

The late Dr. Shoshana Keiny
Ben-Gurion University of the Negev

CURRICULUM VITAE & LIST OF PUBLICATIONS

June 2009

1. Personal Details

Name: Dr. Shoshana Keiny

Date & Place of Birth: Haifa, Israel - 25.11.26

Military Service: 1944-1948

2. Education

B.Sc. 1949-1952 Hebrew University of Jerusalem, (HUI), Biology.

M.Sc. 1964-1967 HUI. Plant Physiology.

Advisor: Prof. Joash Vaadia

Title of thesis: "Ivanov Effect" and its relations to root resistance.

Ph.D. 1976-1981 HUI. Science Education

Advisors: Prof. Yona Rosenfeld, Prof. Ehud Jungwirth, Dr. Ada Avraham

Title of thesis: Changing biology teachers' professional-self, attitudes and behavior, by means of an experimental course, based on T-group methods.

Teaching Diploma for Biology - 1952 HUI

Advanced Studies in Education, 1973-4, Bristol University, School of Education, England.

3. Employment History

1952-1955 Biology teacher at "Hareali" High School Haifa.

1957-1959 Biology teacher at Ashkelon High School.

1961- 1964 Biology teacher at Comprehensive School A, Beer-Sheva

1965-1975 Biology teacher, head of Biology Dpt. and deputy head at Comprehensive School C, Beer-Sheva.

1969-1974 Tutor of Biology-student-teachers in BGU, Education Dpt.

1975-1979 Lecturer in BGU, Education Dpt.

1980-1982 Curriculum development at The Unit for Environmental Education. (UEE) Sdeh Boker Campus.

1982-1984 Head of UEE, Sdeh Boker Campus.

1980-1988 Lecturer in BGU In-service Teacher Education Dpt.

1984-1988 Lecturer in BGU, Dpt. of Education.

1989 Senior Lecturer, Dpt. of Education.

1991 Tenureship.

1992-1995 Head of the division for 'Curriculum, Teaching and Learning' in the Education Dpt.

- 1992 Sabbatical leave in Cambridge Institute of Education. Cambridge. U.K.
 1993-1995 Head of Graduate Studies, MA and PhD students.

4. Professional Activities

(a) Position in Academic Administration

- 1965-1967 Member of the Development-Team of the Israeli BSCS Curriculum Project.
 1964-1965 Research on The Dynamics of Water transport in roots (with Prof. Y. Vaadia) at the Institute for Negev Research.
 1980-1984 Research on Self-Renewal Strategies in the Secondary School at the Hubert Humphery Center for Social Ecology, BGU.
 1982-1985 Research on Environmental Education (E.E.) Curriculum Development and Formative Evaluation, at the UEE, Sdeh-Boker Campus.
 1986-1988 Evaluation of 'LAHAV (Self-Renewal in the Secondary School) Project
 1985- 1989 Developing evaluative instruments to measure students' conceptual development in E.E.
 1989- 1991 School Based Curriculum Development (SBCD) Within The "Comprehensive Community School' Project.
 1989- ,1991 Advancing Science & Maths Education in The Comprehensive Schools of Beer Sheva.
 1992-1993 School Based Curriculum Development and Self Evaluation in the Experimental Community School, Beer-Sheva.
 1993 -1996 Science Technology & Society (STS) project, that promotes teachers to construct their own STS rationale and curriculum units.
 1994-1995 Evaluation of the' Health Curriculum Project'. A collaboration of BGU Medical school and "Eshel Hanasi" high school
 1994- Initiating a 'Science Technology Environment & Society' (STES) project. A joint project of BGU, with the Technion and Haifa University.
 1998-9 Head of a navigating team for education reform in Zafit regional high-school.

(b) Professional functions outside university

- 1985-1987 Initiating the Israeli Environmental Education Project (IEEP), The Ministry of Education through The Open University.
 1992- Co-editor (Member of the Editorial board) of the 'International Journal of Educational Action Research' (IJEAR)
 1992- Consulting editor of the journal 'Cybernetics & Human Knowing.
 1993-1999 Executive member of the International organization ISATT (International Study Association on Teacher Thinking)
 1994- External examiner to the 'Applied MA studies association'. A joint program of the David Yellin Teachers College, and the University of East Anglia. UK.

- 1995- Advisor to the new 'National Biology Teachers' Center' in the Hebrew University Jerusalem.
- 1995- Co- editor of the journal Teachers and Teaching, The journal of the International study Association on Teachers Thinking (ISATT).

(c) Courses taught

1. Developing Curriculum Units in Environmental Education-A Seminar for undergraduate (B.A.) students.
2. Comprehensive Schools (Equal Opportunities in Education'?) - A compulsory experimental course for B.A. students.
3. Enhancing a personal educational conception - for BA students.
4. Teachers' Thinking - A Seminar for MA students.
5. Implementation and Evaluation of School Projects based on Action Research for MA students.
6. Thesis Seminar - A compulsory course for MA students.
7. Project Seminar - Action Research Orientation
8. Teachers as researchers: A new conception of the profession

(d) Memberships in Professional Scientific Societies

International Science Teaching Association, since 1978.
 American Educational Research Association (AREA), since 1978.
 Cambridge Action Research Network (CARN), since 1984.
 International Study Association for Teacher Thinking (ISATT), since 1988.
 American Society for Cybernetics (ASC), since 1988
 International History Philosophy and Science Teaching, (HPSST) since 1989
 European Association for Research Learning & Instruction (EARLI), since 1993

5. Scientific Publications

(a) Books

1. Keiny, S.; Shachak, M.; Yahav L. & Orion, E. (1982). *Sdeh Boker Version of Environmental Education*. Sdeh Boker Campus: The Institute for E.E. Internal Publication. (81 pages).
2. Zoller, U. and Keiny, S. (Eds.) (1986), *Environmental Education in Israel: Towards the 2000*. Sdeh boker Campus and the Nature Preservation Association (in Hebrew) (234 pages).
3. Keiny, S. and Zoller, U.(Eds.) (1990). *Conceptual Issues in Environmental Education*. N.Y.: Peter Lang Pub. (301 pages).
4. Keiny, S. (2002). *Ecological Thinking A new approach to educational change*, University Press of America (UPA) Inc. Lanham New-York Oxford

5. קיני, ש. (2006). חשיבה אקולוגי: גישה חדשה לשינוי חינוכי. הוצאת "כליל" מכון מופת.

(b) Chapters in collected Volumes-Conferences proceeding

1. Keiny, S. (1979). Training Biology teachers for successful implementation of inquiry oriented curriculum, In: Tamir, P. Blum, A. Hofstein, A. Sabar, N. (Eds.) *Curriculum Implementation and its Relationship to Curriculum Development in Science*. Jerusalem: Hebrew University Press. pp. 195-196.
2. Keiny, S. Kushnir, T. & Dreyfus, A. (1983). A model for enhancing the teacher's divergent thinking. In Tamir, P. Hofstein, A. Ben-Peretz, M. Feinstein, B. Feingold, M. Keiny, S. & Sabar, N. (Eds.) *Preservice and In-service Education of Science Teachers*. Rehovot: Belaban International Science Services. pp. 287-293.
3. Shachak, M. Keiny, S. & Orion, E. (1983). Training teachers to teach in the environment. In Tamir et. al. (Op. Cit) pp. 445-456.
4. Keiny, S. (1985). Development of an instructional theory for Environmental Education and its implementation in the curriculum and teacher education. In: Tamir, P. & Meir, A. M. (Eds.) *Science Teaching in Israel: Sources Development and Achievements*. Israel Science Teaching Center. Hebrew University. pp. 197-206. (Hebrew).
5. Keiny, S. (1986). Developing curriculum units as a means for training Environmental Education Teachers. in Zoller, U. & Keiny, S. (Eds.) *Environmental Education in Israel Towards the 2000*. Nature Preservation Association Press. pp. 146-153. (Hebrew).
6. Keiny, S. (1986) Training an educator, in In-service Courses for Teachers: Proceedings of a Conference on In-service Teacher Education. Tel Aviv University Press. pp. 163-174. (Hebrew).
7. Keiny, S. (1986). A Desert Watershed as a case study for teaching System-Thinking. In: Dubinsky, Z. & Steinberger, Y. (Eds.) *Environmental Quality and Ecosystem Stability*. Proceeding of the 3rd Intentional Conference of the Israel Society for Ecology & Environmental Quality Sciences. Ramat-Gan: Bar-Ilan University Press. pp. 145-150.
8. Keiny, S. (1987). School Based inservice Education for Teachers (S B INSET). In: Malckiel, Z., Dor, S. & Frenkel, M. (Eds.) *Problems in Inservice Teacher Education*. Jerusalem: Ministry of Education & Hebrew University Press. pp. 1-12. (in Hebrew).
9. Keiny, S. (1987). Environmental Education as a means of Teacher Development. In: Dasberg, L. & Bamberger, S. (Eds.). Proceedings of the BiNational Conference on Education of Holland and Israel. pp. 50-59.
10. Keiny, S. & Weiss, T. (1987). A Case study of SBCD as a model for INSET. In: Sabar, N. Ruddock, J. & Ried, W. A. (Eds.) *Partnership and Autonomy in SBCD: Perspective from Israel and England*. Sheffield: University of Sheffield Press. pp. 56-61.
11. Gorodetzky, M. & Keiny, S. (1989) Conceptual Change and Environmental Cognition. In: Vinner, S. (Ed.), *The Proceedings of the Second Jerusalem Convention on Education*. 1989. Hebrew University Press, pp. 480-489.

12. Keiny, S. (1989) Developing Teachers' System Thinking, in: Vinner, S. (Ed.), The Proceedings of the Second Jerusalem Convention on Education. Hebrew University Press, pp. 218-230.
13. Keiny, S. (1990) School-Based INSET as a Medium for Teachers' Professional Development. In: The Proceedings of the International Conference on School-Based Innovations: Looking Forward to the 1990's. Hong-Kong University. Longman Group (Far East) Ltd. (in Press).
14. Keiny, S. (1990) Constructivism and teacher development, in Hoz, R. (ed.), Theoretical and Practical Implications of Research on Teacher Thinking, Proceedings of the International Conference on Teacher Thinking, Ben Gurion University of the Negev, pp. 278-282.
15. Faital, A. and Keiny, S. (1990) A Case study of a teacher personal professional development, in R. Hoz (Ed.), (Op.Cit), pp. 188-193.
16. Zamir, Y. and Keiny, S. (1990) School innovations as a means of teachers' personal professional development: A Case study of a teacher, in R. Hoz (Ed.), pp. 483-487.
17. Keiny, S. (1993) Enhancing teachers to teach for diversity, in the Proceedings of the International conference 'Enhancing the Quality of Teaching in colleges and universities'. The University of South Carolina, Charleston.
18. Keiny, S. & Barak, Y. (1993) Developing an Integrative-Science Curriculum as a Process of teachers' conceptual change. in Proceedings of International Conference 'Science Education in Developing Countries: From Theory to Practice' Jerusalem January.
19. Gorodetsky, M. Hoz, R. & Keiny, S. (1993) The relationships of teachers' collective conception and school renewal, in Proceedings of International Conference 'Science Education in Developing Countries: From Theory to Practice' Jerusalem January.
20. Keiny, S. (1993) Teachers' professional development as a process of conceptual change, in Proceedings of the 6th international conference of ISATT 'Teachers Thinking and Action in varied contexts. University of Goteborg, Sweden, July.
21. Keiny, S. (1993) Teachers' professional development: A dialogue between universities and schools. Proceedings of the International Conference on Teacher Education: From Practice to Theory, MOFFT Institute Tel-Aviv June.
22. Keiny, S. (1993) Promoting higher levels of learning through SBCD, Proceedings of the International Conference 'Cybernetics in the Art of Learning' The American Society for Cybernetics (ASC). The University of the Arts, Philadelphia, November 1993.
23. Keiny, S. (1993) The Desert as Conceptual Frontier, Proceedings of the International
24. Conference 'Regional Development - The Challenge of the Frontier' BGU. Ein-Bokck, December.
25. Keiny, S. & Gorodetsky, M. (1994) STS curriculum development as a means of teachers' conceptual change, 7th IOSTE Symposium Science and Technology Education in a Demanding Society. De Koningshof Veldhoven, The Netherlands 23-31 August.

26. Gorodetsky, M. & Keiny, S. (1994) Implementation of a model for teachers' conceptual change, International Symposium on Conceptual Change Friedrich-schiller University of Jena, Germany, september 1-3.
27. Keiny, s. & Gorodesky, M. (1995) Beyond collaboration: Creating a community of learners. Proceeding of the Third International History Philosophy and science Teaching conference. University of Minnisota.
28. Gorodetsky, M. & Keiny, s. (1995) Content Pedagogy and World View: An STS project, Proceeding of the Third International History Philosophy and science Teaching Conference. University of Minnisota.
29. Dori, Y. Keiny, S. & Zoller, U. (1995) STES curriculum development as a process of Conceptual Change: A symposium on: Multi-Dimensional Research-Based Approach to STES/ HOCS-Oriented. Proceeding of NARST Meeting: Teaching and Curriculum Development, April 1995
30. Dori, Y. Keiny, S. Gross, M. & Zoller, U. (1996) Science Technology and Environment in modern Society - a national project. Technology Education for a Changing Future: Theory, Policy and Practice. The second Jerusalem International science. Technology Education Conference (JISTEC). Jerusalem: January, 1996
31. Gorodetsky, M. Keiny, S. Barak, Y. Weiss, T. Ran, M. Koren, I. & soker, Z. (1996) STS - a collaborative learning project of teaching and student. Technology Education for Changing Future: Theory, Policy and Practice. The Second Jerusalem International Science. Technology Education Conference (JISTEC). Jerusalem: January, 1996
32. Keiny, S. (1996) Beyond Collaboration: Creating a community of Learners. Proceedings of The 17th Annual Ethnography in Education Research Forum. Philadelphia, March 1996.
33. Keiny, S. (1996). Change as a challenge to new thinking in education. Education in a Post Industrial society. What does it mean? (Post Colloquium thought.) MSTE Colloquium. Queens University Kingston. April, 1996.
34. Keiny, S. Zellermyer, M. Johnston, M. Orland-Balleli, J. Dreyfus, A. & Taylor, P. (1996) Constructivism and teachers professional development. A Symposium. Teacher Education: Stability. Evolution and Revolution. Proceedings of The second international conference on Teacher Education MOFET Israel, June, 1996.
35. Keiny, S. (1996) How to change education within a changing world. Proceedings of Focus '96 "Russia on the Volga". Moscow, August 1996.
36. Keiny, S. (1997) Constructivism and science Education, in The Proceedings of History, Philosophy and Science and science Teaching (HPSST), 'Towards Scientific Literacy', June 21-24, Calgary, Canada.
37. Keiny, S. (1997) Constructivism and educational change, in The Proceedings of the 7th European Conference for Research and Instruction (EARLI), August 26-30, Athens.
38. Keiny, S. (1998) Construction of Educative Knowledge as dialectics between Acquisition and Participation: Proceedings of BERA. Belfast, August 1998

39. Gorodetsky, M. & Keiny, S. (1998) Conceptual Change - Learning as Acquisition or Participation, Proceedings of Conceptual change symposium of EARLI, Madrid
40. Keiny, S., Gorodetsky, M. & Dreyfus, A. (1999) STS as a dialectics between Acquisition and Participation Learning (An Interactive Seminar), Proceedings of the 9th IOSTE Symposium, Durban June, 1999
41. Keiny, S. (1999) A Reflective Inquiry on Learning as Inquiry, Proceedings of ISATT 9th conference. Dublin Ireland
42. Keiny, S & Zamir, J. (1999) Understanding teachers learning process as 'participation': by discourse analysis, Proceedings of the ISATT 9th conference, Dublin Ireland
43. Keiny, S., Shachak, M. & AvrieI-Avni, N. (1999) Ecological Thinking: An epistemological model for problem resolution, Proceedings of the HPSSE meeting 'Science as Culture', Padowa. September, 1999.

(c) Refereed Articles

1. Keiny, S. & Jungwirth, E. (1982). "Changing science teachers' role perception and teaching behavior, by means of an experimental course in human relations". *Science Education* 66(5). pp. 789-797.
2. Dreyfus, A., Kushnir, T. & Keiny, S. (1984). "Self-renewal in the school and role perception of teachers: A basic conflict School Organization 4 (1), pp. 41-48.
3. Keiny, S. (1985). "Action Research in the school, A case study. *Cambridge Journal of Education*. 15 (4), pp. 148-154.
4. Keiny, S. & Weiss, T. (1986). "A case study of a School Based Curriculum Development as a model for INSET". *Journal of Education for Teaching* 12(9), pp. 155-162.
5. Keiny, S. & Shachak, M.(1987). "Educational model for environmental-cognition development." *International Journal of Science Education* 9 (4), pp. 449-458
6. Keiny, S. (1987) "Enhancing teachers' professional development through reflexive dialectical process", *Studies in Education* 48 pp. 119-140. (in Hebrew).
7. Dreyfus, A., Keiny, S. & Kushnir, T. (1989). "A search for self-renewal: Models of participation". *Small Group Behavior* 20 (3), pp. 333-343.
8. Keiny, S. & Dreyfus, A. (1989). Teachers self- reflection as a prerequisite to their professional development. *Journal of Education for Teaching*, 15 (1). pp. 53-63.
9. Keiny, S. (1993) "Four Environmental Cognition Dimensions as Criteria for the Evaluation of Conceptual Change and Development in Teachers". *Cybernetics & Human Knowing*. 2 (1) pp.
10. Keiny, S. & Dreyfus, A. (1993) "School Self Evaluation as a Reflective Dialogue Between Researches and Practitioners" *Studies in Educational Evaluation* 19 pp. 281-295.
11. Keiny, S. (1993), "School based Curriculum Development as a Process of Teachers' Professional Development" *Educational Action Research*. 1(1) pp. 65-93.
12. Keiny, S. (1994) "Constructivism and teachers' professional development" *Teaching and Teacher Education* 10(2), pp. 157-167.

13. Gorodetsky, M. and Keiny, S. (1995) "Conceptual Change and Environmental Cognition". *International Journal of Science Education* 17 (2), pp. 207-217.
14. Keiny, S. & Gorodetsky, M. (1996) Curriculum development in Science, Technology & Society. (STS) as a means of teachers' conceptual change. *Educational Action Research* 4(2) pp. 185-195
15. Keiny, S. (1996) A community of Learners: Promoting Teachers to Become Learners. *Teachers and Teaching: Theory and Practice*, 2(2) pp. 243-272
16. Gorodetsky, M. & Keiny, S. & Hoz, R. (1997) Conceptions, Practice and Change. *Educational Action Research* 5(3) 423-433.
17. Keiny, S. (1998) Teachers professional development as a dialogue between school and university. *Theory and Practice in Curriculum Development*, 9. pp 25-37 (in Hebrew)
18. Keiny, S. (1999) Human Rights in History and Civic textbooks: A Case study of Israel A RESPONSE to Ruth Fierer, *Curriculum Inquiry*, 29(4).
19. Keiny, S. (2000) Learning as Knowledge Construction within a Community of Learners: An Attribution to Don Schon, *Cybernetics & Human Knowing* 7(2-3), pp.31-45
20. Gorodetsky, M. Keiny, S. Barak, Y. Weiss, T. (2001). Contextual Pedagogy: Teachers Journey beyond Interdisciplinary, *Teacher & Teaching: Theory & Practice* 9(1) pp. 21-33
21. Keiny, S. (2006) Conceptual Change as both revolutionary and evolutionary processes. *Teachers & Teaching: Theory & Practice*, 14(1) pp.61-72
22. Avriel-Avni, N. & Keiny, S. A new role for teachers of sustainability, conceptualized by the process of action research, *Teachers & Teaching: Theory & Practice* (in press)
23. קיני, ש. (2003) תגובה להזמנה לדין על דו"ח בן-פרץ. *דפים* 36

(c) Invited Books, Chapters and Papers:

1. Keiny, S. (1994) Teachers' professional development as a process of conceptual change, in I. Carlgren, G. Handal & S. Vaage (Eds.) *Research in Teacher Thinking and Practice*. Chap.5 pp.323-337.
2. Keiny, S. (1994) The desert as conceptual frontier, in Lasker, G.E. (Ed.) *Advances in Ecosystems Research*, LLAS pp 31-36.
3. Keiny, S. (1994) A review of Teacher Education within the context of Science and Technology Education, in K. Boersma, K. Kortland and J. van Trommel (Eds.) *Trends in Science and Technology Education: A Review of the 7th IOSTE Symposium*. Science and Technology Education. The Netherlands.
4. Keiny, S. (1997) An invited review on the book: Julian Edge & Keith Richards (Eds.) *Teachers Develop Teachers Research*. *Teachers and Teaching: Theory and Practice*.
5. Keiny, S. (1997) An invited review on the book: Lorain Blaxter, Christina Hughes & Malcolm Tight (Eds.) *How to Research*. *Educational Action Research*.
6. קיני, ש. (1998) דיאלוג בין בית הספר לאקדמיה, כמדיום לפיתוח מורה רפלקטיבי ולחשיבה חדשה בחינוך, אצל משה זילברמן, מרים בן-פרץ ושרה זיו (עורכים) *רפלקסיה בהוראה*: ציר מרכזי בהתפתחות מורה, הוצאת מכון מופת. 266-283.

7. Keiny, S., Shachk, M. & AvrieI-Avni N. (2001) Ecological Thinking as a tool for understanding Urban Ecosystems: A Model from Israel, In Alan Berkowitz, Charles Nihon & Keren Hollweg (Eds.) Understanding Urban Ecosystems: A new frontier for Science and Education, Springer-Verlad, New York, pp.315-327
8. Gorodetsky, M. & Keiny, S. (2001) Participative Learning and Conceptual Change, in Limon, M. & Mason, L. (Eds.) Reframing the Processes of Conceptual Change, Kluwer Academic Publishers. 149-163
9. Gorodetsky, M. & Keiny, S. (2002) Participative learning and conceptual change In M. Limon & L. Mason (Eds.) Reconsidering Conceptual Change: Issues in Theory and Practice, Netherlands: Kluwer Academic Press, pp. 149-163
10. Gorodetsky, M., Keiny, S., Barak, J. and Weiss, T. (2003) Contextual pedagogy: Teachers journey beyond interdisciplinarity. *Teacher and Teaching: Theory and Practice* 9(1) 21-33
11. קיני, ש. (2005) מחקר פעולה כפרדיגמה, כתפיסת עולם, באסופת מאמרים בעריכת דלית לוי: מחקר פעולה: הלכה ומעשה: זיקות פילוסופיות בין מחקר פעולה ובין פרדיגמת המחקר האיכותי. הוצאת ספרים "כליל" מכון מופת 32-23.
12. Keiny, S. (2007) Collaborative learning: A mutual process of knowledge construction of both individual and group, In Michal Zeller Mayer & Elaine Munthe (Eds.) *Teachers Learning in Communities*, Sense Publishers. pp. 61-74
13. Keiny, S. (2009) Interdisciplinarity in the ecological system paradigm: How do we promote our future researchers' ecological thinking? In M.Karanika-Murray & R. Wiesemens (Eds.) *Exploring Avenues to Interdisciplinarity Research: From Cross-to Multi- to Interdisciplinarity*. Nottingham University Press, pp.25-38
14. Keiny, S. & Orland-Barak, L. (2009) Educational action research as a paradigm for change, In Susan Noffke & Bridget Somekh (Eds.) *The Sage Handbook of Educational Action Research*, SAGE publications Ltd. pp.166-177

(d) Published Scientific Reports

1. Keiny, S. Dreyfus, A. & Kushnir, T. (1983) Assessing a model for Self- Renewal in the Secondary School. The Hubert Humphrey Center BG-U. 12 pages.
2. Keiny, S. & Dreyfus, A. (1985). Application of a Self-Renewal Model in the Secondary School. The Hubert Humphrey Center BG-U. Presented to the Ministry of Education. Jerusalem. 15 pages.
3. Keiny, S. (1989). LAHAV (school Based Inservice Education for Teachers): A Model for Teachers Continuous Development. Presented to the Ministry of Education. Jerusalem. 15 pages
4. Keiny, S., Dreyfus, A. & Shachak, O. (1987). Evaluation Program for LAHAV Project. Stage 1. 62 pages. Presented to the Chief Scientist of the Ministry of Education. Jerusalem.

5. Keiny, S. Dreyfus, A. & Shachak, O. (1988). Evaluation Program for LAHAV Project. Stage 2. 104 pages. Presented to the Chief Scientist of the Ministry of Education. Jerusalem.
6. Keiny, S. (1989) Evaluation of LAHAV Project. Stage 3. Presented to the Pedagogical Council of the Ministry of Education. Jerusalem. 86 pages.
7. Keiny, S., Gefen, H., Shachak, D. and Feital, A. (1990) Evaluation of the Comprehensive Community School Project, Stage 1. (35 pages)
8. Keiny, S. & Gefen, H., (1991) Evaluation of the Comprehensive Community School Project Stage 2. (50 pages)
9. Barak, Y. Keiny, S. & Gorotedsky, M. (1995) Science Technology & Society (STS) project-Report on progress.
10. Keiny, S. (1995) Desert and Desertification. First curriculum module developed within the STES project.

(e) Unrefereed professional Articles and Publication

1. Keiny, S. (1983) Sdeh Boker Version for Environmental Education. Sevivot 7 pp. 39-48. (in Hebrew)
2. Keiny, S. & Erez, D. (1986), Involving teachers in SBCD in social issues, Maalot A. (Hebrew Journal for Education & Teaching). Teachers Association Pub. pp. 42-51. (in Hebrew)
3. Keiny, S. (1988) Environmental Education as an alternative theory of Education. Sevivot, 2(0) pp. 168-181. (in Hebrew)

(f) Unpublished Articles

1. Keiny, S. (1992) The role of the evaluator: Is there such a thing as an independent evaluation
2. Elbaz, F. & Keiny, S. (1993) Teachers knowledge and the curriculum development process: Two views of conceptual change. Workshop on Teachers' Pedagogical Knowledge, Tel Aviv University, June, 1993.

7. Lectures & Presentation at Meetings & Invited Seminars

(b) Presentation of papers at conferences

- 1980 The effectiveness of a Human Relation's Workshop, in changing teachers' role perception, Ayala (Israeli Organization for Educational Research). The Hebrew University of Jerusalem.
- 1980 Changing teachers' professional-self and actual behavior. The Teacher as a Person. First International Colloquium. Jerusalem.
- 1982 The Comprehensive School project, in search of school renewal. Ayala. Tel-Aviv University.
- 1983 A conceptual model for Environmental Education curriculum development. World Environmental Education Conference Cairo,
- 1984 On student centered curriculum in Curriculum in the Maxine An International Symposium. University of Haifa, March.

- 1984 Training an educator, Conference on Inservice Teacher Education. Tel-Aviv University.
- 1984 Action Research in the school. 1st International Conference on Education in the 90's Tel-Aviv, December.
- 1984 An Environmental Education curriculum, a case study for School Based Curriculum Development, School Based Curriculum Development, International Seminar, Tel-Aviv University.
- 1985 Students' conceptual development as a means for Curriculum evaluation in Environmental Education. The 16th Conference of the Israeli Society for Ecology & Environmental Quality Science. Bar-Ilan University.
- 1985 Developing curriculum units as a means of training Environmental Education teachers. Israeli Conference for Environmental Education - Towards the 2000. Sdeh Boker Unit for Environmental Education.
- 1985 System thinking as a prerequisite for Environmental Problem Solving. International Post Conference Seminar on Conceptual Issues in Environmental Education. Sdeh Boker. BGU.
- 1986 Environmental Education in Yeruham, The Bi-National Conference of Holland and Israel on Education. Yeruham.
- 1988 Teachers' self-reflection as a prerequisite to their professional development. International 1988 Conference of ISATT (International Study Association on Teacher Thinking) Nottingham University, England.
- 1989 Conceptual changes and Environmental-Cognition. International Science Teaching Conference. Jerusalem.
- 1989 Developing teachers System-Thinking. International Science Teaching Conference. Jerusalem.
- 1989 School-Based INSET as a medium for teachers' professional development , International Conference on School Based Innovations: Looking Forwards Towards the 1990's. Hong-Kong University.
- 1990 Constructivism and teachers' professional development, International Congress for Teacher Thinking Beer Sheva: Ben Gurion University of the Negev.
- 1992 Assessing Involvement as a dimension of Environmental Education, International Conference of Philosophy and History of Science and Science Education, Canada, Kingston.
- 1993 Enhancing teachers to teach for diversity, in the International conference 'Enhancing the quality of Teaching in colleges and universities'. The University of South Carolina, Charleston, February, 1993
- 1993 Developing an Integrative-Science Curriculum as a Process of 'teachers' conceptual change. International Conference 'Science Education in Developing Countries: From Theory to Practice' Jerusalem January 1993.
- 1993 The relationships of teachers' collective conception and school renewal, International Conference 'Science Education in Developing Countries: From Theory to Practice' Jerusalem January 1993.
- 1993 Teachers' professional development as a process of conceptual change, The 6th international conference of ISATT 'Teachers Thinking and Action in varied contexts. University of Goteborg, Sweden. July, 1993.
- 1993 Teachers' professional development: A dialogue between universities and schools. International Conference on Teacher Education: From Practice to Theory, MOFET

- Institute, Tel-Aviv June 1993.
- 1993 Keiny, S. Promoting higher levels of learning through SBCD, The International Conference 'Cybernetics in the Art of Learning' The American Society for Cybernetics (ASC). The University of the Arts, Philadelphia, November 1993
- 1993 Keiny, S. The Desert as Conceptual Frontier, The International Conference 'Regional Development - The Challenge of the Frontier' BGU, Ein-Bokek, December, 1993.
- 1994 Keiny, S. & Gorodetsky, M. (1994) STS curriculum development as a means of teachers' conceptual change, 7th IOSTE Symposium Science and Technology Education in a Demanding Society. Veldhoven, The Nederland 23-31 August.
- 1994 Gorodetsky, M. & Keiny, S. (1994) Implementation of a model for teachers' conceptual change, International Symposium on Conceptual Change Friedrich-Schiller University of Jena, Germany, September 1-3.
- 1995 Keiny, S. & Gorodetsky, M. (1995) Beyond collaboration: Creating a community of learners. A paper presented at the 7th International conference of ISATT (International Study of Teachers Thinking). 'Thinking together: Changing Research and Practice'. Brock University, St. Catharines Canada. 30 July -3 August.
- 1995 Gorodetsky, M. & Keiny, S. (1995) Content Pedagogy and World View: An STS project, A paper presented in The 3rd International Conference of 'History Philosophy and Science Teaching'. Minneapolis, Minnesota, 29th October - 4th November.
- 1995 Keiny, S. (1995) Beyond collaboration: Creating a community of learners. A paper presented at The Herbst Memorial Seminar 'The Product of Work is People'. Work Research Institute, Oslo 19 - 23 June.
- 1995 Dori, Y. & Zoller, U. Keiny, S. (1995) STES curriculum development as a process of Conceptual Change. A paper presented in a symposium on: 'Multi-Dimensional Research-Based Approach to STES/HOCS-Oriented Teaching and Curriculum Development NARST Meeting April 1995
- 1996 Dori, Y. Keiny, S. Gross, M. & Zoller, U. (1996) Science technology and environment in modern society - a national project. A symposium presented in Technology Education for a Changing Future: Theory, Policy and Practice. The Second Jerusalem International Science, Technology Education Conference (JISTEC). Jerusalem: January, 1996
- 1996 Gorodetsky, M. Keiny, S. Barak, Y. Weiss, T. Ran, M. Koren, I. & Soker, Z. (1996) STS - a collaborative learning project of teachers and students. A symposium presented in 'Technology Education for a Changing Future: Theory. Policy and Practice'. The Second Jerusalem International Science, Technology Education Conference (JISTEC). Jerusalem: January, 1996
- 1996 Keiny, S. (1996) Beyond Collaboration: Creating a community of Learners. A paper presented in The 17th Annual Ethnography in Education Research Forum. Philadelphia, March 1996
- 1996 Keiny, S. Zellermyer, M. Johnston, M. Orland-Balleli, J. Dreyfus, A.* Taylor, P. (1996) Constructivism and teacher professional development. A Symposium presented in The Second international conference on Teacher Education: Stability, Evolution and Revolution. MOFET Israel, June, 1996.
- 1996 Keiny, S. (1996) How to change education within a changing world. A paper presented in Focus '96 "Russia on the Volga", Moscow, August 1996.
- 1998 Keiny, S. (1998) Construction of Educative Knowledge as dialectics between Acquisition and Participation: A paper presented at BERA, Belfast, August 1998

- 1998 Gorodetsky, M. & Keiny, S. (1998) Conceptual Change - Learning as Acquisition or Participation, A paper presented in Conceptual Change symposium of EARLI Madrid 1-3 October 1998.
- 1999 Keiny, S. (1999). Learning as knowledge construction within a community of learners, àAn attribution to Don Schonî. Ben Gurion University of the Negev January 1999
- 1999 Keiny, S., Gorodetsky, M. & Dreyfus, A. (1999) STS as a dialectics between Acquisition and Participation Learning (An Interactive Seminar) presented in the 9th IOSTE Symposium in Durban June, 1999
- 1999 Keiny, S. (1999) A Reflective Inquiry on Learning as Inquiry, a symposium presented in ISATT 9th conference, Dublin, Ireland
- 1999 Keiny, S & Zamir, J. (1999) Understanding teachers learning process as 'Participation': by discourse analysis, a paper presented in ISATT 9th conference, Dublin Ireland
- 1999 Keiny, S., Shachak, M. & Avriel-Avni, N. (1999) Ecological Thinking: An epistemological model for problem resolution, A paper presented in HPSSE meeting 'Science as Culture', Padowa. September, 1999
- 2000 Keiny, S. Ecological Thinking: A new approach to Educational Change, A paper presented in the 44th Annual Meeting of the International Society of System Sciences (ISSS) June, Toronto Canada
- 2000 Keiny, S. Learning communities for Educational Reform, , A paper presented in the 44th Annual Meeting of the International Society of System Sciences (ISSS) June, Toronto Canada

(c) Seminars at Universities and Institutions

- 1989 - Science Education, University of Indiana, Bloomington, USA
- 1992 - Cambridge Institute of Education, Cambridge, UK
- 1992 - CARE (Center for Applied Research in Education) School of Education University of East Anglia, Norwich, UK
- 1992 - School of Education, University of Sheffield, Sheffield UK.:

(d) Participation in informal international seminars

- 1993 - Binational (U.S & Israel) Workshop on Teachers' Pedagogical Knowledge, Tel-Aviv University, Israel.

8. Editorship of collective volumes and scientific journals

- Tamir, P. Hofstein A. Ben-Peretz, M. Feinstein, B. Finegold, M. Keiny, S. and Sabar, N; (Eds.) (1983) Preservice and Inservice Education of Science Teachers Rehovoc: Balaban International Science Services. (632 pages).

9. Research Grants

- 1982-3 Ministry of Education, Jerusalem - Pedagogical Council. I500 IS
- 1985-6 Ministry of Education, Jerusalem. Inservice teacher education section. 15,000 IS per year
- 1986-8 Ministry of Education, Jerusalem, Chief Scientist. 25,000 IS per year
- 1988-90 Ministry of Education, Jerusalem, Division of Secondary Education 55,000 IS per year
- 1994-5 Ministry of Education, Harari Report: 'Tomorrow 98' \$82000 per year

- 1994-6 Ministry of Education, Harari Report: 'Tomorrow 98' for A joint 3 universities Project
\$183,000 per 2 years
- 1997-8 Ministry of Education, Harari Report: 'Tomorrow 98' for A joint 3 universities Project
\$175,000 per 1 year

10. Research Students

Dalia Arad	Ph.D	BGU		
Dov Sharir	M.A.	BGU	1995	
Tirza Levin	MA	BGU	1995	
Aviva Cohen	M.A.	BGU	1998	
Eti Chagai	Ph.D.	BGU		
Gila Nagar	M.A.	BGU	1997	
Revital Hieman	Ph.D.	HU Jerusalem	1997	
Noa Avni	Ph.D.	BGU		
Ibra Him EI-Amour	M.A.	BGU	1999	:
Pinchas Kamer	Ph.D.	BGU		

11. Present Activities:

Research in progress

Evaluation of teachers' conceptual change as an indication of their personal professional i
development.

Evaluation of School-Renewal as a consequence of SBCD activity.

Curriculum development in STS