Curriculum Vita

of

Elizabeth Steiner (Maccia)

EDUCATION

- B.S., St. Louis University, 1946
 Major: Zoology; Minors: Chemistry, Philosophy
- M. Ed., University of Missouri, 1949
 Major: Science Education; Minor: Biological Sciences
- M.A., University of Manitoba, 1954
 Major: Philosophy; Minor: Psychology
- Ph.D., University of Southern California, 1957
 Major: Philosophy; Minor: Biological Sciences

TEACHING

Teaching Assistant, General Chemistry and General Zoology, St. Louis University, 1945-46

Instructor, Zoology, University of Kansas, 1947

Teacher, Physical and Biological Sciences, Kanawha High School, Kanawha, Iowa, 1949-50

Teacher, Anatomy and Microbiology, Los Angeles City College, 1950-52

Teacher, Physical and Biological Sciences, Los Angeles Senior High School, 1951-52

Instructor, Philosophy, University of Manitoba, 1953-54

Lecturer, Philosophy, University of Southern California, 1956-57

Assistant Professor, Philosophy, Marietta College, Marietta, Ohio, 1957-60

Professor, Philosophy of Education, The Ohio State University, 1961-66

Professor, Philosophy, University of Southwestern Louisiana, 1966-67

Professor, Philosophy of Education and Research Methodology, School of Education, Graduate School, Indiana University, 1967-90

Professor, Women Studies Programs, College of Arts and Sciences, Indiana University, 1973-90

Honors Professor, Indiana University, 1985-90

Professor Emeritus, Indiana University, 1990

RESEARCH POSITIONS

Chemist, Atlas Powder Co., Weldon Springs, Missouri, 1943

Chemist, Scullin Steel Co., St. Louis, Missouri, 1944-45

Microbiologist, Wood Treating Chemicals Co., St. Louis, Missouri, 1947-48

Research Associate (1960-61), Assistant Professor and Philosopher (1961-62), Associate Professor and Philosopher (1962-64), Professor and Philosopher (1964-65), Bureau of Educational Research and Service, The Ohio State University

ADMINISTRATIVE POSITIONS

Research Coordinator, Institute of Child Development and Family Life, The Ohio State University, 1960-61

Co-director, Educational Theory Center, The Ohio State University, 1962-66

Co-director, Social Studies Curriculum Center, The Ohio State University, 1963-66

Director, Program in Educational Inquiry Methodology, Indiana University, 1973-76

Director, National Science Foundation Pre-College Teacher Development in Science Program, Indiana University, 1979

Director of Graduate Student Activities, Historical, Philosophical and Comparative Studies of Education, Indiana University, 1976-81

Chair, Philosophy of Education Program, Indiana University, 1976-81

Director, Overseas Study Program at Hangzhou University, People's Republic of China, 1988

Director of Graduate Studies, Philosophy of Education Program, Indiana University, 1981-90

VISITING PROFESSORSHIPS

Visiting Professor, Graduate Studies in Education, The Ohio State University, Summer 1959

Visiting Professor, Psychology of Education, University of British Columbia, Summer 1960

Visiting Professor, Philosophy of Education, University of California at Los Angeles, Summer 1963

O'Connor Professor in American Institutions, Colgate University, Spring Semester 1979

Visiting Professor of Postgraduate Studies, National University of Mexico, Mexico City, 1981

Fulbright Professor, Philosophy of Education, Federal University of Rio de Janeiro, 1981

Visiting Professor, American Studies Center, University of Warsaw, 1984

Visiting Professor, University of Zagreb, 1984

Visiting Professor, Institute of Sociology, Hungarian Academy of Sciences, 1984

Visiting Professor, The Czechoslovak Academy of Sciences, 1985

INVITATIONS: A SELECTION

To present a paper, "Development of Theory in the Curriculum Field," as part of Temple University Faculty Seminar in Curriculum, 1968

To present a paper, "Use of SIGGS Theory Model to Characterize Education Systems as Social Systems," as part of a section on man in systems, American Association for the Advancement of Science, Dallas, 1970

To present a paper, "Comparative and International Education as a Field of Inquiry," at the First World Congress of the Comparative Education Society, Ottawa, Canada, 1970

To present a paper, ""Information Theoretic Extension of the Cybernetic Model and Ecological Systems Analysis," at the European Meeting of Cybernetics and Systems Research, Vienna, 1970

To consult on a nursing curriculum research project and to conduct a colloquium for faculty at Louisiana State University Medical Center in New Orleans, 1971

To report on SIGGS (general systems theory model developed by G. Maccia and myself) at Moscow Institute of the History of Science and Technology, Moscow University, 1971

To participate in and read a paper, "Information Theoretic Extension of the Cybernetic Model and Theory of Education," at the International Congress of Cybernetics and Systems, Oxford University, 1972

To serve as Vice-President of Commission 9, Methods of Research, and to present a paper, "On the Contribution of Logic to the Science of Education," at the International Congress of the International Association for the Advancement of Educational Research, Sorbonne, 1973

To present a paper, "The Structure of Knowledge of Education," in the first section on philosophy of education of a world congress of philosophy, Varna, Bulgaria, 1973

To respond to a paper by Rosen on the teaching of moral negotiation at the Ohio Valley Philosophy of Education Society, Cincinnati, 1974

To present a mini-course, "Logical and Conceptual Analytic Techniques for Educational Researchers," for participants at the American Educational Research Association Meeting in San Francisco, 1976

To conduct a seminar in research in art education at the annual meeting of the Art Education Association in Philadelphia, 1977, and for which a monograph, "Criteria for Theory of Art Education," was prepared

To give, as originator of educology, the keynote paper, "Educology: Its Origin and Future," at a symposium on educology held in New York at the annual meeting of the American Educational Research Association, 1977

To lead a workshop in Art Education Theory sponsored by the Seminar for Research in Art Education, an affiliate of the National Art Education Association, Indiana University, 1977

To present a tutorial on the logic and epistemology of systems theory to be videotaped for classroom use, for the participants at the meeting of the American Association for the Advancement of Science, Washington, D.C., 1978

To be a participant and to present a paper, "A Platform for Research on Teaching Process in Arts and Aesthetics," at the opening session of the Conference on the Teaching Process and the Arts and Aesthetics, Institute for Humanistic Studies, Aspen, Colorado, 1978

To present a paper, "Scholarship and Social Action," to the John Dewey Society, Chicago, 1979

To participate as a faculty member in DIALECTICAL METHODOLOGIES IN THE HUMAN SCIENCES at the Inter-university Centre of Postgraduate Studies, Dubrovnik, 1979

To chair, participate in, and read a paper on educology as a liberal study at the national convention of the American Educational Studies Association in Cincinnati, 1980

To present the annual invitational address on Educology of the Free at the first session of the Philosophy of Educational Society in San Francisco, 1980

To present a symposium on the development of art education theory to the faculty and graduate students at The Ohio State University, 1981

To participate in a centennial conference on Ethics and Economics at the College of Business Administration, Marquette University, 1981

To present a paper, "Education for Freedom," at the American Society for Cybernetics, Foothill College, Los Altos Hills, California, 1983

To present a paper, "Agora through Education for Freedom," at the World Congress of Comparative Education, Paris, 1984

To present a major address at the first international meeting on educology, Educology 86, at the National University of Australia, 1986

To present a paper, "Educology as a Liberal Study for Excellence in Schooling," at the South Pacific Association for Teacher Education, Fremantle, Australia, 1986.

To conduct a workshop on the epistemic critical commentary, a method for bringing honors students to a critical understanding of classical texts, at the National Collegiate Honors Council, Twenty-First Conference, Miami, 1986.

To participate in a forum at Guilford College on the Educated Women sponsored by the National Collegiate Honors Council, Greensboro, 1987

To chair and participate in a workshop on Women and Honors Education, National Colegiate Honors Council Twenty-Second Annual Conference, Dallas, 1987

To present a paper, "A Description of Tutorial Knowledge Acquisition," and to participate in a symposium on knowledge acquisition at the 4th International Conference on Systems Research, Informatics and Cybernetics, Baden-Baden, 1988

To present a paper, "A Working Text on Inquiry, Logic, and Methods" and to participate in LOGICA '88 sponsored by the Czechoslovak Academy of Sciences, Dobris, 1988

PUBLICATIONS

ARTICLES: A SELECTION

"The Complete Art of Research," <u>The Graduate School Record</u>, The Ohio State University, 1961

"Epistemological Considerations in Relation to the Use of Teaching Machines," Educational Theory, Vol. XII, No. 4, 1962, and reproduced in Teaching and Learning, edited by Donald Vandenberg, University of Illinois Press, Urbana, 1969

"Limits of Language" (with R. Fischer), Cosmos, Vol. 11, No. 17, 1962, and also published in Experientia, Vol. 19, 1963

"Making Clear Our Ideas About Teaching Machines," Theory into Practice, Vol. 1, No. 1, 1962

"The Separation of Philosophy from Theory of Education," Studies in Philosophy and Education, Vol. 11, No. 2, 1962, and reproduced in Readings on the Philosophy of Education, edited by John Martin Rich, Wadsworth Publishing Company, Inc., Belmont, California, 1966

"The Synthetic Phase of Philosophy of Education Must Decide," Studies in Philosophy of Education, Vol. 111, No. 2, 1963

"Logic of Education and of Educatology: Dimensions of Philosophy of Education," Proceedings of the Twentieth Annual Meeting of the Philosophy of Education Society, 1964, and reproduced in Perspectives on Education as Educology, edited by James Christensen, University Press of America, 1981

"Instruction as Influence Toward Rule-Governed Behavior," Theories of Instruction, edited by James B. MacDonald and Robert R. Leeper, Washington, D.C.: Association for Supervision and Curriculum Development, 1965, and reproduced in Contemporary Thought on Teaching, edited by Ronald T. Hyman, Prentice-Hall, Inc., New Jersey, 1971

"The Model in Theorizing and Research," Occasional Paper 65-180, The Bureau of Educational Research and Service, The Ohio State University, 1965, presented at the Ninth Annual Convention of the International Reading Association, Detroit, May 5-8, 1965, and published in Institute V <u>Use of Theoretical Models in Research</u>, International Reading Association, Newark, Delaware, 1966

"Educational Theorizing Through Models" (with G. S. Maccia), Alberta Journal of Educational Research, Vol. XII, No. 3, Sept. 1966

"The Concept of Education," Studies in Philosophy and Education, Vol. VI, No. 1, 1968

- "Development of Theory in the Curriculum Field," Samplings, Vol. 1, No. 3, 1968
- "Educational Theory Developed Through the SIGGS Theory Model" (with G. Maccia), Scientia Paedagogica Experimentalis, Vol. VI, No. 1, 1968
- "From the SIGGS Model to a Strategy for Education Within Developing Countries" (with G. Maccia and J. Andris), Systematics, Vol. 7, No. 4, 1970
- "Analysis as Metatheorizing," Philosophy of Education 1970, edited by Harold B. Dunkel, Southern Illinois University, Edwardsville, Illinois, 1970
- "Toward Educational Theorizing Without Mistake," Studies in Philosophy and Education, Vol. VII, No. 2, 1970
- "Philosophy of Educational Science," Viewpoints, Vol. 47, No. 3, 1971
- "Use of SIGGS Theory Model to Characterize Educational Systems as Social Systems" (with G. S. Maccia), <u>Man in Systems</u>, edited by Milton D. Rubin, Gordon and Breach, New York, 1971
- "Information Theoretic Extension of the Cybernetic Model and Ecological Systems Analysis" (with G. S. Maccia), Proceedings of the European Meeting of Cybernetics and Systems Research, Vienna, 1972
- "The Non-Identity of Philosophy and Theory of Education," Readings in Philosophy of Education, edited by John Rich, Belmont Publishing Co., 1972
- "Systems Theory and SIGGS Theory Model" (with G. S. Maccia), Proceedings of The XIIth International Congress of History of Science, Moscow, 1972
- "Information Theoretic Extension of the Cybernetic Model and Theory of Education" (with G. S. Maccia), Advances in Cybernetics and Systems, edited by J. Rose, Gordon and Breach, New York, 1973, and reproduced in Theorie a Metoda, Vsta pro filosofil a sociologii CSAV, Vol. VI, No. 1, 1974
- "The Woman Doctorate in the Philosophy of Education Society," Philosophy of Education 1973, edited by Brian Crittendon, Southern Illinois University, 1973
- "On the Contribution of Logic to the Science of Education," Proceedings of the International Congress of the International Association for the Advancement of Educational Research, Paris, 1974
- "The Structure of Knowledge of Education," <u>Proceedings of the XVth World Congress of Philosophy</u>, Varna, Bulgaria, 1974
- "A Neo-Kantian Looks at Teaching Moral Negotiation," Proceedings of the 1974 Annual Meeting of the Ohio Valley Philosophy of Education Society, edited by W. Brownson, Terre Haute, Indiana State University, 1975

"Affirmative Action Plans: A Policy Analysis," <u>Viewpoints</u>, Vol. 51, No. 3, 1975, and reproduced in <u>Affirmative Action in Education</u>, John Dewey Society for the Study of Education and Culture, Glassboro, New Jersey, 1977

- "Women in Educational Research: Affirmative Action Plan," Educational Researcher, 1975
- "The Logic of the SIGGS Theory Model" (with G. S. Maccia), in <u>Systems</u> Research in Education, edited by T. Antoinette Ryan, University of South Carolina, 1978
- "Educology of the Free: A Theory of Liberal Education," in Philosophy of Education 1980, edited by J. Macmillan
- "Teaching Moral Criticism in the Sciences," Viewpoints, Vol. 56, No. 4, 1980
- "Educology: Thirteen Years Later," in <u>Perspectives on Education as Educology</u>, edited by James E. Christensen, University Press of America, 1981
- "The Qualitative Arts in Educational Inquiry," The Journal of Aesthetic Education, January 1981
- "Toward a Conception of the Role of the Arts in Liberal Education," Studies in Art Education, Fall 1984
- "Crisis in Educology" in Educology 86, edited by James Christensen, Educology Research Associates, 1986
- "Educology as a Liberal Study for Excellence in Schooling" in <u>Teacher</u> Education and Excellence in Schooling, Proceedings of the South Pacific Association for Teacher Education, 1986
- "The Platonic Dialectic: The Discussion Method for Honors Students," The National Honors Report, Vol. III, No. 1, 1987
- "Engendering in the Academy through Honors," Forum for Honors, Fall, 1987
- "Agora through Education for Freedom," <u>International Journal of Educology</u>, Volume 1, No. 2, 1987
- "A Description of Tutorial Knowledge Acquisition," Proceedings of the 4th International Conference on Systems Research, Informatics and Cybernetics, 1988

BOOKS AND MONOGRAPHS

Construction of Educational Theory Models, Cooperative Research Project No. 1632, The Ohio State University Research Foundation, 1963 (with G. S. Maccia and R. Jewett

"Educational Theory Models: A Possible Way to Stretch the Bounds of Teacher Education," Cooperative Research Project No. F-105, Analysis and Projection of Research in Teacher Education, The Ohio State University Research Foundation, 1964

Development of Economics Curricular Materials for Secondary Schools, Cooperative Research Project No. HS-082, The Ohio State University Research Foundation, 1966 (with E. Furst, R. Jewett, and M. Lovenstein)

Development of Educational Theory Derived from Three Theory Models, Cooperative Research Project No. E-022, The Ohio State University Research Foundation, 1966 (with G. S. Maccia)

Women and Education, Charles Thomas Pub., 1975

Logical and Conceptual Analytic Techniques for Educational Researchers, University Press of America, 1978

The Anatomy of Moral Criticism in the Sciences, National Science Foundation Project SPI-79-01221, Indiana University, 1980

Education and American Culture with Arnove and McClellan, Macmillan, 1980

Educology of the Free, Philosophical Library, 1981

Methodology of Theory Building, Educology Research Associates, 1987

THESES

"The Present Status of the Mechanism-Vitalism Controversy," M.A. Thesis, University of Manitoba, 1954

"A Critical Analysis of Teleological Explanation in Biology," Ph.D. Thesis, University of Southern California, 1957

RESEARCH PROGRAM

As a scientist and then a philosopher among whose specialties are philosophy of science and logic, my concern within Education at both The Ohio State University and here at Indiana University is Education as a field of study. To distinguish education as what is studied from Education as a field of study, I have introduced Educology for the latter. Thus, I am engaged in an on-going logical analysis of Educology under the following headings:

- 1. Methods for the Study of Education
- 2. Primary Units of Educational Life: Student, Teacher, Curriculum and Setting
- 3. Fundamental Educational Processes: Studenting and Teaching
- 4. Basic Educational Institutions
- 5. Educational Systems

This logical analysis has resulted thus far in delineating theoretical methods for studying education and in delineating educology and its branches. Moreover, I have been concerned both to develop science of education and philosophy of education through on-going educational theory construction. The work in the science of education centers around the construction of the SIGGS Model (an integration of set theory [S], information theory [I], graph theory [G], and general systems theory [GS]), while that in philosophy of education around the construction of EDUCOLOGY OF THE FREE (a theory of liberal education).

Also as a philosopher whose specialty is logic I am concerned to apply logic as a critical tool in decision-making about the morality of human behavior, particularly that of scientists, technologists, and teachers. An approach termed moral criticism has been explicated and curricular materials for professional moral education are being developed.

As a woman in Academe, I am concerned about the quality of the female's academic space. Currently I am investigating the pervasive features of the female professorial workspace in all its dimensions: physical, psychical, and social. Moreover, I am concerned with women's education. My inquiry is directed toward a global curricular design based upon knowledge of women's education throughout the world.