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CONTENT ANALYSIS OF THE JOURNAL OF SPECIAL EDUCATION, 1966 THROUGH 1978

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GRADUATE COLLEGE

CONTENT ANALYSIS OF THE JOURNAL OF SPECIAL EDUCATION, 1966 THROUGH 1978

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

DOCTOR OF PHILOSOPHY

BY

ROBERT D. K. LEE

Norman, Oklahoma

1979

CONTENT ANALYSIS OF THE JOURNAL OF SPECIAL EDUCATION, 1966 THROUGH 1978

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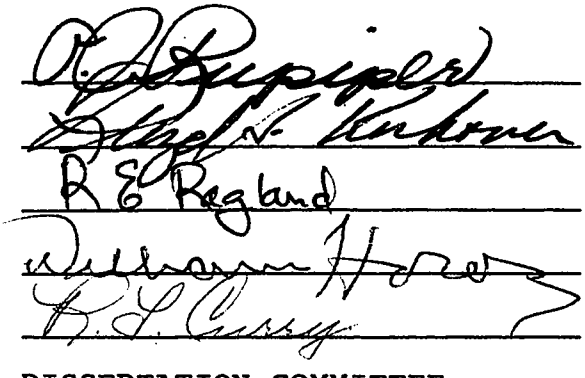

DISSERTATION COMMITTEE

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CONTENT ANALYSIS OF THE JOURNAL OF SPECIAL EDUCATION 1966 THROUGH 1978

CHAPTER I

INTRODUCTION

Issues alluded to in education often focus on children, exceptional children, especially. Many concerns seemed to be directed to topics such as biological problems, psychological problems, social problems, legal issues, classroom management, rights of children, and multi-cultural education. The Education of the Handicapped Act[1] called for care and fairness in the assessment and identification of exceptional children which would not be racially or culturally discriminatory in view of test selection and administration. This process must be multi-facetted and preceded by detailed due process protection. With concerns such as these existing over the past few years and presently, the notion was that articles in professional journals should

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[1]U.S. Congress. Senate. Education for all Handicapped Children Act of 1975. Public Law 94-142 (S. 6), 94th Congress, 1st Session, 1975.

reflect those concerns and focus upon the Zietgiest.

Jones (1973) reported that accountability in special education is coming, "the state of the art simply is not far enough along to justify this kind of activity."[1] In spite of the fact that accountability is not yet appropriate, perhaps more consideration should be given to the training program in special education.

> It is interesting to note that before 1900 individuals concerned with the education of exceptional children were trained primarily in medicine. Some came from other fields, but few from education. In one field--that of the mentally deficient--Itard, Montessori, Seguin, Decroly--were all medical men but made contributions in the field of education rather than in medicine. After the advent of mental testing, psychologists contributed to the field of special education since they were the individuals who diagnosed the abilities and disabilities of exceptional children.
>
> In recent years, however, the work with handicapped and gifted children has become primarily the responsibility of the public schools. It became necessary to train leaders in special education,

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[1] R. L. Jones, "Accountability in Special Education," Exceptional Children, 39 (1973): 631-642.

> since we could no longer depend upon accidental conversions from other disciplines. Many of the classroom teachers who had been trained to work with exceptional children were trained primarily in education. Those who wished to obtain advanced training did so in another area such as clinical psychology or educational administration. Many did not return to leadership positions in special education since opportunities were opened to them within the areas of their new training.[1]

In view of this observation it was assumed that more concern and emphasis would be given to the training of special education teachers. Since the inception of the publication of The Journal of Special Education, was this the concern of the authors as revealed through the type of subject matter of articles published? Gallagher (1959) suggested that training should involve general knowledge of curriculum development, knowledge of special curriculum problems, and knowledge of how to design a curriculum for exceptional children.[2] The question arises as to whether The Journal of Special Education

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[1] S. A. Kirk, "A Doctor's Degree Program in Special Education," Exceptional Children, 24 (1957): 50.

[2] J. J. Gallagher, "Advanced Graduate Training in Special Education," Exceptional Children, 26 (1959): 104-109.

publishes articles relevant to the training of teachers, e.g., curriculum for special education teachers, accountability, and evaluation of services.

Little systematic inquiry into the research activities by special education personnel and topics of investigation have been reported. Such investigations would seem to give an indication as to the amount and concern of persons working in the field. Additionally, clues as to the direction in which the area of special education was taking may be obtained through the kind of topics and frequency with which they were published.

In order to accomplish the task of inquiry into the trends of research activities in special education, it seemed appropriate to summarize articles published in The Journal of Special Education. As an organ representative of the field, it appeared that an examination of the publication would be most relevant to the concern of the status, growth and trend in special education.

Statement of the Problem

The aim of this investigation was to trace the changes of subject matter in articles published in The Journal of Special Education from its beginning, in 1966, through 1978, using content analysis. This investigation proposed (1) to determine the focus of attention

to various topics and concerns relating to exceptional children over time in an attempt to describe trends and to trace the development of the field, (2) to disclose the location of authors by geographic area and type of academic preparation, and (3) to describe the stylistic features of The Journal of Special Education.

In regard to contemporary trends in special education, it was hypothesized that:

1. There is a significant increase in the number of articles related to contemporary topics relevant to the exceptional child, e.g., specific learning problems, emotional disorders, physical problems, social problems, assessment, curriculum management, and professional training, should be evident in The Journal of Special Education from 1966 through 1978.

2. Proportionately, over the period from 1966 through 1978, more topics existed with respect to professional preparation, legal issues, curriculum planning and administration of programs.

3. Authors of articles were adequately represented geographically with the majority holding advanced degrees.

The systematic and objective analysis of the subject matter within The Journal of Special Education

should have theoretical relevance as to the character of the data. The results, in part, should reflect the state of the area of special education.

This investigation was designed to determine the kind of topics and quantification of articles published in the journal by use of content analysis. The analysis was limited to manifest content only, not to latent content, i.e., not to the lexical or verbal features of the articles. The technique for systematically and objectively identifying specified characteristics as proposed by Holsti (1967)[1] was used. Topics and categories were predetermined for classification of the published articles.

Review of Related Literature

A relatively extensive and comprehensive library search of the literature in the area of special education which included textbooks, dissertations, and periodicals revealed that a content analysis of The Journal of Special Education had not been made. The ERIC and CIJE retrieval systems produced negative results, also. In view of this search it was assumed that a systematic

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[1]O. R. Holsti, J. K. Loomba, and R. C. North, "Content Analysis," in G. Lindzey and E. Aronson (eds.), Handbook of Social Psychology (Cambridge, Mass.: Addison-Wesley, 1967).

analysis of published articles in The Journal had not been undertaken.

Classification is necessary, simply for purposes of putting things in order. Classifying requires labeling and rules must be established for appropriate placement of the entities labeled. The monumental work of Hobbs (1975)[1] demonstrated the importance and need for classification of exceptional children. Ten federal agencies joined to sponsor the Project on Classification of Exceptional Children which was reported in this milestone book. A systematic and comprehensive survey of all areas of classification is discussed in terms of theoretical perspectives, e.g., children's rights, community action, and child development in Part One. Part Two points out how classification systems are often void of sophisticated taxonomy, are biased, and exert social control of the individual. Divergent experiences children have in special classes, institutions, and correctional centers are discussed in Part Three. Part Four gives special viewpoints on how children (with emphasis on minorities), parents and professionals are affected by labels, while Part Five takes a look at the legal aspects of ensuring that services are rendered to

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[1] N. Hobbs (ed.), Issues in the Classification of Children (San Francisco: Jossey-Bass Publishers, 1975).

exceptional children. In Part Six consideration is given to public policy.

Two additional sourcebooks that give excellent reviews regarding the field of special education and its development are The First Review of Special Education (1973)[1] and The Second Review of Special Education (1974).[2] In the introduction to The First Review, Mann (1973) points out that:

> Special education represents a particular focus upon exceptional children that is reflected in The Review of Special Education. The familiar and traditional categories of exceptionality are represented everywhere in its pages and are the direct subject of some of its chapters . . . (it) is a review of areas critical to the education of exceptional children. It is also more than that, for many of its chapters represent research thinking and practices which should help to clarify the thinking and practices of its readers. We are presently in the sobering backwash of several decades

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[1] L. Mann and D. A. Sabatino (eds.), The First Review of Special Education (Philsadelphia: JSE Press, 1973).

[2] L. Mann and D. A. Sabatino (eds.), The Second Review of Special Education (Philadelphia: JSE Press, 1974).

> of commitments to premises and practices in teaching the handicapped that have left residues of unfulfilled expectations, as well as accretions of substantial theoretical advance and useful evaluation/intervention approaches . . . not all areas of inquiry are simultaneously ready for a new appraisal. Some are clichéd, tired, and awaiting new infusions of information before they warrant further examination; others are in the flux of new developments or reevaluation and are not quite ready for a review. In short, the areas of special education are not in lockstep with each other.[1]

The Second Review of Special Education continues the tradition of The First Review with comprehensive examinations of major fields and subareas. In some instances the reviews of the voluminous literature are brief with restricted and limited evaluations.

Generally, The Second Review covers material not included in The First Review. In a few instances where topics were previously reviewed and discussed, the reapproach was accomplished from a different perspective with extended debate and discussion, e.g., the area

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[1]L. Mann and D. A. Sabatino (Eds.), The First Review of Special Education (Philadelphia: JSE Press, 1973), pp. 1-2.

of perception and reading and the role of administrators in special education. The Second Review presents a survey of the use of psychotropic drugs, information-processing models, the relationship between reading skills and visual-perceptual and perceptual-motor skills, a history of learning disabilities, the Montessori method, physical education intervention, the use of music with exceptional children, systems approach, computer programs, training special education administrators, and preschool education in Eastern Europe.

These sourcebooks that contain outlines, reviews, discussions, and summaries give the impression of the recent, rapid growth in the area of special education and the exceptional child. Although not definitive, these works present a well-defined, representative cross-section of early thinking and research in the area with a more complete coverage of research in the past decade which reflects current trends and status of the field.

To formulate categories for classifying topics seemed indeed analogous to the recent concern in special education to direct its efforts toward the development in fractionating global and molar areas of behavior and functioning for purposes of remediation, training, and evaluation.

Such fractional approaches are indeed laudable in their attempts to provide greater structure and specificity to the sprawling field of special education practice. They hold, however, some disturbing portents for special education; in their own facile extrapolation of unsettled and controversial experimental and theoretical issues into educational and clinical dicta and practice; in their establishment of techniques of uncertain and, at best, limited validity, as prime diagnostic and treatment instruments; in their seeming disregard of the handicapped child as a unitary, through complex, organism; in their approach to him as a collection of discrete and isolated functions . . .

Special education has its unique history of fractional practices. Indeed, much of what has been termed its clinical approach and what the writers less euphemistically assess as fractional appear as revivals and occasionally as transmogrifications of very old techniques, indeed. The work of such pioneers as Itard, Sequin, and Decroly, whose training approaches emphasized sensory and motor training, appears in many instances to have been directly, if not literally, translated into modern day special

education practice.[1]

Additionally, Mann and Phillips[2] pointed out that to understand the current appeal of fractional approaches to special education indicated a sign of the times discrimination and manipulation of isolated variables. It represented modern behavioral and educational sciences where dissection of behavior through use of multivariate analysis by use of computers was employed. Also, it reflected the labors of the psychometric technician who directed his efforts toward differential evaluation of abilities, the participation of the physician toward differential diagnosis, and the clinical psychologist toward test analysis. Classification in terms of the diagnosis of exceptional children lacked sufficient evidence for educational and remedial practices, therefore, attention was directed to the dysfunction which was viewed as an entity for remediation.

Like other observers of special education, Reynolds (1972) extended the notion that the field is facing some critical problems in this decade.

---

[1]L. Mann and W. A. Phillips, "Fractional Practices in Special Education: A Critique," Exceptional Children, 33 (1967): 311-317.

[2]Ibid.

> We find old patterns of special education services eroding everywhere, especially in the cities, and serious challenges to some procedures being voiced by the courts. As a start in making changes, we need to draw up new cognitive maps to chart our terrain and direction and we need to revise administrative and instructional arrangements to provide new and better services.[1]

Reynolds[2] further pointed out that many recent programs are concerned primarily with the mildly and moderately handicapped children in view of interface between regular and special education, i.e., "mainstreaming." Such emphasis could provoke counter-movements in defense of special education because of the neglect of children who possess more serious handicaps. Many kinds and levels of instruction and services should be rendered to meet the needs of all children. The delivery of special education services cannot be transformed adequately simply by training and inserting new personnel

---

[1] M. C. Reynolds, "Reflections on a Set of Innovations," in E. N. Deno (Ed.), Instructional Alternatives for Exceptional Children. Grant OEG-0-9-336-005 (725) from the National Center for the Improvement of Educational Systems, U.S. Office of Education, Department of Health, Education and Welfare. Arlington, Virginia: The Council for Exceptional Children, 1972, p. 179.

[2] Ibid.

in unchanged schools and systems.[1]

Fundamental changes are required to make the transformation which would involve educational personnel, parents, universities, and state departments of education. Some of the ways in which such persons and institutions are involved are as follows:

1. Changes in special education must be understood and supported by school principals and other administrators.

2. Special educators themselves--at least a sizable proportion of them--must be convinced of the need for change and they must be vigorous and flexible enough to make the changes.

3. State departments of education may be required to change certification standards for teachers and to revise regulations on such matters as program standards and special financial aids.

4. Changes in programs may necessitate the difficult redesigning of training programs in nearby colleges and universities.

5. Individual parents and organized parent groups may be deeply apprehensive of

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[1]Ibid., p. 180.

"decategorization" or of other issues.

6. The pupil personnel workers in the schools and in the community may not be attuned to the changes.

7. Negotiations to change patterns of collaboration may need to be undertaken with school systems' curriculum specialists in various areas.

8. Teacher organizations, in scrutinizing some of the plans, may offer resistance to various parts of them.

These facets of change in the delivery system are only a partial listing of the total number that must be considered. . . . Boundary lines between separate "regular" and "special" systems are less and less discernible than in the past. Thus, it is evident, wherever special education has vitality, conviction, and reasonable quality it can be a major force for the redesigning of all of education--to the end that all children will have truly equal educational opportunities.[1]

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[1]Ibid., pp. 180, 185-186.

Although there were not studies available which directly focused upon the content of The Journal of Special Education, the knowledge base for trends in special education showing topics and categories of concern were well-synthesized and summarized in terms of relevant research and theory. The research summaries gave ample testimony to the theoretical and empirical substance of this field. It is obvious that print materials do not stand by themselves, however, there seemed to be a need for a specific analysis of the kinds of articles, content, and emphases of concern which were published in one of the major journals in the area. Such analysis should indicate whether the changes in the field are compatible with theory, research, and recommended strategies. It could be a useful starting point for building the content of training programs in special education, or at least, represent the current "state of the art" concerning the field.

CHAPTER II

METHOD

The Journal of Special Education

The Journal of Special Education began publication in the autumn of 1966.

> The Journal is a multi-disciplinary offering intended as an avenue for communication and interaction among the various disciplines concerned with the education of the exceptional child and with special problems in general education . . .
>
> The Journal of Special Education is intended to supplement existing publications devoted to special education, school psychology, and orthopsychiatry. It will be directed specifically to problems of education. This focus, except in unusual circumstances, precludes publication of laboratory studies, medical reports, or investigations of test instruments not directly pertinent to educational endeavors. We expect, however, that the implications and contributions will regularly be presented in

the Journal, in proper perspective for its purposes. . . .

We hope that The Journal of Special Education will be more than simply one more publication to add to an already extended list that both scholar and practitioner must view with anxiety if not downright trepidation. We believe that it will be! We hope that interest as well as information will be engendered by its pages and that, increasingly, it will serve as a reaffirmation of the excitement that is so easily felt in the fields with which it is concerned . . .

It publishes articles of research, theory, opinion, and review respecting special education and areas of special concern to general education. It is intended as a forum for all disciplines engaged in these areas. The Journal is most interested in publishing articles that are definitive and carefully documented. It is less interested in case studies and general surveys, although articles of unusual interest will be considered. Extended book reviews of particular significance are welcome to the pages of the Journal.

Publication policies of The Journal of Special

> Education are not intended to be static but will change with the recommendations of its Editorial Board and readers.[1]

Because of its intent, this journal was chosen for analysis.

For purposes of trend analysis and the time span of publication, all issues of the Journal were used. A random selection of various issues seemed inappropriate, since such selection could have resulted in a void with respect to the analysis.

Procedure

Content analysis was chosen to systematically and quantitatively describe the nature of the subject matter published in The Journal of Special Education from its inception, 1966, through 1978. The substance of the content analysis was its categories into which the raw data were tallied.

In establishing the categories three basic rules presented by Selltiz, Wrightsman and Cook (1976) were followed:

1. The set of categories should be derived from a single classificatory principle.

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[1] The Journal of Special Education, Editor, 1966, p. 1.

2. The set of categories should be exhaustive; that is, it should be possible to place every response in one of the categories of the set.

3. The categories within the set should be mutually exclusive; it should not be possible to place a given response in more than one category within the set.[1]

Since this study was concerned with subject matter related to special education and the exceptional child, the classificatory principle was based on explicit references to subject-matter topics in the field. In order to arrive at the classification of topics, texts in special education and/or exceptional children and learning disabilities were carefully examined and an elaborate list of 66 topics was assembled. Because of overlapping of some of the topics, the list was reworked and a set of 46 topics was established. The 46 topics were used as subcategories for coding and, thereafter, combined into 13 separate categories for analysis of the data. The topics and categories are shown in Table 1.

A description of the various categories within

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[1]Claire Selltiz, Lawrence S. Wrightsman, and Stuart W. Cook, Research Methods in Social Relations, 3rd ed. (New York: Holt, Rinehart & Winston, 1976), p. 466.

TABLE 1

List of Topics and Categories for Coding Articles Published in The Journal of Special Education

	Topic	Category
1.	Administration	I. Administration
2.	Assessment and Evaluation	II. Assessment, diagnosis appraisal, and evaluation
3.	Diagnosis	
4.	Identification	
5.	Measurement	
6.	Instruments	
7.	Task Analysis	
8.	Sensory disorders	III. Biological problems
9.	Speech	
10.	Medical	
11.	Brain damage	
12.	Drugs	
13.	Nutrition	
14.	Behavior Modification	IV. Classroom management
15.	Intervention	
16.	Instruction	
17.	Management of behavior	
18.	Materials	
19.	Resource exam	
20.	Resource teacher	
21.	Games	
22.	Methodology	

TABLE 1 (Continued)

	Topic		Category
23.	History	V.	History and philosophy
24.	Biography		
25.	Law	VI.	Legal issues
26.	Learning disabilities	VII.	Learning disabilities
27.	Mainstreaming	VIII.	Mainstreaming
28.	Remediation	IX.	Prescription, remediation and treatment
29.	Programming		
30.	Treatment		
31.	Therapy		
32.	Practicum	X.	Professional preparation
33.	Training program		
34.	Inservice training		
35.	Behavior disorders	XI.	Psychological problems
36.	Delinquency		
37.	Social maladjustment		
38.	Gifted		
39.	Perception		
40.	Language		
41.	Mental retardation		
42.	Self-concept		
43.	Sexual problems		
44.	Sociocultural	XII.	Sociocultural

TABLE 1 (Continued)

	Topic	Category
45.	Theory	XIII. Theory and research
46.	Case study	

the classification system follows:

I. Administration--Provision of direct services to children, agencies that provide services, supervision, funding for training, research, and service at the federal, state and local levels; change agent.

II. Assessment, diagnosis, appraisal and evaluation--Testing, development and use of instruments, identification of problems, diagnosis, measurement, task analysis, and reporting.

III. Biological problems--Physical and sensory disorders: auditory, visual, speech, brain damage, medical--drugs and nutrition.

IV. Classroom management--Behavior modification, intervention, instruction, management of behavior, materials, resource room, resource teacher, games, and methodology.

V. History and philosophy--Biographies and historical events.

VI. Legal issues--Rights of children, human control, law, ethics, privacy, and privileged communication.

VII. Learning disabilities--Special problems of, prescriptions and remediation (Category II deals with identification and diagnosis).

VIII. Mainstreaming--Process and procedures in replacement of child in regular classroom.

IX. Prescription, remediation, and treatment--Programming, remediation, treatment, therapy (not related to learning disabilities, Category VII, but to other special education syndromes).

X. Professional preparation--Practicum, training programs, inservice training, certification.

XI. Psychological problems--All problems with a functional basis: behavior disorders, delinquency, social maladjustment, perception, language, self-concept and sexual. The gifted and mental retardation were considered under this category rather than Category III.

XII. Sociocultural--Issues dealing with race, culture, creed, and economic level.

XIII. Theory and Research--General issues in theory, research and case studies.

CHAPTER III

RESULTS

In order to determine if the set of categories was exhaustive and mutually exclusive, two volumes of the Journal were randomly selected and the articles therein were read and coded by the investigator. They were unambiguously assigned and clearly placed within their respective category.

As a check on the reliability of coding the investigator obtained the cooperation of a diplomate in school psychology, a professor in special education and a graduate student in educational psychology to code the articles appearing in the two randomly selected volumes, Volume 3, 1969, and Volume 7, 1973, by using the predetermined classification system. The frequency of number of responses and rank orders are shown in Table 2. The resultant Kendall's coefficient of agreement,[1] $W = 0.93$, established the reliability of the investigator's placement of articles in their respective

---

[1] M. G. Kendall, Rank Correlation Methods (New York: Hafner Pub. Co., 1962), pp. 97-99.

TABLE 2

Numbers and Rank of Articles Coded

By Investigator and Three Judges

	Categories	Investigator		Judges A		Judges B		Judges C	
		N	R	N	R	N	R	N	R
I.	Administration	0	12	0	12.5	1	11	0	12
II.	Assessment, Diagnosis, Appraisal and Evaluation	11	2	11	2	9	3	9	3.5
III.	Biological Problems	2	8.5	6	5	4	7	4	7
IV.	Classroom Management	13	1	14	1	14	1	11	1
V.	History and Philosophy	9	3	8	3	8	4	8	5
VI.	Legal Issues	2	8.5	2	10	2	9.5	2	10
VII.	Learning Disabilities	0	12	1	11	0	12.5	0	12
VIII.	Mainstreaming	0	12	0	12.5	0	12.5	0	12
IX.	Prescription, Remediation and Treatment	8	4	6	5	6	5	9	3.5
X.	Professional Preparation	3	7	3	9	5	6	7	6
XI.	Psychological Problems	4	6	4	7.5	3	8	3	8.5
XII.	Sociocultural	1	10	4	7.5	2	9.5	3	8.5
XIII.	Theory and Research	5	5	6	5	11	2	10	2

W = 0.93

categories. The original codes by topic are presented in Table 7 of the Appendix. The total number of articles in Volumes 3 and 7 for determining the reliability of placement do not correspond with the number of articles in the original coding of all articles in all volumes since opinions, rebuttals, book reviews and symposia were excluded in the primary study, but included when determining the degree of agreement among judges.

The total number of placements of articles within categories for each volume of The Journal of Special Education are presented in Table 3. The original coding of articles by topics within each category is shown in Table 8 of the Appendix. The chi-square test was used to determine whether there was an association between the classification categories and the various volumes. Because the expected frequencies in the contingency table were universally small and the number or degrees of freedom relatively large, the ordinary chi-square would not be too reliable. To overcome the difficulty of this special condition, the exact mean and variance were used and a critical ratio obtained.[1]

The 13 x 12 contingency table showing the number of articles by classification categories and volume

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[1]A. E. Maxwell, Analyzing Qualitative Data (London: Methuen and Co., Ltd., 1961).

TABLE 3

Number of Articles Within Categories

By Volume

Categories[a]	Volumes												To-tal
	1	2	3	4	5	6	7	8	9	10	11	12	
I	0	1	0	1	0	0	0	0	2	0	0	1	5
II	8	9	9	13	7	6	9	10	6	13	8	12	110
III	1	6	3	0	1	1	0	0	0	0	2	0	14
IV	14	13	6	7	2	3	1	5	0	12	4	7	74
V	4	5	4	4	4	4	4	5	5	5	5	4	53
VI	1	0	0	0	0	0	2	0	0	0	1	0	4
VII	0	2	0	0	0	0	0	1	0	0	1	0	4
VIII	0	0	0	2	0	2	0	0	1	0	0	4	9
IX	11	4	3	2	1	4	7	4	2	3	3	3	47
X	3	1	4	1	1	5	5	3	1	6	5	2	37
XI	1	5	4	3	3	0	1	2	11	4	7	4	45
XII	1	0	1	0	0	0	0	0	0	0	0	0	2
XIII	3	1	3	3	1	1	0	0	0	0	1	1	11
TOTAL	47	47	37	36	20	21	29	30	28	43	37	38	415

[a]Category titles are the same as indicated in Table 2.

Chi-square (132) = 173.59.

Critical ratio = 2.512, p = .006.

number presented in Table 3 yielded a chi-square of 173.59 computed the usual way. The exact mean of chi-square for the data was 132.32 with a variance of 270.09. From these data, a critical ratio (C.R.) was obtained, C.R. = 2.512, p = .006, which was significant. With this level of significance, the outcome indicated association between categories and volumes. This finding suggested that the subject matter of the articles remained relatively constant throughout all volumes of The Journal of Special Education, 1966 through 1978.

Upon examination of Table 4, greatest emphasis centered about Category II, Assessment, diagnosis, appraisal and evaluation of exceptional children, with Category IV, Classroom management, following. The third highest area represented by numbers of articles was Category V, History and philosophy of special education. Category IX, Psychological problems, were nearly equally represented by the percentage of articles published. Very few articles were classified under Category VI, Legal issues, Category VII, Learning disabilities, or Category XII, Sociocultural.

Of interest is Category III, Biological problems, which showed a relatively sharp decline in number of articles published in Volumes 1-3, 1966-1969, during

TABLE 4

Numbers of Articles and Percentages

By Category and Triad

	Triads									
	I		II		III		IV			
	1-3		4-6		7-9		10-12		TOTAL	
Categories[a]	N	%	N	%	N	%	N	%	N	%
I	1	1	1	1	2	2	1	1	5	1
II	26	20	26	32	25	29	33	28	110	27
III	10	8	2	2	0	0	2	2	14	3
IV	33	26	12	15	6	7	23	19	74	18
V	13	10	12	15	14	16	14	12	53	13
VI	1	1	0	0	2	2	1	1	4	1
VII	2	2	0	0	1	1	1	1	4	1
VIII	0	0	4	5	1	1	4	3	9	2
IX	18	14	7	9	13	15	9	8	47	11
X	8	6	7	9	9	10	13	11	37	9
XI	10	8	6	7	14	16	15	13	45	11
XII	2	2	0	0	0	0	0	0	2	0
XIII	4	3	5	6	0	0	2	2	11	3
N	128		82		87		118		415	

[a]Category titles are the same as indicated in Table 2.

the first time period with none appearing in Volumes 7-9, 1973-1975, and two articles listed in Volumes 10-12, 1976-1978. Category VIII, Mainstreaming, was represented by articles published between 1970-1972, which declined between 1973-1975, and increased again between 1976-1978. A somewhat steady increase was shown in Professional preparation, Category X, for working with exceptional children.

According to Budd and Thorpe (1963),

> A trend refers to the increase or decrease of the frequency of given symbols (or content) over a period of time. Normally, trend analysis comes after the basic quantification of the material has been completed. . . . Most generally, data obtained from analysis of trend are graphed, both for the purpose of direction and display.[1]

The number of articles published in The Journal of Special Education as listed by category within each volume triad were converted to percentages and graphed in order to more clearly show trends over the period of time 1966 through 1978. The visual representation is presented in Figure 1. Categories II and IV show the highest percentage of articles published, while Category XII shows the lease. Category IV, Classroom management, shows the

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[1]R. W. Budd and R. K. Thorp, An Introduction to Content Analysis. Iowa City: School of Journalism Publications, 1963.

Category	Volume	Percentage
I	1-3	X (1%)
	4-6	X (1%)
	7-9	XX (2%)
	10-12	X (1%)
II	1-3	XXXXXXXXXXXXXXXXXX (20%)
	4-6	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX (32%)
	7-9	XXXXXXXXXXXXXXXXXXXXXXXXXXX (29%)
	10-12	XXXXXXXXXXXXXXXXXXXXXXXXXX (28%)
III.	1-3	XXXXXXXX (8%)
	4-6	XX (2%)
	7-9	(0%)
	10-12	XX (2%)
IV.	1-3	XXXXXXXXXXXXXXXXXXXXXXXX (26%)
	4-6	XXXXXXXXXXXXXX (15%)
	7-9	XXXXXX (7%)
	10-12	XXXXXXXXXXXXXXXXX (19%)
V.	1-3	XXXXXXXXX (10%)
	4-6	XXXXXXXXXXXXX (15%)
	7-9	XXXXXXXXXXXXXX (16%)
	10-12	XXXXXXXXXXX (12%)
VI.	1-3	X (1%)
	4-6	(0%)
	7-9	XX (2%)
	10-12	X (1%)
VII.	1-3	XX (2%)
	4-6	(0%)
	7-9	X (1%)
	10-12	X (1%)
VIII.	1-3	(0%)
	4-6	XXXX (5%)
	7-9	X (1%)
	10-12	XXX (3%)
IX.	1-3	XXXXXXXXXXXXX (14%)
	4-6	XXXXXXXX (9%)
	7-9	XXXXXXXXXXXXXX (15%)
	10-12	XXXXXXX (8%)
X.	1-3	XXXXX (6%)
	4-6	XXXXXXXX (9%)
	7-9	XXXXXXXXX (10%)
	10-12	XXXXXXXXXX (11%)
XI.	1-3	XXXXXXX (8%)
	4-6	XXXXXX (7%)
	7-9	XXXXXXXXXXXXXX (16%)
	10-12	XXXXXXXXXXX (13%)
XII.	1-3	XX (2%)
	4-6	(0%)
	7-9	(0%)
	10-12	(0%)
XIII.	1-3	XXX (3%)
	4-6	XXXXX (6%)
	7-9	(0%)
	10-12	XX (2%)

Figure 1. Percentages of number of articles published in The Journal of Special Education are shown by category for each volume triad. Each X represents one percent. Category titles are the same as those indicated in Table 2.

greatest fluctuation in percentage of articles published over the time period. Categories V, IX, X, and XI remained relatively stable.

In an attempt to determine geographic representation and affiliation of authors with institutions, a tally was made of institutions by location as indicated for each publication. In some instances the information was not available. The geographic areas used in the tally were those defined by the National Association of School Psychologists (1977-1978) as presented in Table 5. Regardless of geographic area, the majority of articles were published by persons from the academic area followed by those affiliated with clinics and public and private schools, in turn. In view of Table 5, regardless of affiliation, the most frequently represented authors were from the Eastern region followed by authors from the Northcentral region. The least number of represented authors were from the Southeastern region, followed by representatives from the West.

The type of degree held by the authors is presented in Table 6. The majority of articles were published by persons holding academic doctoral degrees (75 percent), with the remaining authors (13 percent) holding various other degrees and 3 percent of the authors holding medical degrees.

TABLE 5

Numbers and Percentages of Authors of Articles by Geographic Regions and Institutional Affiliation

	Academic		Public and Private School		Clinic	
Regions	N	%	N	%	N	%
Eastern	102	65	7	4	47	30
South-eastern	68	85	2	3	10	12
North-Central	74	61	8	7	39	32
West-Central	57	59	11	11	28	29
West	75	83	4	4	11	12
Outside U.S.A.	24	62	1	3	14	35
Unknown	28	38	15	20	31	42
TOTAL	428	65	48	7	180	27

[a]Note: Number of authors will not coincide with number of articles because of multiple authors.

TABLE 6

Number and Percentage of Type of Degrees Held by Authors[a]

Degree	N	%
Doctoral	489	75
M.D.	17	3
Master's	52	8
B.A.	26	4
Others	7	1
Unkonwn	65	10
TOTAL	656	101

[a]Note: Number of authors will not coincide with number of articles because of multiple authors.

CHAPTER IV

SUMMARY, CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

Summary and Conclusions

In this investigation, an attempt was made to trace the changes in subject matter of articles published in The Journal of Special Education from its beginning in 1966 through 1978 using content analysis. It was designed to determine the kind of topics presented in the publication and the quantification of them. The analysis was limited to manifest content only and not directed to the lexical or verbal features. Because The Journal of Special Education is a multidisciplinary organ concerned with the education of the exceptional child, with special problems in education, contains definitive and carefully documented studies, and is not intended to be static, it was chosen for analysis.

With the current trends in special education and concern for change, it was hypothesized that:

1. There is a significant increase in the

number of articles related to contemporary topics relevant to the exceptional child, e.g., specific learning problems, emotional disorders, physical problems, social problems, assessment, curriculum management, and professional training, evident in The Journal of Special Education from 1966 through 1978.

2. Proportionately, over the period from 1966 through 1978, more topics existed with respect to professional preparation, legal issues, curriculum planning and administration of programs.

3. Authors of articles were adequately represented geographically with the majority holding advanced degrees.

In arriving at topics under which the articles could be classified, a search of subject matter within textbooks in special education, exceptional children, and learning disabilities was made. An extensive list of 66 topics was assembled and refined according to the basic rules proposed by Selltiz, Wrightsman, and Cook,[1] which resulted in a total of 46 topics for purposes of coding. For ease and convenience of analysis the 46

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[1]Selltiz, Wrightsman and Cook, Research Methods in Social Relations, p. 466.

topics were condensed into 13 separate categories: I -- Administration, II -- Assessment, diagnosis, appraisal and evaluation, III -- Biological problems, IV -- Classroom management, V -- History and philosophy, VI -- Legal issues, VII -- Learning disabilities, VIII -- Mainstreaming, IX -- Prescription, remediation, and treatment, X -- Professional preparation, XI -- Psychological problems, XII -- Sociocultural, and XIII -- Theory and research.

The reliability of coding was established by having three judges independently code the articles in two randomly selected volumes of The Journal. With the results obtained from the judges and the coding of the investigator, Kendall's coefficient of agreement yielded a $W = 0.93$, which indicated very high agreement.

After all published articles were coded under the 46 topics (opinions, rebuttals, book reviews, and symposia excluded), the total number of placements of articles within the 13 categories was obtained and submitted to a chi-square analysis in order to determine the degree of association, $\chi^2 = 173.59$, $p < .01$. To overcome the difficulty of universally small frequencies and large degrees of freedom, a cirtical ratio was used where the exact mean and variance were employed, C.R. =

2.512, $p = .006$. The high degree of association indicated that the subject matter of the articles remained relatively constant throughout all volumes of The Journal of Special Education, 1966 through 1978. Since the findings indicated no significant changes in number and types of articles published over the designated time period, hypothesis one was rejected and it was concluded that the material published in The Journal did not reflect the contemporary and current changes in the field.

The three highest categories in which greatest concern was evident were: Category II--Assessment, diagnosis, appraisal and evaluation of exceptional children, Category IV--Classroom management, and Category V--History and philosophy, in turn. Very few articles were published under Category VI--Legal issues, Category VII--Learning disabilities, or Category XII--Sociocultural. Category III--Biological problems, showed a rather sharp drop in number of articles published within the first time period, 1966-1969, with only two in the second time period, 1970-1972, where none were published between 1973-1975, and again two were recorded with the fourth time period, 1976-1978. Category VIII--Mainstreaming, reflected no articles published during the first three years, 1966-1969. However, between 1970-1972,

five percent of the articles dealt with the subject, dropping to one percent between 1973-1975 and rising to three percent within the 1976-1978 time period. From these findings, it was concluded that with the exception of professional preparation, hypothesis two would be accepted because a proportionate number of topics regarding legal issues, curriculum planning and administration of programs were not evident.

Hypothesis three regarding equitable representation of authors in terms of geographic location could not be accepted since the highest representation was from the Eastern region of the United States followed by authors from the Northcentral region with the least representation from the Southeastern region. The majority of articles were published by persons holding academic doctoral degrees (75%) with three percent (3%) holding medical doctoral degrees and thirteen percent (13%) holding less than doctoral degrees.

Discussion

Like all areas of education, special education is focused on change and the process of change seems to be politically and socially based rather than research based. Perhaps the field is not yet ready for experimental research since many persons in the field are more

concerned and attuned to the relevant practical needs and constraints of their clientele. If change is in order, it appears that desirable changes should be indicated and the processes and resources for these changes should be delineated. The literature is sketchy in this respect.

In view of the philosophy underlying the publication of articles in The Journal of Special Education, it appears that the intent of publishing definitive and carefully documented articles was accomplished, yet at the same time the intent of not being static seems to be in question. The findings of this investigation show that the materials published were relatively static in terms of content. However, according to the editor, changes can only occur upon recommendation of the Editorial Board.[1] Should this hold, the analysis of journals is, perhaps, not the appropriate technique and approach for analyzing trends or changes within the field. Nevertheless, it renders objective evidence as to what is relevant at the time.

Lilly (1973) pointed out:

> The task of relating educational research to educational change cannot be undertaken for the

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[1] The Journal of Special Education, Editor, 1966, p. 1.

> field of special education alone, but should also include general education. There are two reasons or this position: First, special education as a field is relatively young, and its major effort thus far has been in program development and implementation. While research in special education has not been lacking . . . the field has been so occupied with other issues that research has been neglected. Second, there is little or no difference between general and special education with regard to the relationship between research and practice. Thus, the more inclusive literature of the larger field of general education can and should be brought to bear on the problems of special education.[1]

Reynolds (1972) suggested that a change was evident in the field of special education and emphasis should occur in the area of administration where all children have the right and should receive proper training.[2] Burrello (1973) indicated that, "In the area of

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[1] M. S. Lilly, "The Impact (or Lack of it) of Educational Research on Changes in Educational Practice," in L. Mann and D. A. Sabatino (Eds.), The First Review of Special Education (Philadelphia: JSE Press, 1973), p. 203.

[2] M. C. Reynolds, "Reflections on a Set of Innovations."

special education administration, little research has been reported in the literature."[1] He reported a review of research and theory in special education administration and presented a social-system model in which research methodology has been suggested for the field of special education and its practitioners in regard to the relationship between special education and general education administration.

The analysis of one journal prohibits any decisive conclusions as to the general trend of special education. On the other hand, the findings that have emerged from this investigation seem sufficiently interpretable in terms of trends to suggest that there is nothing which prevents limited generalization.

Implications

In assuming that the results in this investigation are not artifacts of The Journal of Special Education and the methodological procedures, a number of implications follow:

1. Further research into the administrative aspects of special education programs is indicated.

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[1] L. C. Burrello, "Research and Theory in Special Education Administration," in L. Mann and D. A. Sabatino (eds.), The First Review of Special Education (Philadelphia: JSE Press, 1973), p. 229.

2. The implications of the results of this study seem to require further investigation into other periodicals and textbooks in the field of special education and the exceptional child.

3. An attempt to formulate the properties of special education which may contribute to a better understanding of what it is.

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APPENDIX

TABLE 7

Original Coding of Articles by Topic in Volume 3, 1969 and Volume 7, 1973 by the Investigator and Three Judges[a]

Category	Topic	Investigator	Judges A	Judges B	Judges C
I. Admin.	1. Admin.	0(0)	0(0)	1(1)	0(0)
II. Assess., diag., appro.& eval.	2. Assess & Eval.	2	2	1	1
	3. Diagnosis	1	1	1	1
	4. Identif.	0	1	1	0
	5. Measure.	0	1	0	0
	6. Instruments	5	3	4	4
	7. Task Anal.	3(11)	3(11)	2(9)	3(9)
III. Biol. Prob.	8. Sens. Dis.	2	5	3	3
	9. Speech	0	1	0	0
	10. Medical	0	0	0	0
	11. Brain Dam.	0	0	1	1
	12. Drugs	0	0	0	0
	13. Nutrition	0(2)	0(6)	0(4)	0(4)
IV. Class Mgmt.	14. Beh. Mod.	0	0	0	0
	15. Intervent.	3	1	0	0
	16. Instruct.	1	3	6	2
	17. Mgmt. of Beh.	1	0	0	0
	18. Materials	0	2	0	2
	19. Resources	0	0	0	0
	20. Res. Teacher	1	1	1	2

TABLE 7 (Continued)

Category	Topic	Investigator	Judges A	Judges B	Judges C
	21. Games	0	0	0	0
	22. Methods	7(13)	7(14)	7(14)	5(11)
V. Hist. & Philos.	23. History	1	0	0	0
	24. Biography	8(9)	8(8)	8(8)	8(8)
VI. Legal Issues	25. Law	2(2)	2(2)	2(2)	2(2)
VII. Lng. D.	26. Learn'g Dis.	0(0)	1(1)	0(0)	0(0)
VIII. Mainst.	27. Mainst'g.	0(0)	0(0)	0(0)	0(0)
IX. Prescpt. Remed., & Trmt.	28. Remediation	2	0	0	0
	29. Programming	5	5	6	7
	30. Treatment	1	1	0	2
	31. Therapy	0(8)	0(6)	0(6)	0(9)
X. Prof. Prep.	32. Practicum	0	0	0	0
	33. Trng. Prog.	3	3	5	6
	34. Inser. Trng.	0(3)	0(3)	0(5)	1(7)
XI. Psych. Prob.	35. Beh. Dis.	0	0	0	0
	36. Delinq.	0	0	1	1
	37. Soc. Maladj.	1	2	2	1
	38. Gifted	2	1	0	1
	39. Perception	0	1	0	0
	40. Language	1	0	0	0
	41. Ment. Ret.	0	0	0	0

TABLE 7 (Continued)

Category	Topic	Investigator	Judges A	Judges B	Judges C
	42. Self-Concept	0	0	0	0
	43. Sexual	0(4)	0(4)	0(3)	0(3)
XII. Sociocult.	44. Sociocult.	1(1)	4(4)	2(2)	3(3)
XIII. Theory & research	45. Theory	3	6	10	9
	46. Case Study	2(5)	0(6)	1(11)	1(10)

[a]Numbers in parentheses indicate the number of articles within each category.

TABLE 8

Original Coding of Articles by Topic Within Categories by Volume[a]

Category	Topic	Volume 1 1966	Volume 2 1967-68	Volume 3 1969
I. Admin.	1. Admin.	0(0)	1(1)	0(0)
II. Assess., Diag., Appr., & Eval.	2. Assess & Eval.	4	6	4
	3. Diagnosis	2	2	0
	4. Identif.	0	0	1
	5. Measure	0	0	2
	6. Instruments	2	0	0
	7. Task Anal.	0(8)	1(9)	2(9)
III. Biol. Prob.	8. Sens. Dis.	0	3	0
	9. Speech	0	0	3
	10. Medical	0	2	0
	11. Brain Dam.	0	0	0
	12. Drugs	1	0	0
	13. Nutrition	0(1)	1(6)	0(3)
IV. Class Mgmt.	14. Beh. Mod.	1	4	0
	15. Intervent.	0	1	0
	16. Instruct.	1	2	0
	17. Mgmt. of Beh.	2	1	0
	18. Materials	0	1	0
	19. Resources	0	0	0
	20. Resource Tchr.	2	0	1

TABLE 8 (Continued)

Category	Topic	Volume 1 1966	Volume 2 1967-68	Volume 3 1969
	21. Games	1	0	1
	22. Methods	7(14)	4(13)	4(6)
V. History & Philosophy	23. History	0	1	0
	24. Biography	4(4)	4(5)	4(4)
VI. Legal Iss.	25. Law	1(1)	0(0)	0(0)
VII. Lng. Dis.	26. Learn. Dis.	0(0)	2(2)	0(0)
VIII. Mainstrmg.	27. Mainstrmg.	0(0)	0(0)	0(0)
IX. Prescrpt., Remed., & Trmt.	28. Remediation	3	1	0
	29. Programming	6	2	3
	30. Treatment	2	0	0
	31. Therapy	0(11)	1(4)	0(3)
X. Prof. prep.	32. Practicum	1	0	0
	33. Trng. Prog.	2	1	4
	34. Inser. Trng.	0(3)	0(1)	0(4)
XI. Psych. prob.	35. Beh. Dis.	0	0	1
	36. Delinq.	0	1	0
	37. Soc. Maladj.	0	0	1
	38. Gifted	0	2	1
	39. Perception	0	0	0
	40. Language	1	1	1
	41. Ment. Ret.	0	0	0
	42. Self-Concept	0	1	0
	43. Sexual	0(1)	0(5)	0(4)

TABLE 8 (Continued)

Category	Topic	Volume 1 1966	Volume 2 1967-68	Volume 3 1969
XII. Sociocult.	44. Sociocult.	1(1)	0(0)	1(1)
XIII. Theory & Research	45. Theory	3	1	0
	46. Case Study	0(3)	0(1)	0(0)
TOTAL		(47)	(47)	(34)

TABLE 8 (Continued)

Category	Topic	Volume 4 1970	5 1971	6 1972
I. Admin.	1. Admin.	1(1)	0(0)	0(0)
II. Assess., Diag., Appr. & Eval.	2. Asses & Eval.	8	2	3
	3. Diagnosis	0	2	1
	4. Identif.	1	0	0
	5. Measure	1	1	2
	6. Instruments	0	0	0
	7. Task Anal.	3(13)	2(7)	0(6)
III. Biol. Prob.	8. Sens. Dis.	0	1	0
	9. Speech	0	0	0
	10. Medical	0	0	0
	11. Brain Dam.	0	0	1
	12. Drugs	0	0	0
	13. Nutrition	0(0)	0(1)	0(1)
IV. Class Mgmt.	14. Beh. Mod.	0	0	0
	15. Intervent.	0	0	2
	16. Instruct.	0	1	0
	17. Mgmt. of Beh.	0	0	0
	18. Materials	1	0	0
	19. Resources	0	1	1
	20. Resour. Tchr.	0	0	0
	21. Games	0	0	0
	22. Methods	6(7)	0(2)	0(3)

TABLE 8 (Continued)

Category	Topic	Volume 4 1970	5 1971	6 1972
V. History & Philosophy	23. History	0	0	0
	24. Biography	4(4)	4(4)	4(4)
VI. Legal Iss.	25. Law	0(0)	0(0)	0(0)
VII. Lng. Dis.	26. Learn. Dis	0(0)	0(0)	0(0)
VIII. Mainstrmg.	27. Mainstrmg.	2(2)	0(0)	2(2)
IX. Prescrpt., Remed., & Trmt.	28. Remediation	0	0	0
	29. Programming	2	1	3
	30. Treatment	0	0	1
	31. Therapy	0(2)	0(1)	0(4)
X. Prof. prep.	32. Practicum	0	0	1
	33. Trng. Prog.	0	1	1
	34. Inser. Trng.	1(1)	0(1)	3(5)
XI. Psych. prob.	35. Beh. Dis.	0	0	0
	36. Delinq.	0	0	0
	37. Soc. Maladj.	0	0	0
	38. Gifted	1	0	0
	39. Perception	0	1	0
	40. Language	2	2	0
	41. Ment. Ret.	0	0	0
	42. Self-Concept	0	0	0
	43. Sexual	0(3)	0(3)	0(0)

TABLE 8 (Continued)

Category	Topic	Volume 4 1970	Volume 5 1971	Volume 6 1972
XII. Sociocult.	44. Sociocult.	0(0)	0(0)	0(0)
XIII. Theory & Research	45. Theory	1	1	1
	46. Case Study	2(3)	0(1)	0(1)
TOTAL		(36)	(20)	(26)

TABLE 8 (Continued)

Category	Topic	Volume 7 1973	8 1974	9 1975
1. Admin.	1. Admin.	0(0)	0(0)	2(2)
II. Assess,	2. Assess & Eval.	5	7	4
	3. Diagnosis	0	2	0
	4. Identif.	1	0	0
	5. Measure.	0	0	0
	6. Instruments	1	1	0
	7. Task Anal.	2(9)	0(10)	2(6)
III. Biol. Prob.	8. Sens. Dis.	0	0	0
	9. Speech	0	0	0
	10. Medical	0	0	0
	11. Brain Dam.	0	0	0
	12. Drugs	0	0	0
	13. Nutrition	0(0)	0(0)	0(0)
IV. Class Mgmt.	14. Beh. Mod.	0	0	0
	15. Intervent.	0	3	0
	16. Instruct.	0	0	0
	17. Mgmt. of Beh.	0	0	0
	18. Materials	1	0	0
	19. Resources	0	1	0
	20. Resour. Tchr.	0	0	0
	21. Games	0	0	0
	22. Methods	0(1)	1(5)	0(0)

TABLE 8 (Continued)

Category	Topic	Volume 7 1973	Volume 8 1974	Volume 9 1975
V. History & Philosophy	23. History	0	0	1
	24. Biography	4(4)	5(5)	4(5)
VI. Legal Iss.	25. Law	2(2)	0(0)	0(0)
VII. Lng. Dis.	26. Learn Dis.	0(0)	1(1)	0(0)
VIII. Mainstrmg.	27. Mainstrmg.	0(0)	0(0)	1(1)
IX. Prescrpt., Remed., & Trmt.	28. Remediation	0	2	0
	29. Programming	4	2	1
	30. Treatment	3	0	0
	31. Therapy	0(7)	0(4)	1(2)
X. Prof. prep.	32. Practicum	0	0	0
	33. Trng. Prog.	4	3	1
	34. Inser. Trng.	1(5)	0(3)	0(1)
XI. Psych. prob.	35. Beh. Dis.	0	1	1
	36. Delinq.	0	0	0
	37. Soc. Maladj.	0	0	0
	38. Gifted	0	0	6
	39. Perception	0	0	2
	40. Language	0	0	1
	41. Ment. Ret.	0	0	1
	42. Self-Concept	1	0	0
	43. Sexual	0(1)	1(2)	0(11)

TABLE 8 (Continued)

Category	Topic	Volume 7 1973	8 1974	9 1975
XII. Sociocult.	44. Sociocult.	0(0)	0(0)	0(0)
XIII. Theory & Research	45. Theory	0	0	0
	46. Case Study	0(0)	0(0)	0(0)
TOTAL		(29)	(30)	(28)

TABLE 8 (Continued)

Category	Topic	Volume 10 1976	11 1977	12 1978
I. Admin.	1. Admin.	0(0)	0(0)	1(1)
II. Assess, Diag, Appr, & Eval.	2. Assess & Eval.	5	5	7
	3. Diagnosis	0	3	0
	4. Identif.	1	0	0
	5. Measure.	3	0	0
	6. Instruments	1	0	0
	7. Task Anal.	3(13)	0(8)	5(12)
III. Biol. prob.	8. Sens. Dis.	0	0	0
	9. Speech	0	1	0
	10. Medical	0	0	0
	11. Brain Dam.	0	0	0
	12. Drugs	0	1	0
	13. Nutrition	0(0)	0(2)	0(0)
IV. Class mgmt.	14. Beh. Mod.	1	2	1
	15. Intervent.	0	0	2
	16. Instruct.	0	1	1
	17. Mgmt. of Beh.	0	0	0
	18. Materials	0	1	0
	19. Resources	3	0	0
	20. Resour. Tchr.	3	0	0
	21. Games	0	0	0
	22. Methods	5(12)	0(4)	3(7)

TABLE 8 (Continued)

Category	Topic	Volume 10 1976	11 1977	12 1978
V. History & Philosophy	23. History	1	1	0
	24. Biography	4(5)	4(5)	4(4)
VI. Legal Iss.	25. Law	0(0)	1(1)	0(0)
VII. Lng. Dis.	26. Learn. Dis.	0(0)	1(1)	0(0)
VIII. Mainstrmg.	27. Mainstrmg.	0(0)	0(0)	4(4)
IX. Prescrpt., Remed., & Trmt.	28. Remediation	0	0	0
	29. Programming	2	3	2
	30. Treatment	0	0	1
	31. Therapy	1(3)	0(3)	0(3)
X. Prof. prep.	32. Practicum	0	0	0
	33. Trng. Prog.	5	5	2
	34. Inser. Trng.	1(6)	0(5)	0(2)
XI. Psych. prob.	35. Beh. Dis.	1	3	0
	36. Delinq.	0	1	0
	37. Soc. Maladj.	0	1	0
	38. Gifted	0	0	0
	39. Perception	2	0	0
	40. Language	1	1	3
	41. Ment. Ret.	0	1	1
	42. Self-Concept	0	0	0
	43. Sexual	0(4)	0(7)	0(4)

TABLE 8 (Continued)

Category	Topic	Volume 10 1976	11 1977	12 1978
XII. Sociocult.	44. Sociocult.	0(0)	0(0)	0(0)
XIII. Theory & Research	45. Theory	0	1	1
	46. Case Study	0(0)	0(1)	0(1)
	TOTAL	(43)	(37)	(38)

[a]Numbers in parentheses indicate the number of articles within each category.