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ABSTRACT

The third in a series of geography bibliographies published by the Geography Curriculum Project, this bibliography provides an overview of work in the field of geographic education and research according to particular areas of interest from 1965 through July 1975. Three main sources were searched for entries: ERIC Data Base, "Dissertation Abstracts International," and the "Education Index." The chapters include: (1) history and philosophy; (2) curriculum--concepts, disciplines, structure, and urban geography; (3) method--inquiry, models, field work, games and simulation, maps, and media; (4) materials--analyses of texts, visuals, and geography projects; (5) evaluation--course, achievement, and awareness evaluation; and (6) teacher training--institutes, elementary, secondary, and college. Each entry contains the title, author, journal, pages, volume, and date. An author index concludes the document. (Author/JR)

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INVENTORY OF RECENT U. S. RESEARCH IN GEOGRAPHIC EDUCATION



Robert N. Saveland
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FOREWORD

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This Inventory of Recent U.S. Research in Geographic Education is the third bibliography circulated to the profession through the Geography Curriculum Project, University of Georgia. Previous bibliographies which have been issued and which are still available are A Bibliography for Geographic Education (Ball, 1969) and Bibliography on Geographic Thought, Philosophy, and Methodology, 1950-1974 (Wheeler, 1975).

Bibliographies make an important contribution to scholarly research by identification of the literature. In-depth reviews are needed which analyze and synthesize the state of thought and the quality of research in geographic education. Hopefully, this inventory will facilitate the next step of preparing an essay, or series of critical essays, on recent research in geographic education.

The Geography Curriculum Project is pleased to cooperate in this effort.

M.J. Rice, Director

INTRODUCTION

The impetus for compiling this inventory came from the United Kingdom as the result of a request from M.C. Naish of the University of London, Institute of Education, to prepare a report on recent United States research in geographic education. The Geographical Association paper No. 18, Some Aspects of the Study and Teaching of Geography in Britain: A Review of Recent British Research, was suggested as a model. In consideration of this request, it became apparent that it would first be necessary to prepare an inventory and selected bibliography of U.S. research.

In April 1972 a special issue (Vol. LXXI, No. 4) of The Journal of Geography on "Research in Geographic Learning" was published. This contained excellent essays on the prospects, nature, process, and dissemination of research in geographic education, but did not include a comprehensive search of the literature. Prior to this, in 1967, the National Council for Geographic Education published Research Needs in Geographic Education: Suggestions and Possibilities, which was based on a conference held in October of 1964 at Columbia University's Greystone Center. Likewise, this publication omitted a review of research representative of the range and direction of studies in the 1950's and 60's. From these and other sources, it is clear that in the last decade serious interest has focussed on the questions--what are researchable topics in geographic education, what has research been accomplishing in geographic education, and what are the priorities for these topics in today's educational milieu. However, there has not always been agreement on these questions, nor

indeed on whether these are the truly relevant and important questions.

Research, whether in geography or some other academic discipline, evolved as a significant and legitimate human activity from the early methodologies and techniques practiced in the natural sciences. In general, such activities were empirically based and followed lines of inductive and deductive reasoning [observation → idea formulation → preliminary testing, more data collection, and experimentation → theory formulation → final testing → conclusion (theory acceptance or rejection).]¹ Such a format labelled broadly "scientific" has served as a guide for most activities termed research that are carried on in academic institutions. There are many ways in which these activities are pursued and there are great variations in the degree of rigor applied to such activities. For example, Massialas has distinguished three types of strategies used in research:

- (1) common sense observation and generalization
- (2) a quasi-scientific approach
- (3) a rigorous, scientific approach²

The common sense approach, he asserts, includes studies that advance claims without supporting hard data, tests, and evaluations, or as he puts it, "such studies are frequently of the I-used-such-and-such- classroom-aids-and-I-got-favorable-results-type." The

¹ See Robert W. Durrenberger, Geographical Research and Writing (Thomas Y. Crowell Co., New York, 1971), p. 20.

² Byron G. Massialas, Research Prospects in the Social Science (Bloomington, Ind.: School of Education, Indiana University, 1962), p. 10.

second type, quasi-scientific studies, lack adequate controls and testing methods. Limitations as to their validity result from failure to analyze assumptions and concepts thoroughly. Such studies, however, may contain valuable insights of a more general or preliminary nature. Rigorous scientific analysis, the third category, by contrast, is explicit in its background methodology, employs up-to-date techniques, details its experiments and tests, and relates accurately its findings and conclusions. Massialas notes that few studies of the scientific type exist in the social studies. As this inventory indicates, despite more than a decade of progress, the record of rigorous scientific research projects in geographic education is meagre. Most of the studies, reports, and projects contained in this inventory fall into the first two categories suggested by Massialas, a fact that tells us much about the status and condition of contemporary research in geographic education.

JUSTIFICATION

As presented here, this inventory provides an overview of work in the field of geographic education according to particular areas of interest and periods of time. As such, it has immediate practical use by the student who is searching out topics for study, or who is preparing a review of the literature for a dissertation. For other researchers, this inventory can suggest neglected areas of investigation. It may call attention to studies which have already been done, thus avoiding duplication of effort and aiding the dissemination process. Writers and editors of journal articles

may find this inventory especially helpful. Teachers may use it in preparing reading lists for their classes. A study of listings under particular topics can lead to new syntheses. In balance, this and future inventories should contribute to an improvement in the quality of research in geographic education.

THE COMPILATION PROCESS

At the outset it was decided to focus attention primarily on the decade 1965 to 1976, inasmuch as this was to be a review of recent research. Also, possible Canadian entries were omitted because of the national basis for this review. Three main sources were searched for research information and these provided the data for the listed citations. A description of these sources and an explanation of procedures follow.

ERIC DATA FILES

An Educational Research Information Center (ERIC) search was conducted at the Computer Services Division of the University of Georgia from July 26 to July 31, 1975. ERIC Research in Education volumes 68, 69, 70, 71, 72, 73, 74 and 75:01-02 were searched using the following key words and terms:

Geography Curriculum Project

World Geography

Geography of Education

Human Geography

Geographic Education

Physical Geography

Geography Instruction

Area Studies

Maps

Geographic Distribution

Map Skills

Geographic Location

Geographic Regions	Teaching
Geography	Instruction

The total number of citations received as a result of this search was 161 distributed as follows:

1968	7	1972	33
1969	4	1973	25
1970	7	1974	31
1971	35	1975	19

These figures suggest a further investigation as to the reasons for the marked increase in citations after 1970. On the whole it can be seen that this is a manageable number with which to be involved in categorizing and classifying.

Dissertation Index

Fortunately there now exists a Comprehensive Dissertation Abstract Author Index 1861-1972³ in 37 volumes. Volume 16 is Geography and Geology. A search was made of this volume for topic headings applicable to this inventory. These included: (1) p. 31 Curricula-Curriculum; (2) p. 42 Education-Educational; (3) p. 57 Grades; (4) p. 86-87 Materials-Methodology; (5) p. 129 School-Schools; and (6) p. 145 Teachers-Teaching.

Relevant pages of Volume 16 were photocopied. The entries were then cut out and pasted on 3 x 5 cards. Following this the cards were sorted according to the classification system used for this inventory.

³Published by Xerox University Microfilms, Ann Arbor, Michigan, 1973.

For the years 1973 to June 1975 it was necessary to consult individual volumes of the dissertation index by months and to transcribe the entries onto cards. Here all references under the heading of "Geography" were investigated, and of those almost 150 applicable to this inventory were selected. Institutional sources of the dissertations are mapped in Figure 1.

Education Index

The Education Index⁴ is a cumulative index to educational material in the English language. Approximately 250 publications are indexed. Selections of periodicals for indexing is accomplished by subscribers voting their preference, giving due consideration to the reference values of the periodicals suggested.

Volumes 16 to 24 cover the period from July 1965 to June 1974. These and Volume 26 through issue No. 10 (July 1975) were consulted in preparing this inventory.

Pages were photocopied which contained references under such headings as:

Geography--	Terminology
Activities	Teaching
Correlation with their subjects	Research
Courses of study	Colleges and universities
Programmed teaching	Junior high schools
Teacher education	Teaching methods

All the articles listed were not classified under the research rubric, consequently it was necessary to make a judgment concerning

⁴Published monthly by H.W. Wilson Company, 950 University Avenue, Bronx, N.Y., 10452.

which ones to include in this inventory. Each of the compilers reviewed the list placing check marks opposite those articles which might be considered research articles. All references checked were then cut out and placed on 4 x 6 cards. After eliminating duplications and sorting into the classification system being used, it was discovered that there was a total of 209 references. Since this was considered to be a manageable number, no further refinement of the list was made to eliminate borderline research articles. Citations are not standardized, but are provided in the form in which they were furnished in the three main bibliographic sources. Indexing alphabetically by author surname is supplied at the back of the listing.

THE CLASSIFICATION SYSTEM

Several traditional and established topics suggested themselves as a basis for primary separation in the card sorting process. These were (1) history and philosophy, (2) curriculum, (3) method, (4) materials, (5) evaluation, and (6) teacher training. Accordingly they were adopted and became the chapters in the inventory.

Research at several educational levels had been carried out. Because researchers are apt to have special interests in work at the elementary, secondary, or college levels, a further subdivision was made. These categories became the basis for the major divisions within each chapter.

After making these separations, it was apparent that a number of sub-categories existed where research had clustered in certain areas. Most obvious of these, of course, is the High School Geography Project. Research interests in this project range from history and philosophy through curriculum and method to teacher training. However,

it was considered desirable to put all the references to the H. S. G. P. in one place, so these entries appear in the "Materials" chapter, their most logical location.

The contents page has a listing of the sub-categories which evolved from the sorting process. These sub-topics indicate special interest areas of research and are side-headings within the chapters. The citations under these headings are usually arranged in chronological order, so that developments through time may be observed. In some instances a topical arrangement is more logical, as in the biography section of Chapter 1 where the studies are arranged alphabetically according to the name of the notable person.

LIMITATIONS

Although this study has been greatly aided by the use of computer bibliography search techniques, these techniques have limitations. Access to the computer search system is gained by a set of one word command statements; obviously, if appropriate key words are not used, then certain relevant studies will not print out. While some of these omissions have been discovered already, especially in checking against Browning's, A Bibliography of Dissertations in Geography: 1901 to 1969,⁵ it is anticipated that readers will call other omissions to our attention.

At first, it was intended to submit our classification system and the inventory to a review board prior to publication. The time lag inherent in such a process, the proddings for responses, the duplication

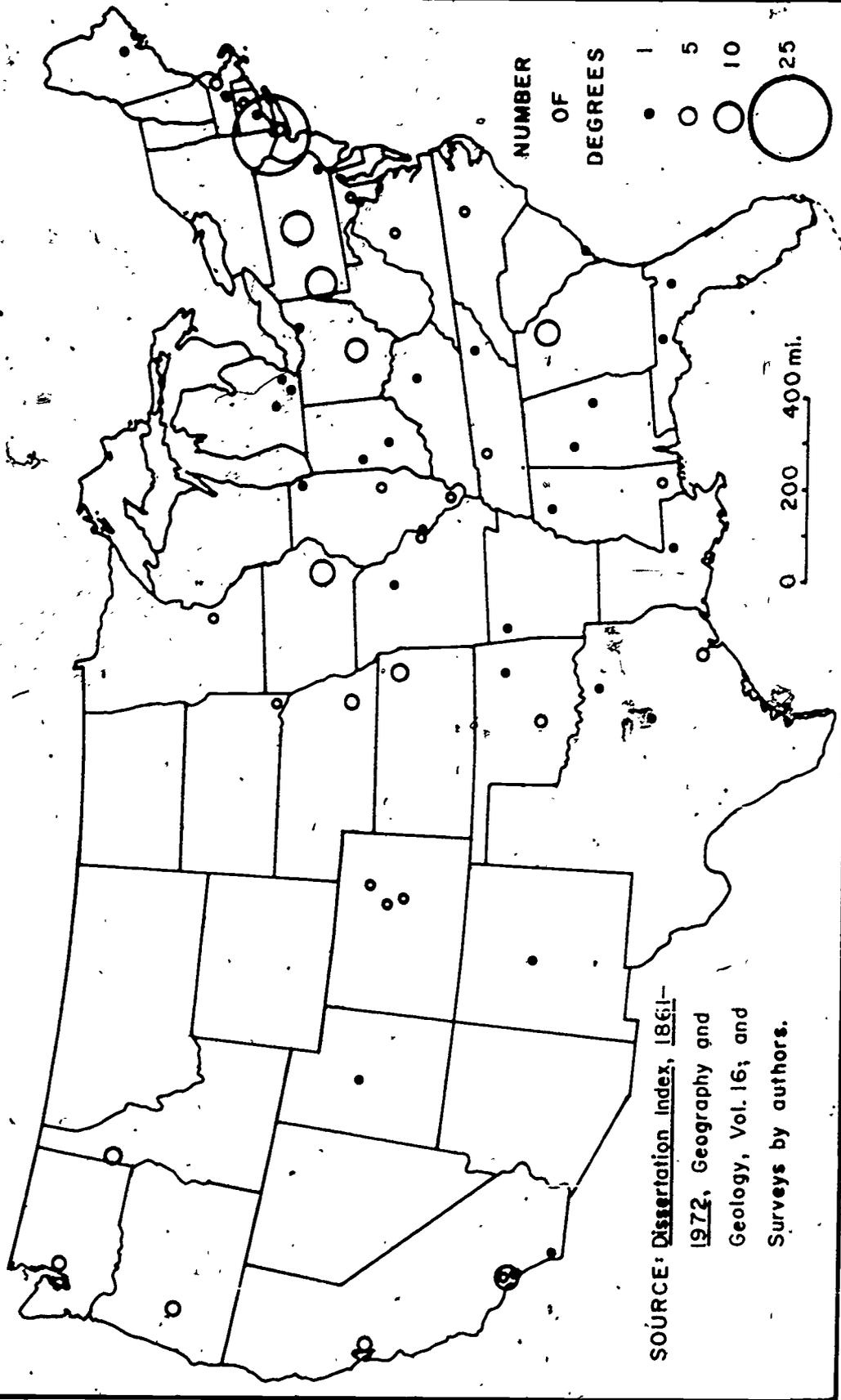
⁵Published by University of North Carolina at Chapel Hill, Department of Geography, Studies in Geography, No. 1, 1970, \$3.00.

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of typing effort, and mailing costs caused us to reconsider this procedure. In practice, the classification system grew out of our card collection and all readers will serve as our review board. As subsequent printings are made, the inventory can be corrected and updated.

Note: The map on the following page shows the location of the institutions where dissertations in geographic education were completed in the period 1910-1975. Dissertations prior to 1965 were included in this inventory of recent research in order to give perspective to the various topics and trends.

DISSERTATIONS IN GEOGRAPHIC EDUCATION, 1910-75



CHAPTER 1. HISTORY AND PHILOSOPHY

General

"State Geographical Societies Today," J.W. Vining, Journal of Geography, 74, pp. 167-79, March 1975.

"What has happened to Geography in the USA?" A.D. Beck, Journal of Geography, 72, p. 7, April 1973.

The Concept of Community: A Geographical Perspective, Palm, Risa Ileen Kahn, (Ph.D. 1972, University of Minnesota), 33/11, p. 5345B.

Research Needs in Geographic Education: Suggestions and Possibilities, Illinois State University, Normal; National Council for Geographic Education, Geographic Education Series Number 7, EDRS Research in Education (ERIC), 1972, 07 ED 059139, 52 p.

"Old Methods Re-examined," N. Proctor, Times (London) Educational Supplement, 2919, pp. 53-5, April 30, 1971. (non U.S.)

The Role of Values in the Teaching of Geography, Cirrincione, Joseph M., (Ph.D. 1970, The Ohio State University), 31/09-A, 155 p.

"Nationalism in Early American Geographies: 1784-1845," M.F. Antonelli, Journal of Geography, 69, pp. 301-5, May 1970.

"Some Trends and their Implications for Geographic Education," A.A. Schmieder, Journal of Geography, 68, pp. 208-15, April 1969.

"Recurrent Themes in the Historical Geography of the United States," J.R. Whitaker, Peabody Journal of Education, 46, pp. 9-13, July 1968.

"More Geography, Not the Elements of...", R.A. Harper, Journal of Geography, 67, pp. 132-3, March 1968.

"Model for Geography," R.L. Nostrand, Journal of Geography, 67, pp. 13-17, January 1968.

"Values in Geography," H.B. Johnson, Journal of Geography, 66, pp. 102-7, March 1967.

"Fundamentals of Geographic Education," R.H. Brown, Journal of Geography, 65, pp. 410-15, December 1966.

"Why Study Geography?" R. Hartshorne, Journal of Geography, 65, pp. 100-2, March 1966.

"Conceptual Structure for Geography," P.E. James, Journal of Geography, 64, pp. 292-8, October 1965.

"Depth and Breadth in Social Geography," N.V. Scarfe, Journal of Geography, 64, pp. 153-8, April 1965.

"Why the Concern?" P. Bacon, Childhood Education, 41, pp. 331-2, March 1965.

"Rediscovering the Earth," G.F. White, American Education, 1, pp. 8-11, February 1965.

"Accents in Geography," H.H. Gross, Journal of Geography, 63, pp. 258-61, September 1964.

Study of Geography in Schools, Chapman A., (Ed.D. 1922, Harvard University) S0084.

Regional

"Regions and Regionalizing," C.F. Kohn, Journal of Geography, 69, pp. 134-40, March 1970.

"Children's Understanding of Regional Geography," B.S. Roberson, Journal of Geography, 67, pp. 152-5, March 1968.

"Regional Geography in Revolution," J.P. Augelli, Journal of Geography, 67, pp. 68-9, February 1968.

"Regional Concept and Geographic Education," J.T. Kostbade, Journal of Geography, 67, pp. 6-12, January 1968.

"Cultural Region: Framework for Teaching World Geography," W.B. Conroy, The Social Studies, 57, pp. 71+, February 1966.

"Brief for Regional Geography," J.T. Kostbade, Journal of Geography, 64, pp. 362-6, November 1965.

Biographies

The Contributions of Albert Perry Brigham to Geographic Education, Burdick, Alger E., (Ph.D. 1951, George Peabody College for Teachers), 134 p. W1951, p. 175.

The Contribution of Richard Elwood Dodge to Educational Geography, Griffin, Paul Francis, (Ph.D. 1952, Columbia University), 261 p., 12/04, p. 510.

Huntington and His Critics: The Influence of Climate on Civilization, Chappell, John E., Jr., (Ph.D. 1968, University of Kansas).

Ellen Semple: Contributions to the History of American Geography, Bronson, Judith Ann Conoyer, (Ph.D. 1973, St. Louis University), 35/05, p. 2877A.

J. Russell Smith: Teacher, Geographer, Conservationist, Rowley, Virginia Marie, (Ph.D. 1961, Columbia University).

Griffith Taylor and Canadian Geography, Tomkins, George Strong, (Ph.D. 1966, University of Washington), 557 p., 27/12-A, p. 4110.

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Elementary

An Analysis of the Status of Geography Education in the Intermediate Grades in a Tri-State Regional Area, Veltkamp, James J., (Ed.D. 1967, University of South Dakota), 183 p., 28/05-A, p. 1635.

Trends in Elementary School Geography, 1928-1948, McAulay, John D.E. (Ph.D. 1949, Stanford University) W1949, p. 125.

Secondary

Geographic Education in Selected High Schools, McCauley, Huey Sifton, (Ed.D. 1969, Auburn University), 165 p., 30/09-A, p. 3642.

"High School Geography and What is Being Done About It," N. Helburn, Social Education, 30, pp. 631-2+, December 1966.

"High School Geography: Retrospect and Prospect," R.C. Anderson, Journal of Geography, 65, pp. 103-8, March 1966.

The Development of Secondary School Geography as an Independent Subject in the United States and Canada, Mayo, William Leonard, (Ph.D. 1964, The University of Michigan), 229 p., 25/12, p. 7027.

Geography in Secondary Education, Anderson, Randall Carl, (Ed.D. 1963, The University of Nebraska-Lincoln), 306 p., 24/06, p. 2318.

The Values of Geography as a High School Subject, Brooks, Nathan C., (Ed.D. 1956, The University of Oklahoma), 281 p., 17/02, p. 267.

A History of the Development of the Course of Study of Geography in the New York City High Schools (1898-1953), Becker, Christian F., (Ed.D. 1954, New York University), 151 p., 15/02, p. 220.

Status

"Status of Geography in the High School Today," M.L. Frick, Journal of Geography, 64, pp. 317-22, October 1965.

The Status of Geography in the Public Senior High Schools of California, Gandy, Willard Eugene, (Ed.D. 1960, Stanford University), 200 p., 20/11, p. 4347.

Factors Affecting the Exclusion of Geography From the Curriculum of Certain Colorado High Schools, Underwood, Robert Marshall, (Ed.D. 1964, University of Northern Colorado), 151 p., 25/09, p. 5209.

"Status of Geography in the Secondary Schools of Connecticut," W.M. Glowacki, Journal of Geography, 69, pp. 434-6, October 1970.

The Status of Geography in the Upper Secondary Grades of the Idaho Public Schools, Strader, Robert, (Ed.D. 1970, University of Idaho), 146 p., 3184A.

"Geography and Earth Science in the High Schools of Indiana," J.E. Landing, Journal of Geography, 66, pp. 84-5, February 1967.

The Status of Public Senior High School Geography in Maryland, 1964-65, Cotton, James Vaughn, (Ed.D 1968, The Pennsylvania State University), 205 p., 30/03-A, p. 924.

The Status of Geography in the Public Senior High Schools of Tennessee (1970-1971), McDowell, Horace Greeley, (Ed.D. 1971, The University of Tennessee), 133 p., 32/08-A, p. 4294.

College Geography

The Status of Geography Education in the Two Year Colleges of the United States, Robertson, Floyd Charles, (Ed.D. 1968, Brigham Young University), 108 p., 29/09-A, p. 2903.

"College Geography in the United States," J.F. Lounsbury, Journal of Geography, 67, pp. 282-7, May 1968.

An Examination of Some Factors Related to the Rise and Decline of Geography As a Field of Study at Harvard, 1638-1948, Morris, Rita Mary, (Ph.D. 1962, Harvard University), x1962, p. 64.

CHAPTER 2. CURRICULUM

General

Geography in Elementary and Secondary Education: Tradition to Opportunity, Vuicich G. Stoltman J, Research in Education (ERIC) 10 ED097243, Boulder, Colorado, 77 p., 1975.

The Geography of Education and Educational Planning, Ryba, R.H., Research in Education (ERIC), 09 ED087673, Summary of paper presented at the International Geographical Congress (22N D, Quebec), Symposium CA7, "Geography in Education," EDRS, 7 p., 1974. (non U.S.)

"Recent Trends in Geography and their Implications for Supervision of Instruction," P.O. Okunrotifa, The Social Studies, 65, pp. 307-10, December 1974.

"Geography in the Curriculum," H.J. Warman, The Educational Forum, 31, pp. 167-72, January 1967.

The Earth is the Home of Man A Study in the Foundations of Geography in the Curriculum, Dolphin Vernon Malcolm, (Ph.D. 1971, Harvard University), x1971, p. 195.

"Curriculum Planning for Geographic Education," G.S. Tomkins, Social Education, 31, pp. 621-4, November 1967.

"Scope of Geographic Study," H.G. Kariel, Journal of Geography, 66, pp. 150-4, April 1967.

Scope and Sequence of Geographic Education in the Modern School Curriculum Grades Four Through Twelve, Casper, Berenice M., (Ed.D. 1959, University of Nebraska).

"Dimensions of Geography in the School Curriculum," J.R. Borchert, Journal of Geography, 64, pp. 244-9, September 1965.

"Modern Geography Curriculums," C.F. Kohn and others, NEA Journal, 54, pp. 58-60, January 1965.

Integrating Disciplines

Contributions of the Discipline of Geography to the Social Studies, DeLeeuw, G., Research in Education (ERIC) 04 ED066380, 18 p. 1972.

History as an Integrative Discipline, Mattran, G.C.; Rader, W.D., Chicago University, Illinois, Research in Education (ERIC) 07 ED048139, 10 p., 1972.

Geography: An Integrative Discipline: K-6, 1969-70 Final Report, Santa Monica Unified School District, California, Research in Education (ERIC) 06 ED048053, 195 p., 1971.

Social Studies Teachers Perception of Topics in Geography, Bloomer, Francis Eldon, (Ph.D. 1971, The Ohio State University), 215 p., 32/07-A, p. 3549.

The Social Sciences and Geographic Education: A Reader, Ball, J.M. and others, John Wiley & Sons, Inc., New York, Research in Education (ERIC) 06 ED048092, 338 p., 1971.

"On the Interdisciplinary Approach to Geography," W.S. Nowak, Journal of Geography, 69, pp. 401-3, October 1970.

"Balanced Approach to Developing a Geography Curriculum," C.F. Kohn, Journal of Geography, 65, pp. 356-7, November 1966.

"Geographic Guidelines for Reconstructing the Social Studies Curriculum," M. Nishi, Journal of Geography, 65, pp. 328-31, October 1966.

"Geography's Role in General Education," R.A. Harper, Journal of Geography, 65, pp. 177-85, April 1966.

"Geography: Bridge Subject," M.G. Shaw, Minnesota Journal of Education, 46, pp. 23-4, January 1966.

"Geography: Separate Course or Integrated?" J.W. Morris, Journal of Geography, 64, pp. 202-5, May 1965.

"Geography and History as Integrating Disciplines," R.F. Shinn, Jr., Social Education, 28, pp. 395-400, November 1964. (Same cond. The Education Digest, 30, pp. 50-2, February 1965.)

"Geography as an Autonomous Discipline in the School Curriculum," N.V. Scarfe, Journal of Geography, 63, pp. 297-301, October 1964.

Relating Fields of Knowledge to Training for Social Intelligence, With Illustrations from Geography, Emry, June (Ph.D. 1937, University of Oregon) W1937, p. 70.

Knowledge-Structure

"Toward Structuring Geography: What Should be Memorized?" R.E. Schallert, Journal of Geography, 67, pp. 211-12, April 1968.

"Geography and the Organization of Knowledge," W.R. White, Journal of Geography, 66, pp. 496-9, December 1967.

"Geography Teaching and the Structure of the Discipline," H.J. Warman, Journal of Geography, 64, pp. 197-201, May 1965.

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Concepts

"Geographic Concepts: A Need to be Explicit," L.E. Hudman, Journal of Geography, 71, pp. 520-5, December 1972.

Introducing New Concepts of Geography in the Social Studies Curriculum, Ball, J.M., Georgia University, Athens, Research in Education (ERIC) 06 ED048033, 54 p., 1971.

Concepts in the Social Studies, Beyer, B.K. and Penna, A.N., National Council for the Social Studies, Washington, D.C., Research in Education (ERIC) 06 ED049151, 101 p., 1971.

"On the Nature of Concepts," W. Imperatore, Journal of Geography, 69, pp. 173-8, March 1970.

"What Concepts and What Sequences?" M.C. Prunty, Journal of Geography, 65, pp. 300-1, October 1966.

The Disadvantaged

"Retarded Children and the Concepts of Distance and Direction," D.A. Lanegran and others, Journal of Geography, 69, pp. 157-60, March 1970.

"Geography Curriculum Project for the Disadvantaged Learner, K-6," University of Georgia, Athens, Grade Teacher, 87, p. 52, March 1970.

"Geographical Concepts and the Visually Handicapped," F.L. Franks and R.M. Baird, Exceptional Children, 38, pp. 321-4, December 1971.

"Measuring Geographical Concept Attainment in Visually Handicapped Students," F.L. Franks and C.Y. Nolan, Education of the Visually Handicapped, 3, pp. 11-17, March 1971.

"Development of Geographical Concepts in Blind Children," F.L. Franks and C.Y. Nolan, Education of the Visually Handicapped, 2, pp. 1-8, March 1970.

"Geography of Black America: The Growth of A Sub-Discipline," L.T. Lewis, Journal of Geography, 73, pp. 38-43, December 1974.

"Geography and the Black American: The White Papers and the Invisible Man," O.F. Donaldson, Journal of Geography, 70, pp. 138-49, March 1971.

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The Effectiveness of Advance Organizers for Teaching Geography to Disadvantaged Rural Black Elementary Students, Steinbrink, J.E., Georgia University, Athens, Research in Education (ERIC) 05 ED041812, (Ed.D. Dissertation) 277 p., 1970.

Teaching the American Indian in the American School: An Adventure in Cultural Geography, National Council for Geographic Education, Research in Education (ERIC) 06 ED048952, 26 p., 1971.

Navajo Student Cognitive Aptitudes Related to a Geographical Concept of Acculturation Process, Long, Michael Thayne, (Ph.D. 1971, The University of New Mexico), x1971, p. 134.

"Geography and the American Indian," D.J. Ballas, Journal of Geography, 65, pp. 156-68, April 1966..

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