – 1996 Communication, Regulation and Coordination in Plants.
385,000 NIS Israel Science Teaching Center & Ministry of Education, Culture and Sport.

b) 1994 - 1996 Performance Tasks and Performance Assessment of High School
402,000 NIS Students Studying Primary Prevention of Cardio-Vascular Diseases.
Ministry of Education, Culture and Sport.
1996- **40,000 NIS** Chief Scientist. Ministry of Health
1999- 2001 Israeli Science Teaching Center, MALAM
160,000 NIS

c) 1996 - **57,715 NIS** Content Knowledge and Pedagogical Knowledge.
Chief Scientist, Ministry of Education, Culture and Sport.

d) 1998 – 1999 Ionizing Radiation, Biological Uses and Effects.
185,000 NIS Israel Science Teaching Center, MALAM

e) 2000 – 2002 Microorganisms. A STS Learning Unit
900,000 NIS Israel Science Teaching Center, MALAM

f) 2001-2003 The Blue Globe. Seas and Oceans. Preservation and Ways of
750,000 NIS Utilization Development and Implementation. Formative and
Summative Evaluation Study. Israel Science Teaching Center, MALAM

g) 2002 – 2003 Teachers' Handbook on Ionizing Radiation, Biological
301,511 NIS Uses and Effects. Israel Science Teaching Center
h) 2002-2004 Handbook on Ionizing Radiation, Biological Uses and Effects.
200,000 NIS Israel Science Teaching Center. Arabic Edition.

i)2002 – 2004 MUTAV, Teachers Handbook. Israel Science Teaching Center, MALAM
600,000 NIS

MEMBERSHIP in COMMITTEES

1994-1998 Technion Committee for Recognition of Matriculation Diploma

1994-1999 Chairman of the Technion Ethics Committee for Research on Human Beings

1981-1982 Graduate Studies Committee, Technion, Haifa.

1976-1983 Matriculation Examinations Team in Biology, Ministry of Education and Culture, Jerusalem, Israel.

1974 - 1976	Director of the In-service Training Division of Secondary Science, Mathematics and Technology Teachers. Department of Education in Technology and Science, Technion, Haifa.
1968 - 1971	Department of External Studies, University of Haifa and Technion, Haifa, Israel.

MEMBERSHIP IN PROFESSIONAL ASSOCIAT

* National Association for Research in Science Teaching (NARST), USA.
* Israel Educational Research Association (IERA), Israel.
* International Association for the Study of Cooperation in Education (IASCE), USA.
* European Association of Research in Learning and Instruction (EARLI), Europe.

PAPERS PRESENTED AT INTERNATIONAL CONFERENCES. R. Lazarowtz

1. "Implementation of an Individualized Audio-Tutorial Learning Unit "The Cell" for 9th Grade Students". (with J. Huppert), Bat-Sheva Seminar on Curriculum Implementation and Relationship to Curriculum Development in Science. International Conference. Weizman Institute of Science, Rehovot, The Hebrew University, Jerusalem, Israel, July 23-28, 1978.

2. "Junior High School Students' Biological Classification Ability related to their Level of Intelligence, Verbal and Mathematical Abilities". (with T. Globerson and H. Weinberg). Science Council, ATA, National Science Teachers Association, NSTA, Banff, Alberta, Canada, October 6-9, 1978.

3. "Developing Creative Thinking of Secondary School Students in Biology Subjects." (with J. Huppert). 27th Annual Convention of AETS and NSTA Georgia World Congress Center, Atlanta, Georgia, U.S.A., March 23-27, 1979.

4. "Reasons Why Elementary and Secondary Students Do and Do Not Like Science" (with H. Baird and V. Allman). 29th National Convention, National Science Teachers Association (NSTA), New York, New York, April 3-6, 1981.

5. "Science Interest of Secondary School Students in Utah" (with H. Baird and V. Allman). National Association of Research in Science Teaching (NARST), Annual Meeting Grossinger's Conference Center, Catskill Mountains, New York, U.S.A., April 5-9, 1981.

6. "Cooperative Learning Comes to the High School" (Experiment on Biology Instruction). International Symposium (with H.J. Baird and Rachel Hertz-Lazarowitz). American Educational Research Association (AERA), New York, March 1982.

7. A Workshop for Science Teachers on Implementing the Cooperative Investigative Learning Approach (with H.J. Baird). 30th National Convention, National Science Teachers Association (NSTA), Chicago Illinois, April 2-5, 1982.

8. Cooperative Learning in Biology High School, Effects on Academic Achievement and On-Task Behavior (with H.J. Baird, Val Bowlen and Rachel Hertz-Lazarowitz. Annual Meeting of the Association for the Education of Teachers in Science (AETS), Chicago, Illinois, April 2-5, 1982.

9. Arab Science Teachers' Attitudes towards Teaching Science by Inquiry in Secondary Schools in Israel (a comparative note on American and Israeli teachers' attitude is added) (with Hatim E. Khoury). National Association of Research in Science Teaching (NARST) Annual Meeting, Chicago, Illinois, April 5-7, 1982.

10. Academic Achievement, Learning Environment, Self- Esteem and Inquiry Skills of High School Students in Biology Taught in Cooperative-Investigative Small Groups (with H. Baird, V. Allman, R. Hertz-Lazarowitz) National Association of Research in Science Teaching (NARST), Annual Meeting, Chicago, Illinois, April 5-7, 1982.

11. "Small-group Cooperative Learning Methods: A Study of Outcome Differences" (with R. Hertz-Lazarowitz, Haifa University, Hugh Baird and James Jenkins, Brigham Young University). Second International Conference. The International Association for the Study of Cooperation in Education (IASCE). Brigham Young University, Provo, Utah, U.S.A., July 6-9, 1982.

12. "Cooperative-Investigative Learning Approach for Science Classroom: Workshop and Implementation Findings" (with R. Hertz-Lazarowitz). Bat-Sheva Seminar on Pre-service and In-service Education of Science Teachers, Hebrew University and Weizman Institute of Science, International Conference, Rehovot, Israel, January 3-13, 1983.

13. "A Workshop on the Individualized Audio-Tutorial Method for Biology Teachers" (with J. Huppert*). Bat-Sheva Seminar on Preservice and Inservice Education of Science, Teachers, Hebrew University and Weizman Institute of Science, International Conference, Rehovot, Israel, January 3-13, 1983.

14. "Individualized Audio-Tutorial Instruction in High School Biology. A Research Summary" (with J. Huppert). National Association of Research in Science Teaching (NARST), Annual Meeting, Dallas, Texas, U.S.A., April 5-8, 1983.

15. Text-book Pictures as Stimulators for High School Biology Students' Questions Fluency, Cognitive Levels and Content Interests" (with O. Meir). National Association of Research in Science Teaching (NARST), Annual Meeting, Dallas, U.S.A., April 5-8, 1983.

16. Academic and Social Gains of Three Types of Students in Cooperative Groups" (with R. Hertz-Lazarowitz, Haifa University, H. Baird and T. Jenkins. BYU, UT, U.S.A. American Educational Research Association (AERA), Montreal, Canada, April 11-15, 1983.

17. "Students and Teachers in the Development Implementation Process of an Individualized Audio-Tutorial Curriculum in Biology" (with J. Huppert). "Curriculum in the Making", an International Symposium, University of Haifa, March 26-30, 1984.

18. "Mode of Attending to Scientific Information by Students Who Study Biology for Matriculation Exams at a Low Level" (with S. Penso). National Association of Research in Science Teaching (NARST), 57th Annual Meeting, New Orleans, U.S.A., April 27-30, 1984.

19. "Implementation and Evaluation of an Audio-Visual Learning Unit in Biology at Junior High School in Israel" (with J. Huppert). International Society for Individualized Instruction; Conference Past, Present and Future. Ramada Renaissance, Atlanta, Georgia, U.S.A., October 18-21, 1984.

20. "Students' and Teachers' Attitudes Toward an Audio-Visual Learning Unit in Biology at Junior High Schools in Israel" (with J. Huppert). International Society for Individualized Instruction: Conference, Past, Present and Future. Ramada Renaissance, Atlanta, Georgia, U.S.A., October 18-21, 1984.

21. Diversified Modules in Biology Instruction for High School Students" (with J. Huppert). A., p. 68.

22. "The Development of a Video-Taped Group Test for Assessing Formal Operation Levels" (with M Shemesh). p. 132. A and B First International Conference on Education in the 90's. Equality, Equity and Excellence in Education, Tel Aviv University, Israel, December 16-19, 1984,

23. The Development and Implementation Process of Software Programs in Biology" (with J. Huppert). CAL. 85 International Symposium on Computer Assisted Learning. University of Nottingham, England, April 10-13, 1985.

24. "Actual and Preferred Classroom Learning Environment as Perceived by High School Science Students" (with A. Hofstein, Weizman Institute of Science, Rehovot). National Association of Research in Science Teaching (NARST), 58th Annual Meeting, French Lick Springs, Indiana, U.S.A., April 15-18, 1985, p. 92.

25. The Relationship Among Formal Reasoning Skills, Gender, Age, School Type and Cognitive Abilities of High School Students in Israel" (with M. Shemesh). National Association of Research in Science Teaching (NARST), 58th Annual Meeting in French Lick Springs, Indiana, U.S.A., April 15-18, 1958, pp. 52-53.

26. Academic Achievements, Inquiry Skills, Learning Environment and Self-Esteem of Tenth Grade Biology Students Instructed in a Cooperative Approach" (with G. Karsenty). The International Association for the Study of Cooperation in Education (IASCE), 3rd International Conference, University of Regina, Saskatchewan, Canada, July 14-18, 1985.

27. The Structure of a Learning Task in Biology for Peer-Tutoring in Cooperative Small-Group Inquiry Instruction" (with G. Karsenty). The International Association for the Study of Cooperation in Education (IASCE), 3rd. International Conference, University of Regina, Saskatchewan, Canada, July 14-18, 1985.

28. "The Use of Three Dimensional Models in Teaching 'The Cell' to Ninth Grade Biology Students in an Individualized Approach" (with R. Naim). The International Society for Individualized Instruction, Conference, Teaching Thinking Skills. The Role of Individualized Instruction, Rutgers University, Newark, N.J., USA, October 10-12, 1985.

29. Teachers' Workshop: "The Use of Three Dimensional Models in Teaching 'The Cell' to Ninth Grade Biology Students" (with R. Naim). National Science Teachers Association (NSTA), National Convention in San Francisco, U.S.A., March 26-29, 1986.

30. "Students' Cognitive Development and their Biology Learning Outcomes" (with M. Shemesh). National Association of Research in Science Teaching (NARST). 59th Annual Meeting. San Francisco, California, U.S.A., March 28-31, 1986, p. 140.

31. "Factors which Influence Students' Performance on Formal Reasoning Group Test" (with M. Shemesh). National Association of Research in Science Teaching (NARST). 59th Annual Meeting. San Francisco Meeting, San Francisco, California, U.S.A., March,28-31, 1986.p.45

32."The Effects of Formal Reasoning Tasks' Characteristics on Responses of Different Age Group Students" (with M. Shemesh). American Educational Research Association (AERA) Annual Meeting, San Francisco, California, USA, April 16-20, 1986.

33.The Growth Curve of Microorganisms, Development and Implementation of a Software Program in Biology" (with J. Huppert). International Conference on Courseware Design and Evaluation. Ramat Gan, Israel, April 8-13, 1986.

34. The Development of Formal Reasoning Skills. When, How and the Relation to Some Variables" (with M. Shemesh). 21st International Congress of Applied Psychology. Jerusalem, Israel, July 13-18, 1986.

35. "A Case Study of a Computer Assisted Learning Unit, The Growth Curve of Microorganisms" (with J. Huppert). International Society for Individualized Instruction (ISII). "Thinking Across the Disciplines." The 15th Annual Conference of ISII. Ramada Renaissance Hotel, Atlanta, Georgia, U.S.A., October 9-11, 1986.

36. "Students' Cognitive Level and Laboratory Experience in Biology" (with S. Witenoff). National Association of Research in Scince Teaching (NARST) 60th Annual Meeting. Washington, D.C., April 23-25, 1987.

37. "Cooperative Learning in Science: A Renew Movement in Education. International Council of Association for Science Education. CONASTA 37, Science Education and the Quality of Life: A World Issue, Canberra, Australia, 3-9 July, 1988, p. 67.

38. "An Analysis of the Cognitive Level and Biological Content Themes of Questions Asked by High School Students in Biology". (with O. Meir). Australian Science Education Research Association (ASERA), 19th Annual Conference, University of New South Wales, Sydney, Australia, 9-11 July, 1988, p. 40.

39. "Computer Assisted Learning in Biology: Students' Achievements by Gender and Cognitive Operational Levels" (with J. Huppert*). European Conference on Computers in Education – ECCE. Lusanne, Switzerland, 24-29, July, 1988.

40. "Inquiry Skills of Tenth Grade Biology Students in a Computer Assisted Learning Setting" (with Judith Yaakoby) National Association of Research in Science Teaching (NARST) 62th Annual Meeting. San Francisco, March 30-April 1, 1989.

41. Developing Instructional Procedures for Teaching pH Concept in the Biology Laboratory for Non-Formal 9th Grade Students (with Shulamit Witenoff), 2nd International Convention on Education, Interaction Between Research and Practice. Jerusalem, June 11-15, 1989.

42. Science Academic Achievement by Gender, Using Different Methods of Instruction (with Michal Shemesh). 2nd International Convention on Education, Interaction Between Research and Practice. Jerusalem, June 11-15, 1989.

43. Students' Achievement and Cognitive Levels in a Computer Assisted Learning Unit in Microbiology (with M. Shemesh). Tenth Biennial Meeting of International Society for the Study of Behavior Development (ISSBD), Jyvaskyla, Finland, 9-13, July 1989.

44. The Integration of Computer Assisted Learning in Existing Curriculum in 10th Grade Biology: Students' Achievement by Method and Gender (with J. Yaakobi). Third European Conference for Research on Learning and Instruction (EARLI). Madrid, Spain, September 4-7, 1989.

45. Learning biology in a Cooperative Mode in 9th Grade Heterogeneous Classrooms: Students' Achievement by Method and Gender (with M. Galon). 1990 Annual Meeting, National Association of Research in Science Teaching (NARST). Atlanta, Georgia, April 8through11,1990.

46. The Use of the SLEI to Compare the Psychological Environment of the Chemistry and Biology Laboratory Classes in Israel (with A. Hofstein and I. Cohen). Symposium on "Learning Environment of Science Laboratories", 1990 Annual Meeting, National Association of Research in Science Teaching (NARST). Atlanta, Georgia, April 8 through 11, 1990.

47. Learning Biology in a Cooperative Setting: Ninth Grade Students' Achievement and Cognitive Reasoning. 1990 International Convention on Cooperative Learning. The International Association for the Study of Cooperation in Education (IASCE). Baltimore Convention Center, Baltimore, Maryland July 6-8, 1990.

48. Career Anchor Orientation of Secondary Science Teachers and Student-Teachers in Biology (with J. Carmi). The 5th Conference of the International Study Association on Teacher Thinking, Theoretical and Practical Implications of Research on Teacher Thinking. Ben-Gurion University of the Negev, Beer-Sheva, Israel, December 9-14, 1990 & ISATT Conference, University of Surrey, England, September 23-27, 1991.

49. Training Student-Teachers in the Use of Computers in Science Classrooms" (with J. Huppert). Annual Meeting of the National Association for Research in Science Teaching (NARST) Fontana, Lake Geneva, Wisconsin, April 7-10, 1991.

50. The Logistic Problems of Developing and Implementation of Learning Units in Biology for Small Group Instruction in High Schools. 4th European Conference for Research on Learning and Instruction, (EARLI). Turku, Finland, 24-28 August 1991.

51. Teaching "Nuclear Radiation" in an Integrative Approach to 10th Grade Biology Students: Academic Achievement and Attitudes (with M. Nachshon and M.S. Lomask). The 65th Annual Meeting of the National Association for Research in Science Teaching (NARST). Cambridge Hyatt Regency Hotel, Boston, Massachusetts, USA, March 21-25, 1992.

52. The Tutorial Software "The Synapse" for the 10th Grade Biology Students. Description and Naturalistic Evaluation(with J. Huppert). The 65th Annual Meeting of the National Association for Research in Science Teaching (NARST). Cambridge Hyatt Regency Hotel, Boston, Massachusetts, USA, March 21-25, 1992.

53. Teaching and Learning Science in New Settings (with J. Huppert). International Conference on Science Education in Developing Countries: From Theory to Practice, Jerusalem, January 3-7, p. 18, 1993.

54. Development of the Concept of "Life" as held by Elementary and High School Students (with Hanna Bar-Yoseph*). International Conference on Science Education in Developing Countries: From Theory to Practice, Jerusalem, January 3-7, p. 187, 1993.

55. Teaching the Enzymes Topic to Ninth Grade Students: Academic Achievement, Cognitive Levels of Biology Test Questions and Students' Reasoning Stages (with Miriam Welicker*). International Conference on Science Education in Developing Countries: From Theory to Practice, Jerusalem, January 3-7, p. 242, 1993.

56. Technology as a Part of Human Culture in a STS Pre-Service Course for Biology Student-Teachers. A Case Study (with J. Huppert*). The 66th Annual Meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA, April 15-19, p. 262, 1993.

57. Exemplary Biology Teachers in Arab High Schools in Israel (with A. Caesar, & A. Hofstein). The 67th Annual Meeting of the National Association for Research in Science Teaching (NARST), Anaheim, CA, USA, April 26-29, p. 99, 1994.

58. Teacher Impact on Students' Choice of Chemistry as an Advanced Course (with S. Avishay, & A. Hofstein). The 67th Annual Meeting of the National Association for Research in Science Teaching (NARST), Anaheim, CA, USA, April 26-29, p. 84, 1994.

59. An Interdisciplinary Course in Science: Freshman-level Course in the History and Cultural Implications of Science for Non Majors (with J. Bristol and C. Lieb). National Science Foundation (NSF), Meeting, Washington, USA, May, 1994.

60. Teaching Strategies, Students' Classroom Learning Environment and Students opting for an Advanced course in High school Chemistry." Annual Meeting of the NARST, March 26-29, 1994, Hyatt Regency Alicante, Anaheim, CA, USA.

61 Teaching a Thematic Course in Science at the College Level. Students' Academic Achievement and Affective Outcomes (with J. Bristol, C. Lieb and A. Dean). Conference of the International Society for Exploring Teaching Alternatives (ISETA), Arizona State University, Tempe, Arizona, USA, October 12-14, 1994.

62. The Effect of Teaching the Cell Topic Using the Jigsaw Method on Students' Achievement and Learning Activity (with Y.J. Dori* & O. Yaroslavsky*). The 68th Annual Meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA, USA, April 23-25, 1995, p. 191.

63.Learning Environment and Academic Achievement of High School Students Who Learned Evolution in a Cooperative Mode (with Salit Ron). The 68th Annual Meeting of the National Association for Research in Science Teaching (NARST), San Francisco, CA, USA, April 23-25, 1995, p. 164.

63a. Performance Tasks and Performance Assessment of High School Students Studying Primary Prevention of Cardiovascular Diseases (with Miriam Welicker). The 68th Annual Meeting of the National Association for Research in Science Teaching (NARST), San – Francisco, CA, USA, April 23-25, 1995, p. 186.

64.Industry and Environment: A Multidisciplinary Project Centered Curriculum in a Community School (with Y.J. Dori* and R. Tal). The International Conference on Industry Education Initiatives in Chemistry, York, U.K., August-September 1995.

65. High Schools' Students Perceptions about Technology in Israel (with J. Huppert*, S. Straus & J. Cohen). European Conference on Educational Research (ECER), European Educational Research Association, University of Bath, England, September 14-17, 1995.

66. Nature, Environment and Industry: A Multidisciplinary Project-centered Curriculum for Sixth Graders in a Community School (with R. Tal* and Y.J. Dori). The Second Jerusalem International Science and Technology Education Conference, Jerusalem, January 8-11, 1996, pp. 63-64.

67. Technology Education and Pupils' Perception of Technology (with J. Huppert*, Israel, and V. Cickova and J. Stoklase, Prag, Czech Republic). The Second Jerusalem International Science and Technology Education Conference, Jerusalem, January 8-11, 1996, pp. 69-70.

68. A Case Study as a Tool for Evaluating Industry-Environment Project (with R. Tal* and Y.J. Dori). The 69th Annual Meeting of the National Association for Research in Science Teaching (NARST), St. Louis, MO, USA, March 31-April 4, 1996, p. 190.

69. Do Peer Tutors Achieve Higher Academic Achievement than their Tutees While Learning Evolution in a Cooperative Mode? (with S. Ron*). The 69th Annual Meeting of the National Association for Research in Science Teaching (NARST), St. Louis, MO, USA, March 31-April 4, 1996. p. 173.

70. The Growth of Students' Pedagogical Content Knowledge During their Field Experience in Schools (with S. Penso*). The Second International Conference on Teacher Education: Stability, Evolution and Revolution, Wingate Institute, Mofet, Israel, June 3o-July 4, 1996 (Hebrew version, p. 191; English version, p. 249).

71. A New Approach on Educating Science Teachers for Elementary, Junior and High Schools (with A. Pacheco, J. Bristol and A. Dean). The Second International Conference on Teacher Education: Stability, Evolution and Revolution, Wingate Institute, Mofet, Israel, June 3o-July 4, 1996 (Hebrew version, p.149; English version, p. 198).

72. Industry-Environment Projects: An Evaluation Approach in Environmental Education (with Tal Revital* and Y.J.Dori) The Second International Conference on Teacher Education: Stability, Evolution and Revolution, Wingate Institute, Mofet, Israel, June 3o-July 4, 1996 (Hebrew version, p. 124; English version, p. 345).

73. The Classroom Learning Environment of High School Students who Studied Evolution in a Cooperative Mode. (with Salit Ron) International Conference on Science, Mathematics & Technology Education and National Development, Hanoi, Vietnam, January 6-9, 42c, 1997.

74. Student-Teachers' Pedagogical Content Knowledge- How they Evaluate the Lesson after it has been Taught? (with Sofia Penso*) International Conference on Science, Mathematics & Technology Education and National Development, Hanoi, Vietnam, January 6-9, 42a, 1997.

75. Multi-Dimensional Learning Setting in Health Education. (with Miriam Welicker*) International Conference on Science,Mathematics & Technology Education and National Development, Hanoi, Vietnam, January 6-9, 42b,1997.

76. Science Instruction in the Cooperative Mode and Classroom Learning Environment. (with Yehudit Dori and Jehuda Huppert) International Conference on Science, Mathematics & Technology Education and National Development, Hanoi, Vietnam, January 6-9, 33,1997.

77. How Do Students Perceive a Multi- Dimensional Performance Assessment During Tasks Activity in Biology (with M. Welicker*). The 70th Annual Meeting of the National Association for Research in Science Teaching (NARST), Oak Brook, Chicago, USA, March,21-24,1997, p. 204.

78. Learning Science in Cooperative Mode in Junior and Senior High Schools. (with Yehudit Dori and Jehuda Huppert). The 70th Annual Meeting of the National Association for Research in Science Teaching (NARST), Oak Brook, Chicago, USA, March, 21-24, 1997,p. 143.

79. Students' Pedagogical Content Knowledge: How they Determine the Lesson Plan ? (with Sofia Panso*). European Conference for Research on Learning and Instruction, (EARLI). Athens, Greece, August, 1997.

80. Choices and Preferences of Biology Topics by High School Students (with Iris Wagner-Gershgoren*).The 71st Annual Meeting of the National Association for Research in Science Teaching (NARST), San Diego, CA, USA, April,19-22, 1998.

81. Students' Perceptions of Performance Tasks as a Multi-Dimensional Learning/Instructional Strategy in Biology (with Miriam Welicker*). The 71st Annual Meeting of the National Association for Research in Science Teaching (NARST), San Diego, CA, USA, April, 19-22, 1998.

82. Industry Environment Projects as Learning/Teaching Approach in STS (with Revital Tal* and Yehudit Dori**). The 71st Annual Meeting of the National Association for Research in Science Teaching (NARST), San Diego, CA, USA, April,19-22, 1998.

83. Learning Units as Teaching and Evaluation Tools in Classroom and Laboratory Settings (with Miriam Welicker *).* p.45

84. Teaching Information Skills in Biology with Computers (with Abigail Barzilai*)** p.54

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86. Teaching/Learning Science in a Thematic Mode: Students' Creativity and Teacher Perceptions (with Michal Nachshon*)** p.66

87. Choices and Preferences of Biology Topics by High School Students as Partners in Curriculum Design Decisions (with Iris Wagner-Gershgoren*)** p.71
* Principal investigator

** 83 to 87. Papers presented at the International Workshop on Science Teachers Education toward the New Millennium. Israel Institute of Technology - Technion. Haifa, Israel, January, 5-6, 1999.

88. The Relationships between Science Content Knowledge, Secondary School Science Curricula and Assessment (with Miriam Welicker and J. Huppert) 8th European Conference for Research on Learning and Instruction, (EARLI). Goteborg, Sweden, August 24-28 1999.

89. Research in Science, Content Knowledge Structure and Secondary School Curricula. (with J. Huppert) The 73rd, 2000 Annual Conference of the National Association for Research in Science Teaching (NARST), New Orleans, LA. USA. April 28-May 1, 2000. p. 217

90. Awareness to Social Dilemmas while Teaching Genetics Amongst High School Biology Teachers. (with Ilit Bloch) The 73rd Annual Conference of the National Association for Research in Science Teaching (NARST), New Orleans, LA. USA , April 28-May 1, 2000, p. 141

91. Development and Field Testing of a Thematic Module " Ionizing Radiation, Uses , Effects and Creativity of 11th Grade Students (with Michal Nachshon*) p. 49-52

92. STS-Health Performance Tasks: Academic Achievement and Attitudes to the Active Inquiry Learning Strategy (with Miriam Welicker*) p. 165- 167

93. Teaching "Microorganisms" in a STS Mode in 9th Grade (with Mahmood Khalil*) p. 280-282

91, 92, 93, Papers presented at the 1st IOSTE Symposium in Southern Europe. "Science and Technology Education: Preparing Future Citizens" Paralimni, Cyprus, 29th – 2nd May, 2001

94. Teaching Information Skills in Biology with Educational Technology (with Abigail Barzilai*) Paper presented at the 9th European Conference for Research on Learning and Instruction, (EARLI). Fribourg, Swizerland, 28th , August –1st, September, 2001

95. Ionizing Radiation, Uses and Biological Effects: A Thematic Module for 11th Grade Students; Academic Achievements and Creativity.(with Michal Nachshon*)

96. Developing a Learning Unit on the Science-Technology-Environment, Peace-Society- Approach (STEPS): Students' Cognitive Achievements and Attitudes toward Peace. (with Mahmood Khalil *)

95, p. 193; & 96, p. 165;. Papers presented at the Annual International Conference of the National Association for Research in Science Teaching (NARST), New Orleans, LA. USA, April 7-10, 2002, p. 193

97. Academic Achievement and the Classroom Learning Environment of High School Students who Studied Evolution in a Cooperative Mode (with Salit Ron & Rachel Hertz-Lazarowitz)

98. Academic Achievement of Peer Tutors and their Tutees who Taught and Learned in a Cooperative Mode. (with Salit Ron)

97 & 98, Papers presented at the International Association for the Study of Cooperation in Education. University of Manchester. Institute of Science and Technology, Manchester, UK. June 20 – 24, 2002

99. Why Teach Science and Mathematics in the Cooperative Mode.

100. Cooperative Learning in Small Groups: Models and Results.

99 & 100, Papers Presented at the 2nd International Conference on Science Education. The Cyprus Pedagogical Institute and University of Cyprus 11th-13th, November 2002

101. Issues and Trends in Science Education: An Historical Perspective Colloquium. With Sandra Abell*, Abd-El-Khalick, F., Aikenhead, Kahle J. " Learning in Informal and Formal Contexts". Annual International Conference, National Association for Research in Science Teaching, San Francisco, April 3-6, 2006. p. 39 and p. 336.

102. Issues and Trends in Science Education from an Historical Perspective. p. 33.

103. An Inquiry on Higher-Order Thinking Skills of Students who Study the Unit "Treasures of the Sea" within "Science and Technology for All". With Danay Rakefet*. p. 79.

104. Choosing and Evaluating High School Biology Textbooks. With Iris Wagner-Gershgoren. p. 81.

102, 103,104, Papers presented at Joint North American- European and South American Symposium. "Science and Technology Literacy in the 21st Century.
Richmond, Virginia, USA; Nicosia, Cyprus; and Lima, Peru. May 31-June 4, 2006.

105. Microorganisms Learning Unit Developed in a STEPS Mode; Cooperative, Collaborative, Affective and Cognitive Achievements of Ninth Grade Students. P 51. " Cooperative Learning in Multicultural Societies: Critical Reflections. January 19-22, 2008 Turin, Italy

106. Sharpening the Edge in Science. Learning unit, "Microorganisms ". Integrative issues ,STEPS Academic Achievement, and Attitudes toward Environment and Peace. (with Khalil Mahmood*). Science: Bridge to the Future. NSTA, National Conference on Science Education. 27-30.3.08. Boston, USA. 2008

107.Khalil, M., & Lazarowitz, R. The Professional Development of College Teachers trough the use of Portfolio Assessment. International Conference "Inspiration and Innovation in Teaching and Teacher Education." University of Newfoundland, St.John's Newfoundland, Canada. 14-16, October, 2009.

108.Hertz-Lazarowitz, R., Lazarowitz, R., & Khalil, M. "Identity development of Arab and Jewish Teachers: An agenda for teacher education in multicultural settings." International Conference "Inspiration and Innovation in Teaching and Teacher Education." University of Newfoundland, St.John's Newfoundland, Canada. 14-16 October, 2009.

109. R. Lazarowitz & Rachel Hertz-Lazarowitz. "The Structure Reform of the High School Science Curricula: From the 20th to the 21st Century." International Conference, PHOENIX-PHE 2010. Transilvania University of Brasov, Bran, 23-25, September, 2010.

110. R. Lazarowitz & Anton Caesar* "Cognitive Preferences and Critical Thinking Skill of 11th Grade Biology Students" EAPRIL Conference 2010, Challenges in Professional Learning Across the Disciplines, Lisbon, Portugal. 24-26, November, 2010.

111. R. Lazarowitz & Anton Caesar* "Students' Cognitive Operational Stages and Students' and Teachers' cognitive Preferences" EARLI, International Conference, "Education for a Global Networked Society" Exeter Univ. UK. August, 29th- Sep.3rd, 2011. UK.

112. R. Lazarowitz & Rachel Hertz-Lazarowitz. "Segregated Social Networks: Predicting the Negative Context of Organization at University". **And chair of session, "Holes of Social Capital". Negatives Ties and Social Networks Workshop. CORVINUS UNIVERSITY, Budapest, 19-20 April 2012.

113. R. Lazarowitz & Mahmood Khalil*. "The Cognitive Structure of the Microorganisms Learning Unit and Students' Outcomes". The 10th Annual Conference of the Bulgarian Comparative Education Society, Kyustendil, Bulgaria, 12- 15, June 2012.

114. R. Lazarowitz , Rachel Hertz-Lazarowitz, Mahmood Khalil & Salit Ron. " Designing Cooperative Learning in the Science Classroom. Integrating the Peer Tutoring Small Investigation Group (PTSIG) within the Six Mirrors of the Classroom Model." XI Annual International Conference of the Bulgarian Comparative Education Society, Plovdil, Bulgaria, 14-17, May 2013.

115. R. Lazarowitz. " High School Students' Laboratory Reports in Biology" Ireland International Conference on Education, Dublin, Ireland, (IICE-2014) 27-30 October, 2014.

116 R.Lazarowitz &, Rachel Lazarowitz. "The Structure of the High School Biology Curricula from the 20th to the 21st Century." XIII Annual International Conference of the Bulgarian Comparative Education Society, Sofia, Bulgaria. Quality. Social Justice and Accountability in Education Worldwide. 10-13, 2013. Sofia, Bulgaria,2015.

PAPERS PRESENTED at PROFESSIONAL CONFERENCES in ISRAEL and USA

Reuven Lazarowitz:

1.Teaching Biology in Secondary Schools in Israel. Conference of the Zoological Society of Israel. School of Education of the Kibbutz Movement, Oranim, Kyriat Tivon, Israel, April, 18-19, 1976.

2. Characteristics of Secondary Science Teachers who Hold Favorable Attitudes Toward Teaching Science by Inquiry Strategies. Conference of the Israel Education Research Association, (IERA). School of Education, Tel Aviv University, Israel, April, 1976, p. 17

3. Ecological Subjects in Biology Instruction in Secondary Schools in Israel. The Eight Scientific Conference of the Israel Ecological Society. The Israel Institute of Petroleum and Energy. Tel Aviv, May, 30-31, 1977. p. 1

4 The Development and the Evaluation of Audio-Visual Learning Units in Biology for Junior High School Students. (with J. Huppert and R. Naim). Abstracts: The Fourth Conference on Curriculum Development in Israel. School of Education, Tel Aviv University, and Ministry of Education and Culture, Curriculum Division, February, 25-26, 1979. p. 43

5. Relationship of Students, High School and University Teachers Toward Inquiry Approach. (with P. Tamir). Fourth Convention Abstracts. Israel Educational Research Association. (IERA), Haifa University, March, 4-6, 1980, p. 54 (English edition), p. 48 (Hebrew edition).

6. Science Interests of Secondary School Students in Utah. Research report. (with H.

Baird and V. Allman. Brigham Young University). Utah State Office of Education, Salt Lake City, Utah, USA. November 10, 1980.

7. Preferences and Choices of Science Subjects by Junior and High School Students in Utah. (with H. Baird and V. Allman. Brigham Young University). Conference of National Council of Teachers of Mathematics, Salt Lake City, Utah, USA. November. 13-15, 1980.

8 Relationships Between Requiring Learning Activities in Earth Science Units and Pupil Achievement. (with Don, Densley and H. Baird, Brigham Young University). Abstracts of the 59th Annual Meeting of California Educational Research Association. San Mateo, CA, USA, November, 20-21, 1980, p. 9

9.Using Mastery Learning to Help High School Biology Students Develop Inquiry Skills. (with Judy Scheid and H. Baird, Brigham Young University,) Abstracts: the 59th Annual Meeting of California Educational Research Association. San Mateo, CA, USA, November, 20-21, 1980, p. 40

10. Science Interest of Secondary School Students in Utah. (with H.Baird and V. Allman. Brigham Young University). Science Energy Conference, Utah State Science Teachers Association and Energy and Man's Environment, Salt Lake City, Utah, USA, March, 20-21,1981.

11.Characteristics of High School Teachers, Students and Professors Related to Instruction and Learning by Inquiry (with P. Tamir). Sixth Annual Meeting; Abstracts, Israel Educational Research Association (IERA), Tel-Aviv University, February 7-8, 1982, English version: p. 40; Hebrew version: p. 41.

12. The Use of Pictures as Stimulators for Students' Questions Fluency, Cognitive Levels and Content Interests in Biology (with O. Meir). Sixth Annual Meeting Abstracts, Israel Educational Research Association (IERA), Tel-Aviv University, February 7-8, 1982, English version: p. 45; Hebrew version: p. 42.

13. The Use of a Video-Taped Group Test to Identify Formal Reasoning Skills (with M. Shemesh and M. Moore). The 20th Scientific Conference of the Israel Psychologists. Association, Bar-Ilan University, Ramat-Gan, February 4-6,1985, p. 117.

14. Role Perceptions and Career Orientations of High School Science-Teachers and Student-Teachers (with J. Carmi). Improving University Teaching. The 13th International Conference. The University of Haifa & the University of Maryland. University College. Haifa, Israel. June 29-July 2, 1987.

15. The Integration of Computer Assisted Learning in Existing Curriculum in 10th Grade Biology: Students' Academic Achievement, Inquiry Skills and Cognitive Operational Stages (with J. Yaakobi and J. Huppert). Paper presented at the 7th Annual Meeting of The Israel Association for Computers in Education, Kfar Hamacabia, Israel, April 3-4, 1990.

16. Small Group Instruction: A method of Social Interaction in the Educational Process (with J. Huppert). Israel Educational Research Association (IERA), Bar-Ilan University, June 18-19, 1991.

17. The Learning Environment in Biology and Chemistry Laboratories (with A. Hofstein and I. Cohen). Israel Educational Research Association (IERA), Bar-Ilan University, June 18-19, 1991,

p. 108.

18 The Development and Use of a Software "Synopsis" in High School Biology (with J. Huppert). The 8th Annual Meeting of the Israel Association for Computers in Education, Kfar Hamacabia, Israel, 8-9 July, 1991.

19. The Use of the Computerized Meaningful-Web, SEMNET, for Preparing Lessons Plan in Biology. (With J. Huppert). The 11th Annual Meeting of the Israel Association for Computers in Education, Congress Center, Exhibition Gardens, Tel-Aviv, Israel, March 21-22, 1994.

20. Teaching the "Evolution" Topic to High School Students in Small Investigative Groups (with Salit Ron). Israel Education Research Association (IERA), Hebrew University, February 5-7, 1995, p. 205 (Hebrew version).

21. Teaching the "Cell" Topic in Small Groups Using the Jigsaw method (with Y.J. Dori & Orly Yaroslavsky). Israel Education Research Association (IERA), Hebrew University, February 5-7, 1995, p. 121 (Hebrew version).

22. Achievement, Knowledge and Behavior Patterns of High School Students who Learned Cardio-Vascular Diseases, and Their Prevention Topics (with Miriam Welicker). Israel Education Research Association (IERA), Hebrew University, February 5-7, 1995, p. 105 (Hebrew version).

23. The Integration of Tutorials Guided Software in Biology Teaching (with J. Huppert). The 12th Annual Meeting of the Israel Association for Computers in Education, Congress Center, Exhibition Gardens, Tel-Aviv, Israel, April 10-11, 1995.

24. Industry-Environment Projects - Teaching Strategy in Environmental Education (with R. Tal and Y.J. Dori). The 26th Conference of the Israel Association for Ecology and Environmental Sciences, Technion, Haifa, Israel, July 1995.

25. Learning Tasks. The Impact of External and Emotional Stress on the Hearth and Cardio-Vascular Vessels Function and their Health. (with Miriam Welicker*) The Second National Conference of the High School Biology Teachers in Israel. The Central Ideas and Concepts in Biology Instruction. Shefaym, June, 26, 1996, (Hebrew, p.11).

26. "Development of a Multi-Dimensional Instrument for Students' Evaluation During Performance Tasks Activity on "Risk Factors of Cardiovascular Diseases" (with M. Welicker*). The Second International Conference, "Teacher Education: Stability Evolution and Revolution" Mofet Institute, June, 30-July 4, 1995, Israel.

27. Case Studies Dealing with Aquifer as Teaching and Assessment Method. (with R. Tal* and Y.J. Dori). The 28th Conference of the Israel Association for Ecology and Environmental Sciences, Haifa University, Haifa, Israel, July 1997.

28. Students' Perceptions of Performance Tasks on Teaching-Learning Strategies in Biology Lessons. (with Miriam Welicker), The international Conference of Teachers and Educators in Israel and Diaspora "Education on the Time Perspective" International Congress Center. Haifa, July, 7-9, 1998.

29. Authentic Tasks on the Topic "Factors on the Heart and Cardio-Vascular Vessels Diseases": Students' Achievement and Attitudes Toward Inquiry-Active Learning. Israel

Education Association (IERA), The Research and Implementation in Education in A Changeable World. Tel Aviv University, Israel, October, 25-26, 2000. pp. 228-233.

LIST OF PUBLICATIONS

THESES

Ph.D. The Development and Use of a Technique for Determining the Inquiry Teaching Attitudes of Secondary School Science Teachers. Science Education Center, University of Texas at Austin, Prof. Addison E. Lee, Advisor. 1973.

M.Sc. The Effect of Gibberellin and Kinetin on the Germination of Some Photosensitive Desert Seeds and Growth of their Seedlings. Department of Botany, Faculty of Biology, The Hebrew University of Jerusalem, Israel. Prof. Alexandra Mayber Polyakov, Advisor. 1960

PAPERS IN REFEREED JOURNALS

1. Lazarowitz, R., Polyakov, A.M. (1960). The Effect of Gibberellin and Kinetin on the Germination of Some Photosensitive Desert Seeds as Compared with that of Light. Phython,15, 103-107.

2. Barufaldi, J.P., Huntsberger, J.P., & Lazarowitz, R. (1976). Changes in Attitude of Preservice Elementary Education Majors Toward Inquiry Teaching Strategies. School Science and Mathematics, LXXV1, 5, 671, 420-424. USA

3. Lazarowitz, R., & Lee, A.E. (1976). Measuring Inquiry Attitudes of Secondary Science Teachers. Journal of Research in Science Teaching, 13(5), 455-460. USA

4. Lazarowitz, R. (1976). Does Use of Curriculum Change Teachers' Attitudes Toward Inquiry? Journal of Research in Science Teaching, 13(6), 547-552. USA

5. Lazarowitz, R., & Weinberg, H. (1977). Behavioral Objectives in Biology Instruction. Studies in Education, Haifa University Press, 14, 119-132 (in Hebrew with English summary, p. XI). Israel

6. Lazarowitz, R., Barufaldi, J.P., & Huntsberger, J.P. (1978). Student-Teacher Characteristics and Favorable Attitudes Toward Inquiry. Journal of Research in Science Teaching, 15(6), 559-566. USA

7. Lazarowitz, R., & Lee, A.E. (1978). Characteristics of Science Teachers and Attitudes Toward Inquiry. The Texas Science Teacher Journal, 7(2), 16-19. USA

8. Huntsberger, J.P., Lazarowitz, R., & Barufaldi, J.P. (1978). Attitudes Toward Inquiry (of Preservice Elementary Education Majors Correlated with Opinion on Education and Knowledge of Science). The Texas Science Teacher Journal, 7(4), 21-24. USA

9. Lazarowitz, R., & Hertz-Lazarowitz, R. (1979). Choices and Preferences of Science Subjects by Junior High School Students in Israel. Journal of Research in Science Teaching, 16(4), 317-323. USA

10. Lazarowitz, R., Globerson, T., & Weinberg, H. (1979). Relationships Between Selected Variables and Junior High School Students' Biological Classification Ability. Alberta Science Education Journal, 17(3), 29-35. Canada

11. Huppert, J., & Lazarowitz, R. (1979). Implementation of an Audio-Tutorial Learning Unit in Biology, "The Cell", in Junior High Schools. In P. Tamir, et al. (Eds.) Curriculum Implementation and its Relationship to Curriculum Development in Science. Israeli Science Teaching Center, Hebrew University, Jerusalem, Israel, 155-156. Israel

12. Lazarowitz, R., & Huppert, J. (1980). Developing Creative Thinking of Secondary Students in Biology Subjects. The American Biology Teacher, 42(4), 226-228. USA

13. Lazarowitz, R., & Tamir, P. (1980). How do Secondary Science Teachers, Student-Teachers and University Professors Relate to Teaching Science by Inquiry? Studies in Education. Haifa University Press, 27, 95-104 (in Hebrew with English summary). Israel

14. Lazarowitz, R. (1981). Correlation of Junior High School Students' Age, Gender and Intelligence to Ability Construct Classification in Biology. Journal of Research in Science Teaching, 18(1), 15-22. USA

15. Lazarowitz, R., & Huppert, J. (1981). The Development of Individualized Audio Visual Learning Units in Junior High School Biology and the Students' Achievement. European Journal of Science Education, 3(2), 195-204. UK

16. Lazarowitz, R., & Huppert, J. (1982). Comparison of Grade Distribution Between Junior High School Students Taught by the Individualized Audio-Tutorial and the Frontal Classroom Laboratory Method. School Science and Mathematics, LXXXII, 2, 716, 111-117. USA

17. Baird, H.J., Lazarowitz, R., & Sheid, J. (1982). Measuring Science Inquiry Skills of High School Biology Students Instructed with BSCS Green Version. Alberta Science Education Journal, 19(1), 45-52. Canada

18. Lazarowitz, R., & Huppert, J. (1982). The Use of IAT in Junior High Schools. Alberta Science Education Journal, 19(2), 42-54. Canada

19. Lazarowitz, R. (1982). Teaching Biology Concepts to Disadvantaged Fourth Grade Pupils. Journal of Biological Education, 16(1), 59-64. UK

20. Bakshi, T., & Lazarowitz, R. (1982). A Model for Interdisciplinary Ecology Project in Secondary Schools. Environmental Education and Information, 2(3), 203-213. UK

21. Lazarowitz, R., Naim, R., & Baird, H.J. (1983). Reading Scientific Material: A Study in Affect Change Toward Biological Creatures. Research in Education, 30, 25-37. UK

22. Baird, H.J., Lazarowitz, R. & Allman, V. (1984). Science Choices and Preferences of Middle and Secondary School Students in Utah. Journal of Research in Science Teaching, 21(1), 47-54. USA

23. Hertz-Lazarowitz, R., Baird, H.J., Webb, D.C., & Lazarowitz, R. (1984). Student-Student Interaction in Science Classrooms: A Naturalistic Study. Science Education, 68(5), 603-619. USA

24. Shemesh, M., & Lazarowitz, R. (1985). Formal Reasoning Skills of Secondary School Students as Related to Gender, Age, School Type and Learning Abilities. ERIC Clearinghouse for Science, Mathematics and Environmental Education. Columbus,Ohio, ED 256, 568 SE 045 492, 2-22. USA

25. Lazarowitz, R., Baird, H.J., & Allman, V. (1985). Reasons Why Elementary and Secondary Students Do and Do Not Like Science. School, Science and Mathematics, 8, 746, 663-673. USA

26. Penso, S., & Lazarowitz, R. (1985). Mode of Relating to Scientific Information by Students who Study at a Low Biology-Matriculation Exam Level. Studies in Education. Haifa University Press, 42, 111-136 (in Hebrew with English summary, pp. XII-XIII). Israel

27. Hofstein, A., & Lazarowitz, R. (1986). A Comparison of the Actual and Preferred Classroom Learning Environment in Biology and Chemistry as Perceived by High School Students. Journal of Research in Science Teaching, 23(3), 189-199. USA

28. Lazarowitz, R., Dreyfus, A., & Jungwirth, E. (1986). Consonances and Dissonances between Student-Teachers and Cooperative Teachers in Secondary School Biology. Research in Education, 36, 27-38. UK

29. Lazarowitz, R., & Huppert, J. (1987). The Affective Domain of Junior High School Students in an Audio-Tutorial Biology Setting. International Journal of Science Education, 9(1), 67-77. UK

30. Shemesh, M., & Lazarowitz, R. (1988). Formal Reasoning Skills of Secondary School Students and their Subject Matter Preferences. School, Science and Mathematics, 88, (5), 766, 376-389. USA

31. Shemesh, M. & Lazarowitz, R. (1988). The Interactional Effects of Students' Cognitive Levels and Test Characteristics on the Performance of Formal Reasoning Tasks. Research in Science and Technological Education, 6(1), 79-89.UK

32. Lazarowitz, R., Hertz-Lazarowitz, R., Baird, H.J., & Bowlden, V. (1988). Academic Achievement and On Task Behavior of High School Biology Students Instructed in Cooperative Small Investigative Groups. Science Education, 72(4), 475-487. USA

33. Lazarowitz, R., Baird, H.J., & Sheid, J. (1988). Using Mastery Learning to Teach Secondary Biology Pupils Inquiry Skills. Alberta Science Education Journal, 22(1), 19-26. Canada

34. Shemesh, M. & Lazarowitz, R. (1989). Pupils' Reasoning Skills and their Mastery of Biological Concepts. Journal of Biological Education, 23(1), 59-63. UK

35. Lazarowitz, R., & Karsenty, G. (1989). Peer-Tutoring in Investigative Group Instruction vs. Frontal Instruction in Biology: Academic Achievement, Inquiry Skills, Classroom

Climate, and Self-Esteem. Studies in Education. Haifa University Press, 51/52, 131-156, (in Hebrew with English Summary, pp. VIII-IX). Israel

36. Lazarowitz, R. & Carmi, J. (1988). Secondary Science Teachers' Role Perceptions in Science Education. The Australian Science Teachers Journal. 34(4), 27-34. Australia

37. Lazarowitz, R., & Meir, O. (1989). High School Students' Questions in Biology: Cognitive Levels and Content Themes. Research in Science Education. ASERA, 18(9), 9-21. Australia,

38. Lazarowitz, R., & Witenoff, S. (1990). Teaching the pH Concept to Non-Formal Operational Students in the 9th Grade Biology Laboratory. Research in Education, 44, 21-38. UK

39. Huppert, J., & Lazarowitz, R. (1990). Pupils Abilities and Academic Achievement in an Individualized Biology Curriculum. Research in Science and Technological Education. 8(2), 117-131. UK

40. Huppert, J., & Lazarowitz, R. (1990). Classroom Management Problems in the Implementation Process of an Audio-Tutorial Program in Biology. Alberta Science Education Journal, Canada

41. Huppert, J., & Lazarowitz, R. (1991). Student-Teachers' Attitudes Toward Computer Use in Science Classrooms. Journal of Computing in Teacher Education, 7(3), 12-16. USA

42. Lazarowitz, R. (1991). Learning Biology Cooperatively: An Israeli Junior High School Study. Cooperative Learning.The Magazine for Cooperation in Education, 11(3), 19-21. USA

43. Shemesh, M., Eckstein, S., & Lazarowitz, R. (1992). An Experimental Study of the Development of Formal Reasoning Among Secondary School Students. School, Science and Mathematics, 92(1), 26-30. USA

44. Huppert, J., Simchoni, D., & Lazarowitz, R. (1992.) Human Health and Science. A Model for a STS High School Biology Course. The American Biology Teacher, 54(7), 395-400. USA

45. Lazarowitz, R., & Penso, S. (1992). High School Students' Difficulties in Learning Biology Concepts. Journal of Biological Education, 26(3), 215-223. UK

46. Baird, H.J., Lazarowitz, R., & Hertz-Lazarowitz, R. (1992). Academic Achievement and Social Gains of Differing Status Students Learning Science in Cooperative Groups; Cooperative Learning: The Magazine for Cooperation in Education, 13(1), 21-23.USA

47. Lazarowitz, R., Moore, M., & Vinnik, H., (1992). The Role of Social Aspects in Junior High School Science Teaching, in M. Eilan, A. Levy, M. Zilberstein & R. Raz, (Eds). Theory to Practice in Curriculum Planning. Dept. of Curriculum Development, Ministry of Education and Culture, Maalot Publ., Jerusalem, Israel, 7, 126-138. Israel

48. Lazarowitz, R., & Huppert, J. (1993). Science Process Skills of 10th Grade Biology Students in a Computer Assisted Learning Setting. Journal of Research on Computing in Education, 25(3), 366-382. USA

49. Witenoff, S., & Lazarowitz, R. (1993). Restructuring Laboratory Worksheets for Junior High School Biology Students in the Heterogeneous Classroom. Research in Science and Technological Education 11(2), 225-239. UK.

50. Hertz-Lazarowitz, R., Baird, H.J., & Lazarowitz, R. (1994). Affective Measures on High School Students who Learned Science in a Cooperative Mode. The Australian Science Teachers Journal, 44(2), 67-71. Australia

51 Lazarowitz, R., Hertz-Lazarowitz, R., & Baird, H.J. (1994). Learning Science in a Cooperative Setting: Academic Achievement and Affective Outcomes. Journal of Research in Science Teaching, 31(10), 1121-1131. USA

52. Yaroslavsky, O., Dori, Y.J., & Lazarowitz, R. (1995). The Effect of Teaching the Cell Topic Using the Jigsaw Method on Students' Achievement and Learning Activity, ERIC Clearinghouse for Science, Mathematics and Environmental Education. Columbus,Ohio, ED 387. 336: SE. 056 654. USA

53. Lazarowitz, R., Baird, H.J., & Bowlden, V. & Hertz-Lazarowitz, R. (1996). Teaching Biology in a Group Mastery Learning Mode: High School Students' Academic Achievement and Affective Outcomes. International Journal of Science Education, 18 (4), 447-462. UK

54 Hofstein, A., Cohen, I., & Lazarowitz, R. (1996). The Learning Environment of High School Students in Chemistry and Biology Laboratories. Research in Science and Technological Education, 14 (1), 103-116. UK

55. Lazarowitz, R., Hertz-Lazarowitz, R., & Baird, H.J. (1996). Learning and Teaching Science in the Classroom: New Settings and Statistical Comments. Journal of Research in Science Teaching, 33(6), 681-683. USA

56. Penso, S. & Lazarowitz, R. (1997). Students-Teachers' Pedagogical Content Knowledge: How They Design Content Representation for Instruction? Studies In Education. Haifa University Press. 2 (1) 99-119, (in Hebrew, with English summary, pp. V-VI). Israel

57. Huppert, J., Yaacobi, J., & Lazarowitz, R. (1998). Learning Microbiology with Computer Simulations: Students' Academic Achievement by Method and Gender. Research in Science and Technological Education 16 (2), 231-245. UK

58. Penso, S. & Lazarowitz, R. (1998). How Do Student-Teachers Formulate a Lesson's Central Theme and Identify its Sequence of Teaching. Megamot, Behavioral Sciences Quarterly, 39 (3), 286-302. (in Hebrew, with English summary, p. VIII). Israel

59. Revital T. Tal, Yehudit J. Dori and R. Lazarowitz, (2000). A Project-Based Alternative Assessment System. Studies in Educational Evaluation, 26 (2), 171-191. UK

60. Lazarowitz, R., (2000). Research in Science, Content Knowledge Structure, and Secondary School Curricula. Israel Journal of Plant Sciences. 48 (3), 229-238. Israel

61. Huppert, J., Lomask, S. M., & Lazarowitz, R. (2002). Computer Simulations in High School: Students' Cognitive Stages, Science Process Skills and Academic Achievement in Microbiology. International Journal of Science Education. 24 (8), 803-821. UK

62. Lazarowitz, R. & Ilit Bloch. (2006) Awareness of Societal Issues Among High School Biology Teachers Teaching Genetics. Journal of Science Education and Technology. USA. 14(5/6), 437-457.

63.Lazarowitz, R. & Lieb, C., (2006) Formative Assessment Pre-Test to Identify College Students' Prior Knowledge, Misconceptions and Learning Difficulties in Biology. International Journal of Science and Mathematical Education. Taiwan- USA. 4(4), 741-762.

64. Danay Rakefet & Lazarowitz, R (2006). An Inquiry on Higher-Order Thinking Skills of Students who Study the Unit "Treasures of the Sea" within "Science and Technology for All. Joint North American-European and South American Symposium (NAESA). Science and Technology Literacy in the 21st Century, University of Cyprus, Cyprus, May 31-June 4. Vol. II, 192-199.

65. Lazarowitz, R. (2007). Science Education, BSCS, NARST and JARST: from the University to the high schools, a foreigner-veteran memoire. p.36-38. In K. Tobin and W.M. Roth, (Eds) NARST: a Lived History. "Cultural Studies of Science Education." pp.1-54.Springer.NY

66. Khalil, M., Lazarowitz, R. & Hertz- Lazarowitz, Rachel, (2009). A Conceptual Model (The Six Mirrors of the Classroom) and it's Application to Teaching and Learning about Microorganisms. "Journal of Science Education and Technology." 18 (1), 85-100. (0nline 10.1007/s10956-008-9135-1. November 11, 2008.

67. Anton, Caesar & R. Lazarowitz, (2010). Cognitive Operational Stages and Cognitive Preferences of High School Students on Biology. Studies in Education. University of Haifa, 2-1, 195-214. (in Hebrew with English Abstract, p XI-XII)

68. R. Lazarowitz & Rachel Hertz-Lazarowitz. (2010) "The Structure Reform of the High School Science Curricula: From the 20th to the 21st Century." PHOENIX-PHE 2010. University of Brasov, Romania, 1. 91-100.

69. Khalil, M. & Lazarowitz, R. (2012). A reflective class: Are the meta-cognitive skills of teachers and students enhanced by writing reflections in portfolio? *Al- Nibras*, Journal of Education, Science and Society, 6, 3-22. (In English).Israel

70. Anton, Caesar & R. Lazarowitz,(2012) "The Learning environment, attitudes and choosing Biology at 5 points level by high school students, studying with exemplary, regular and medium teachers, in Arab Schools in Israel" *Al-Nibras*, Journal of Education, Science and Society, 7, 155-178. (In English). Israel

71. Lazarowitz, R, & Naim, R. (2013). " Learning the Cell structures with three-dimensional models: Students' achievement by methods, type of school and questions' cognitive level"

Journal of Science Education and Technology. 22 (4), 500-508.
On line first DOI 10.1007/s10956-012-9409-5 USA.

72. Khalil, M., & Lazarowitz, R. (2014). "Learning Microorganisms and students' attitudes toward environment and peace " Creative Education Journal.5 (10), 822-834. USA.

73. Khalil, M., Lazarowitz, R &. Rachel, Hertz- Lazarowitz (2014). " Biology High School Science Curricula for the 21st century." Creative Education Journal.5 (16), 1464-1478. USA.

CHAPTERS IN BOOKS

1. Lazarowitz, R., Hertz-Lazarowitz, R., & Baird, H.J. (1983). Cooperative Investigative Learning (CIL) Approach for Science Classroom: Workshop Manual. In P. Tamir et al. (Eds.). Preservice and Inservice Education of Science Teachers. International Science Services, Philadelphia, pp. 235-245.

2. Huppert, J., & Lazarowitz, R. (1983). A Workshop for Biology Teachers in the Individualized Audio-Tutorial Approach. In P. Tamir et al. (Eds.), Preservice and Inservice Education of Science Teachers, International Science Services, Philadelphia, pp. 351-358.

3. Huppert, J., & Lazarowitz, R. (1984). Individual Audio-Tutorial Instruction in Biology - Applicative and Evaluative Study in Junior High School (in Hebrew with Abstract inEnglish). In A.M. Mayer & P. Tamir (Eds.) Science Teaching in Israel, Origins, Development and Achievements. The Amos de Shalit Science Teaching Center. The Hebrew University of Jerusalem, Jerusalem, Israel, pp. 113-130.

4. Lazarowitz, R., Baird, H.J., Hertz-Lazarowitz, R., & Jenkins, J. (1985). The Effects of Modified Jigsaw on Achievement, Classroom Social Climate and Self-Esteem in High School Science Classes. In R. Slavin, et al. (Eds.), Learning to Cooperate, Cooperate to Learn, Plenum Press Publishing Corp., New York, USA, 9, pp. 231-253.

5. Huppert, J., & Lazarowitz, R. (1986). A Simulation Program in Biology - The Growth Curve of Microorganisms. In L.F. Lewis & B. Einstein (Eds.). Courseware Design and Evaluation. Laser Press, Rehovot, pp. 248-254.

6. Lazarowitz, R., Huppert, J. (1988). Computer Assisted Learning in Biology: Sudents' Achievement by Gender and Cognitive Operational Levels. In F. Lovis & E.D. Tagg (Eds.). Computers in Education, Switzerland, pp. 589-597.

7. Lazarowitz, R., & Karsenty, G. (1990). Cooperative Learning and Students' Academic Achievement, Process Skills, Learning Environment and Self-Esteem in 10th Grade Biology Classrooms. In S. Sharan (Ed.), Cooperative Learning: Theory and Research. Praeger Publishing Co., NY, USA. 6, pp. 123-149.

8. Lazarowitz, R. & Tamir, P. (1994). Research on Using Laboratory Instruction in Science. In D. Gabel (Ed.) Handbook of Research in Science Teaching and Learning. The MacMillan Publishing Comp. N.Y., USA, 3, pp. 94-128.

9. Lazarowitz, R. (1995). Learning Science in Cooperative Modes in Junior- and Senior-High Schools: Cognitive and Affective Outcomes. In J.E. Pedersen and A.D. Digby (Eds.). Secondary Schools and Cooperative Learning: Theories, Models and Strategies. Garland Press, USA, 5, pp. 185-227.

10. Lazarowitz, R. (1995). Learning Biology in Cooperative Investigative Groups. In J.E. Pedersen and A.D. Digby (Eds.). Secondary Schools and Cooperative Learning: Theories, Models and Strategies. Garland Press, USA, 11, pp. 341-363.

11.Lazarowitz, R. & Hertz-Lazarowitz, R. (1998). Cooperative Learning in the Science Curriculum. In B.J. Fraser & K.G. Tobin (Eds), International Handbook of Science Education, Dordrecht: Kluwer Academic Publishers, 4.2, pp. 449-469.

12.Lazarowitz, R., (1999). The Education of Technology and Science High School Teachers Where? In Drora Kfir (Ed.) Training Teachers for an Academic Profession. The Van Lee Jerusalem Institute, pp. 109-120. (in Hebrew)

13. Lazarowitz, R & Hertz-Lazarowitz, R (2006). Cooperative Learning and Inquiry Skills in Teaching Biology. In A. Zohar (Ed), Learning by Inquiry: An Ongoing Challenge. I. L. Magnes Publishing Co. Hebrew University. Jerusalem, Israel. Chapter 5, pp. 133-165. (in Hebrew)

14. Lazarowitz, R.(**2006**). **Vol. I** High School Biology Curricula Development: Implementation Teaching and Evaluation, from the 20th to 21st Century. In S. K .Abell & N. Lederman. (Eds), Handbook of Research in Science Education. Mahwah, N.J. Lawrence Erlbaum Associates, Inc. Publishers. USA. Chapter 20, pp. 561-598.

15. **Vol. ll**. (**2014**), Chapter 21, pp. 412-433. (up-date' literature, from 2006 to 2014) Routledge, Taylor & Francis Group. New-York and London.

16. Ingo Elkis, Gjalt, T. Prins & Reuven Lazarowitz ,(**2013**). How to Organize the Chemistry Classroom in a Student-Active Mode" In I. Eilks and A. Hofstein, (Eds) Teaching Chemistry - A Study Book. Sense Publishers. Europe, Chapter7, pp. 183-212.

17. Lazarowitz, R. Laboratory Reports (**2015**) Encyclopedia of Science Education, Prof. Richard Gunstone,(Editor) Monash University, Melbourne Australia, and Prof . John Wallace, Ontario Institute of Education, Canada, Editor for the Teaching Section. 561-563, **2015.**

PAPERS IN PROFESSIONAL JOURNALS (Hebrew and English)

1. Lazarowitz, R. (1967). Movements in Higher Plants - Structure and Function. Biology in the Secondary School, 3, 28-34.

2. Lazarowitz, R. (1969). Notes about Practical Matriculation Examinations in Biology. Maalot, Journal of High School Teachers Association in Israel, 4, 26-30.

3. Lazarowitz, R. (1970). In-service Training of Biology Teachers in High Schools. Maalot, Journal of High School Teachers Association in Israel, 1, 38-43.

4. Lazarowitz, R. (1971). Problems in Teaching Biology in Secondary Schools. Metodika, Tel-Aviv University Press, 3, 140-149.

5. Hertz-Lazarowitz, R., & Lazarowitz, R. (1974). Who is Studying Hebrew at the University of Texas at Austin? Sheviley Hahinuch, New York, U.S.A., 4(34), 214-218.

6. Weinberg, H., & Lazarowitz, R. (1976). The Overhead Projector in the Service of the Natural Science Teachers. The Journal of Biology Teachers in Israel, 52/53, 21-23.

7. Lazarowitz, R., & Hertz-Lazarowitz, R., (1977). Teaching Subjects in Ecology in the High School. The Journal of Biology Teachers in Israel, 59, 1-11.

8. Huppert, J., & Lazarowitz, R. (1977). The Development of a Learning Unit "The Cell" in an Audio-Visual Approach for 9th Grade Students. The Journal of Biology Teachers in Israel, 60, 6-11.

9. Orlan, Z., & Lazarowitz, R. (1980). Selected Projects on Environmental Learning. Topics for High School. The Journal of Biology Teachers in Israel, 76, 26-45.

10. Penso, S., & Lazarowitz, R. (1985). Identification of Learning Difficulties of High School Students who Study Biology at Two Points Level. The Journal of Biology Teachers in Israel, 101, 10-21.

11. Huppert, J., & Lazarowitz, R. (1985). The Growth Curve of Microorganisms. A Computer Assisting Learning Unit. The Journal of Biology Teachers in Israel, 102, 24-29.

12. Huppert, J., & Lazarowitz, R. (1987). The Development of a Learning Unit in Biology Using the Microcomputer. High School Education, Ministry of Education and Culture, 2, 46-51.

13. Lazarowitz, R., & Huppert, J. (1987). The Organization and Management of the Classroom which Studies in an Individualized Audio-Visual Method. High School Education, Ministry of Education and Culture, 2, 52-70.

14. Nachshon, M., & Lazarowitz, R. (1993). Nuclear Radiation, Biological Impact and Uses. The Journal of Biology Teachers in Israel, 1992, 131, 43-68, and in Educational Initiatives in High Schools, J. Segev-Shaashua, & A. Cohen (Eds.). Dept. of Promoting Educational Initiatives and Tasks. Ministry of Education and Culture, Jerusalem, Israel, B, 147-171.

15. Vinnik, H., Lazarowitz, R., & Moore, M. (1993). The Perception of 8th Grade Pupils of the Concept "Water in the Living Organisms". Bulletin for Natural Science Teachers, Ministry of Education and Culture, Jerusalem, Israel, 18, 8-17.

16. Huppert, J., & Lazarowitz, R. (1995). The Synapse, A Learning Unit in Biology. The Journal of Biology Teachers in Israel, 143 (3), 57-61.

17. Welicker, M. & Lazarowitz, R. (1996). How Emotional Stress May Affect the Hearth and Cardiovascular Vessels' Function and their Health. The Journal of Biology Teachers in Israel, 149 (1), 86-88.

18. Mahmood Khalil, & .Lazarowitz,R. (2001) Teaching Microorganisms in a STS Method in 9th and 10th Grades. The Journal of Biology Teachers in Israel. 166, 49-62.

19. Hertz-Lazarowitz, R. Lazarowitz, R. & Nachson, Michal. (2010) The Pedagogy of the Cooperative Learning. Game and Words, MUTAV, Ministry of Education. Jerusalem, Israel, 17-34.

PROCEEDINGS

1.Lazarowitz, R., & Hertz-Lazarowitz, R. (1977) Instruction of Ecological Subjects in Secondary Schools. In J. Kott (Ed.) Proceedings of the Eighth Scientific Conference of the Israeli Ecological Society, Tel-Aviv, 1-9.

2.Lazarowitz, R. & Y. Carmi (1990) Career Anchor Orientations of Secondary Science Teachers and Student-Teachers in Biology. Proceedings of the International Conference on Teacher Thinking. Ben-Gurion University, Beer-Sheva. Israel. 302-308.

3. R. Lazarowitz (1995) *
Introduction to Strand C: A Focus on the Classroom, 275-277.

4. R. Lazarowitz and J. Huppert (1995) *
Teaching and Learning Science in New Settings, 289-296.

5. A. Hofstein, I. Cohen and R. Lazarowitz (1995) *
The Use of Science Laboratory Environment Inventory (SLEI) to Compare the Psychosocial Environment of the Chemistry and Biology Laboratory Classes in Israel, 347-349.

* (3, 4, 5) In A. Hofstein, Bat-Sheva Eylon and G. Giddings (Eds.), 1995, Science Education in Developing Countries: From Theory to Practice, The Weizman Institute of Science, Rehovot, Israel. International Conference, Jerusalem, 1993.

6. Tal, R., Dori, Y.J., and Lazarowitz, R. (1996). Industry-Environment Projects: An Evaluation Approach in Environmental Education - The Second International Conference. Teacher Education: Stability, Evolution and Revolution. (Hebrew Edition, pp. 175-187; English Edition, pp. 599-610).

TEXTBOOKS for SECONDARY SCHOOLS

1. Member of Israel team teachers who adapted and implemented the BSCS Yellow Version, " An Inquiry Into Life" for High Schools in Israel. The Amos de- Shalit Science Teaching Center, and the Hebrew University at Jerusalem, Israel. (1965-1968).
Textbooks for 9th, 10th, 11th, and 12th, grades.
a.& b – Unity, The Cell Theory. 288 pp.
c. _ Diversity, Microorganisms. 130 pp.
d. _ Diversity, Plants. 191 pp.
e. _ Diversity, Animals. 237 pp
f _ Diversity, Physiology. 267 pp.
g. _ Continuity, Genetics. 357 pp.
h. _ Continuity, Evolution. 402 pp.

2. Huppert,* J. and Lazarowitz, R. (1976-1985)
___Five Audio- Tutorial Learning Booklets in Biology for 9th grade Students.
Department of Education in Technology and Science, IIT, Technion, Haifa, Israel.

1976, First Edition. 1980, Second Edition. 1987, Third Edition (revised and enlarged).

a. The Cell, the Basic Unit of the Organism. 20 pp. Introduction to Cells. 3 pp.
b. The Cell Membranes. 28 pp. Cell membranes. 7 pp.
c. The Cell Nucleus. 19 pp. Cell nucleus. 5 pp.
d. The Cell Organelles. 21 pp. Cell Organelles. 5 pp.

e. How to Use the Loop-film (the Nucleus).16 pp.

3. Naim,* R. and Lazarowitz, R. (1987).
Audio- Tutorial Learning Units in Biology for10th Grade Students.
Department of Education in Technology and Science, IIT, Technion, Haifa, Israel

a. The Reproduction of the Man. The female and male organs. 22 pp.
Instructional booklet. 6 pp.
b. The Physiology of the Human Reproduction. 20 pp.
Instructional booklet. 3 pp.
c. Appendix. Pictures. 10 pp.

4. Karsenty,* G. and Lazarowitz, R. (1982).
"Photosynthesis." A Learning Unit for Peer-Tutoring in Small Investigative Groups for 10th grade Biology Students. 37 pp.
Department of Education in Technology and Science, IIT, Technion, Haifa, Israel

5. Huppert*, J. and Lazarowitz , R. (1985).
a. "The Growth Curve of the Microorganisms." Computer Assisted Learning Unit for 10th grade students. (English, 15 pp. Hebrew, 16 pp). b. "Growth Curve Simulation" User's Manual. (Hebrew, 13 pp. and English, 11 pp.).
b. Diskette for Apple II e. TALGAR. Granot Educational Computer System.

6. Hertz-Lazarowitz*, R. and Lazarowitz, R. (1984-1985).

"A Workshop Manual for Secondary Science Teachers Training in Cooperative Methods."
Department of Education in Technology and Science. IIT, Technion, Haifa, Israel
Hebrew Edition, 1984; English Edition, 1985.

7. Lazarowitz,* R. and Galon, Miri.

Two Learning Units for 9th Grade Students Using the Peer-Tutoring in Small Investigative Groups Approach.
a. "Mitosis" 14 pp.
b "Meiosis" 10 pp
Department of Education in Technology and Science. IIT, Technion, Haifa, Israel.

8. Huppert,* J. and Lazarowitz, R. (1987).

"Synapsis - The Neuron Structure and Connection."
a. Computer Assisted Learning Unit for 10th Grade Students. 20 pp.
b. Worksheet Manual for Students. 10 pp.
c. Diskette for Apple II e.

9. Yaroslavsky, Y. Dori, and R. Lazarowitz. (1994) Teaching the "Cell" Topic, using the Jigsaw Method. Department of Education in Technology and Science, Technion IIT, Haifa, Israel.(in Hebrew, 70 pp).

10. Wagner, I., Naim, R. and Lazarowitz, R. (1996). Communication, Regulation and Coordination in Plants, Department of Education in Technology and Science. IIT, Technion, Haifa and The Israel Science Teacher Center, Jerusalem Israel, (in Hebrew - 105 pp.).

11. Welicker M., and Lazarowitz, R. (1998).
a) The Heart and Cardiovascular system (With Health Aspects) (in Hebrew - 221 pp);
b) Cardiovascular Risk Factors. Department of Education in Technology and Science. IIT, Technion, Haifa and The Israel Science Teacher Center, Jerusalem Israel, (in Hebrew - 89 pp.). Second Edition. (2002) (revised and enlarged, 282 pp.)

12. Wagner, I., Netzer, A., and Lazarowitz, R. (1999) Communication, Regulation and Coordination in Plants (Laboratory Experiments with Computer Assisted Learning; (Electronic Spreadsheets) Department of Education in Technology and Science. IIT, Technion, Haifa and The Israel Science Teacher Center, Jerusalem Israel, (in Hebrew - 62 pp.).

13. Nachshon, Michal and Lazarowitz, R. (2000). Ionizing Radiation – Uses and Biological Effects. Department of Education in Technology and Science. IIT, Technion, Haifa and The Israel Science Teacher Center, Jerusalem, Israel. (Hebrew edition – 153 pp.)
(Arabic edition, 2005, 153 pp)

14. Mahmood Khalil and Lazarowitz, R. An Inquiry of the Microorganisms World (2002).
Hebrew Edition: a) Students Textbook, 76 pp. b) Teachers Handbook., 76 pp
Arab Edition: a)Students Textbook, 76 pp. b) Teachers Handbook, 76pp

TEXTBOOKS FOR COLLEGE

15. Lieb, C., Lazarowitz, R., Vincente, S., Pingitore, N., and Dean, E.A. (Fall 1994 - 95) Laboratory Manual: The Explanatory Power of Science, The University of Texas at El Paso. 54 pp.

16. Lieb, C., Lazarowitz, R., Vincente, S., Pingitore, N., and Dean, E.A. (Spring 1995) Laboratory Manual: Science in the Modern World, The University of Texas at El Paso. 45 pp.

17. Lieb, C., Lazarowitz, R., Johnson, J., and Mayberry, L. (1995) Laboratory Manual for Introductory Biology, Kendal/Hunt, Publishing Co. Dubuque, Iowa, USA (150 pp.).

DIDACTICAL EVALUATION of TEXTBOOKS and INVITED LECTURES.

1. Vertebrates. High School Textbooks in Biology, by Dr. A. Goldberg, 1963.

2. Biology Textbooks, A, B, C, for High School, by Dr. A. Goldberg, 1968.

3. Member of the BSCS Summer Conference at the University of Texas at Austin for the

Development of "New Material and Techniques in the Preparation of High School Biology Teachers." BSCS Special Publication, No. 6, University of Colorado, Boulder, USA, 1968.

4. "Science Education in Israel." Science Education Center, University of Texas at Austin, USA, 1973.

5. The Implementation of the Learning Unit "The Cell" in an Audio Tutorial Approach. at the Science Education Center, University of Texas at Austin, USA, 1978.

6. "Teaching by Inquiry Skills at the Junior High School." Brigham Young University, Provo, Utah, USA, October 4, 1978.

7. "Intercultural Forum. Symposium. Developing Sensitivity to Human Needs Among Pre-service Teachers." Brigham Young University, Provo, Utah, USA, January 22, 1981.

8. "Training Process Approach – Hook Kids on Science." Provo School District Office, Provo, Utah, USA, May 13, 1981.

9. "Jigsaw Method in Biology: A Unique Approach for Biology and Life Science Teaching." Department of Science Education, University of Georgia at Athens, USA, May 19, 1981.

10." Cooperative Learning Project in Biology Instruction." College of Education, University of Washington, Seattle, Washington, USA, June 11, 1981.

11. " Peer – Tutoring in Cooperative Small Investigative Groups in Science." Department of Science Education, Weizman Institute of Science. Rehovot, Israel, May 10, 1983.

12. "Photosynthesis: The Development of a Learning Task in Biology for Small Investigative Group Instruction." Teachers Seminar Levinsky, Tel Aviv, Israel, November 22, 1984.

13. "Cooperative Learning in Science Classroom." Science and Mathematics Centre (SMEC). Curtin University of Technology, Perth, W. Australia. May 19, 1988.

14. "The Implementation of an Inquiry Oriented Curriculum in Biology in Secondary Schools. Murdoch University, Perth, W. Australia. May 23, 1988.

15. The Implementation of the Jigsaw Method in Secondary Science Classrooms. A workshop for science teachers. Science & Mathematics Education Centre (SMEC). Curtin University of Technology. Perth, Western Australia, April & May, 1988.

16. The Development and Implementation of Learning Material in Biology in the Cooperative Method for High Schools. Israeli Science Teaching Center. Hebrew University of Jerusalem, Israel, Nov. 10, 1990.

17. How to Develop and Implement a Learning Unit "Mitosis" in the Jigsaw Approach for Junior High School Students. Secondary Education Department, Brigham Young University. Provo, Utah, USA, September 9, 1991.

18. "Jigsawing the Jigsaw" Workshop. Secondary Education Department. Brigham Young University, Provo, Utah, USA, September 11, 1991.

19. Related Factors in Biology Curriculum Development for Non-Majors. Seminar - Dept. of Biological Sciences, Univ. of Texas at El-Paso, USA, February 13, 1992.

20. Cooperative learning. Teachers College Columbia University. New York, N.Y., May 11, 1992.

21. Teaching Science in a Thematic Approach. Dept. of Biological Sciences. Univ. of Texas at El Paso, USA, June 23, 1992.

22. Science Content, Laboratory Experiments and Course Evaluation. A Thematic Approach at University Level Workshops. University of Texas at El Paso (UTEP), USA, February, 1993.

23. The High School Science Curriculum toward the New Millennium. Brigham Young University (BYU) Provo, Utah, USA. August 1997.

24. Science Education and High School Curriculum for the 21st Century. The University of Texas at Austin, TX. USA, September, 1997.

25. Science Education and High School Curriculum for the 21st Century. The University of Georgia at Athens. GA. USA. September, 1997.

M.Sc. Graduate Students	**Thesis**
1. Hava, Weinberg, 1977	A Correlation Study Between the Biological Classification Ability and the Verbal Capacity of Junior High School Students in Israel.
2. J. Huppert, 1978	The Development and Use of a Learning Unit "The Cell" in an Audio-Tutorial Approach for 9th Grade Biology Students.
3. Z. Orlan, 1980	Selected Topics in Environmental Quality as Teaching Subjects High School (with J. Kott,* Environment Engineering Department).
4. H. Houri, 1981	A Study of Secondary Science Teachers' Attitudes Toward Teaching Science by Inquiry in Arab Schools in Israel.
5. Orna, Meir, 1982	Use of Pictures Representing Six Levels of Biological Organization in Imposed Strategy for Questions Fluency, Cognitive Levels and Biological Content Interests of High School Students.
6. S. Namir, 1982	Analysis of Technion Admittance Examination in Biology According to Biological Levels of Organization and Cognitive Levels, and their Relationship to the Matriculation Grades.
7. V. Bowlden 1982 .	The Jigsaw Method Compared to a Traditional Method for Teaching High School Biology. (Dep. of Secondary Education, Brigham Young University, Provo, Utah, USA.)
8. Sofia. Penso. 1983	Biological Levels of Organization and Cognitive Levels as Diagnosis Factors of Difficulties on Matriculation Tests of 12th Grade High School Disadvantaged Biology Students.
9. Jaffa Carmi, 1986	Role Perceptions of Secondary School Science Teachers and their Motives for Career Advancement.
10. Shulamith Witenoff, 1986	Adapting Laboratory Experiments in Biology to Concrete Operational Students.
11. Judith Yaakobi, 1987	The Integration of the Computer Assisted Instruction of "Growth Curve of Microorganisms": Academic Achievement and Inquiry Skills.
12. Miri Galon, 1988	Cognitive Levels and Academic Achievement of 9th Grade Students in Small Groups Biology Instruction.
13. Hani Kridin, 1988	An Investigation of the Learning Environment in 11th Grade Biology, and Chemistry Classes of Arab Schools (A.Hofstein, Weiztman Institute of Science. Rehovot).

14. Miriam Wellicker, 1988 Formal Reasoning and Biology Learning Outcomes of 9th Grade Students

15. Michal Nachshon, 1991 Academic Achievement and Attitudes of 10th Grade Students Towards Nuclear Radiation, Biological Effects and Uses (with M. Shemesh).

16. Hanna Bar-Yoseph, 1992 The Development of the Concept of Life Held by Elementary and High School Students.

17. Caesar Anton, 1992 The Identification of Teaching Practices in Biology Classrooms in Arab Israeli High Schools (with Prof. Avi Hofstein, Weitzman Institute of Science).

18. Avishay Smadar, 1992 The Teacher as a Factor in Students' Choice of Chemistry as a Second Course and for Matriculation Examinations (with Prof. Avi Hofstein, Weitzman Institute of Science).

19. Orly Hofman-Yaroslavsky, 1994 Teaching the Cell Topic in Small Groups, Using the Jigsaw Method: Effects on Students' Learning Achievement, Laboratory Skills and Learning Activity. (with Dr. Y.J Dori*).

20. Dalia Sarid, 1995 Teaching Sequence, Concept Mapping and Students' Achievements in Genetics in 9th Grade (with Dr. Y.J. Dori*)

21. Zivit Albert, 1996 Teaching by Intervention Mode the "Water" Topic in 7th Grade and Learning Achievements.

22. Iris Wagner-Gershgoren, 1997 Choices and Preferences of Biology Topics by High School Students

23. Mahmood Khalil, 1997. Teaching “Microorganisms” in a STS Mode in 9th Grade.

24. Yael Meir, 1999. “Nutrition.” The Development of a Learning Unit in a STS Mode. Literature Survey and Research Directions.

25. Ilit Bloch, 1999. Awareness of Social Dilemmas while Teaching Genetics, Amongst High School Biology Teachers.

26. Jehudith Drori, 1999 Cooperative Learning Tasks in “Nutrition”: Achievement and Attitudes toward Science of 9th Grade Students.

27. Eliana Shany-

Thimor 2000 Learning Tasks in Biology, Internet and Library: Achievements and Creativity of Junior High School Students.

28. Manal Bachus- Soleman. 2005. The Investigation of the Learning Environment and Instructional Methods of Biology in 9th Grade Arab and Jewish Middle-Schools in Israel.

M.Sc. Graduate Students (without Thesis)

29. Rosenthal Michal . 1998.

30. Noga Huppert-Rosoff 1998.

31. Anat Netzer 1998.

32. Gili Lovitzki 1998.

33. Israel Azulay . 1998.

34. Anat Yaniv 1998.

35. Aliza Weingarten 1998.

D.Sc. and Ph.D. Graduate Students **Dissertation**.

1. G. Karsenty,	D.Sc. 1985	Academic Achievement, Inquiry Skills, Self-Esteem, and Learning Environment of High School Biology Students Instructed in Investigative Small Groups Instruction.
2. R. Naim.	D.Sc. 1986	Achievement, Inquiry Skills, and Spatial Ability of Ninth Grade Students Instructed with Three Dimensional Models in Biology.
3. Michal Shemesh,	D.Sc. 1986	The Development, Validation and Field Study of a New Test for Assessing Formal Reasoning Patterns.
4. Hanna Vinnik,	D.Sc. 1991)	Junior High School Students' Perceptions of the Topic Water - Balance in Living Organisms.
5. Salit Ron,	D.Sc. 1995.	Learning "Evolution" in Small Investigative Groups, in 11th-12th Grades: Academic Achievement and Classroom Learning Environment.
6.Sofia Penso	D.Sc. 1995.	Subject Matter and Pedagogical Knowledge in Teacher Education.

7. Miriam Welicker, D.Sc. 1996.	Performance Tasks as an Assessment Method on the Cardiovascular System with Health Aspects.
8. Tal Revital, D.Sc. 1998.	Industry-Environment Projects in a Community School: Development of a Model and its Evaluation. (with Dr. Y.J. Dori,*)
9. Michal Nachshon, Ph.D. 1999	Integrative Instruction of Natural Sciences in High Schools: Academic Achievement, Attitudes and Learning Environment
10. Avigail Barzely, Ph.D. 2000)	Teaching Information Skills with Computers in Biology
11. Mahmood Khalil, Ph.D. 2002	An Alternative Evaluation of a Science Technology Society (STS) Learning Unit on Microorganisms for 9th Grade Students in Arab Schools
12. Iris Wagner-Gershgoren, Ph.D. 2004)	The Development and Validation of an Instrument which Sets Criteria for the Choice and Evaluation of Biology Textbooks
13. Rakefet Danay Ph. D 2007	An Inquiry of Higher-Order-Thinking Skills of Students who Study the Unit "Treasures of the Sea" within "Science and Technology for All" Project.
14. Anton Caesar Ph. D. 2008	Cognitive Preference Styles of 11th Grade Biology Students and their Concrete, Transitional and Formal Operational Stages.