

AN INVESTIGATION OF THE CHARACTERISTICS OF  
CURRENT PROFESSIONAL JOURNALS IN EDUCATION

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*Maryellen M. Sweeney*  
Major professor

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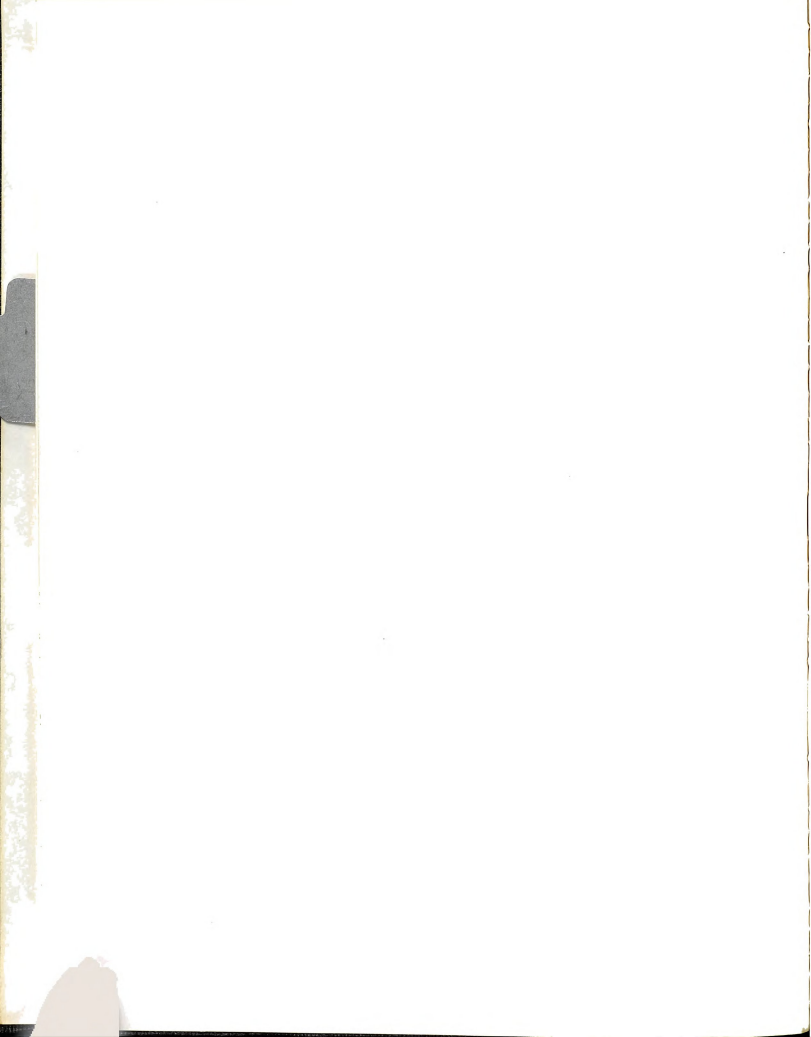
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ABSTRACT

AN INVESTIGATION OF THE CHARACTERISTICS OF  
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By

Paula R. Knepper

This study investigated the relationship between certain groups of characteristics of current professional journals in education in an effort to determine the extent to which these journals are fulfilling the role of information disseminator to all levels of professionals in education.

Data was acquired from the editors of randomly selected journals concerning intended readership and certain publication policies. Data was also collected directly from an investigation of the journal articles themselves concerning type of article, topic, and in the case of articles reporting research, the research methodology reported and adequacy of the report.

Two primary variables were investigated: intended readership and adequacy of research reports. These were related to publication policies, journal characteristics, topic, data collection procedures, and statistics reported. The primary method of analysis utilized was canonical





correlations as interest was in the relationship between two sets of variables. This technique is robust to violations of the assumptions of normality and hence useful in analyzing variables which are not normally distributed. A limitation is that when the number of variables entered in a set is large compared to the number of subjects, an inflated amount of variance accounted for by the canonical variates may occur.

The results of this study indicate that the professional journals in education are not fulfilling their entrusted role as research disseminator equally to all levels of readers.

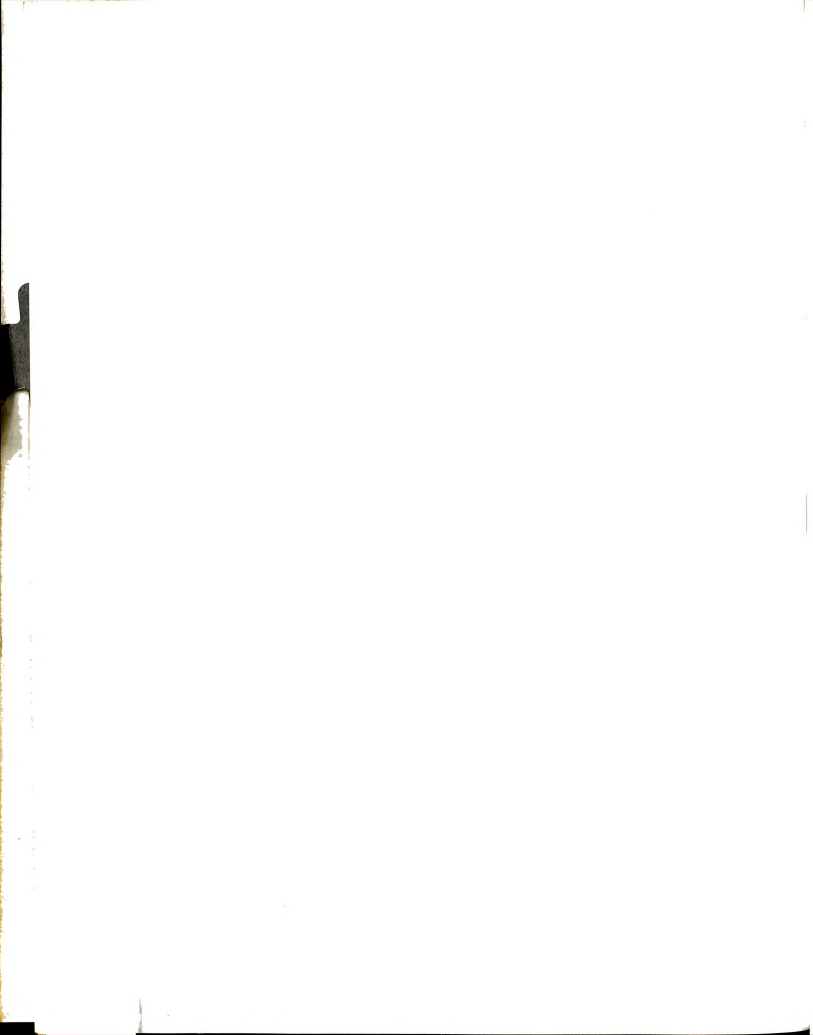
Teachers at the elementary and secondary levels, though the largest group of readers, are of least interest to the journals. College teachers are the most important group of readers with researchers as readers of not much more importance than public school teachers. The journals most interested in teachers at the lower level are those which have been in existence longest. These journals publish very few research articles. The journals primarily interested in researchers are newer and are published less frequently but contain more adequately written research reports. Those journals intended primarily for the college teacher have many research articles but they tend to be of lower quality.



Paula R. Knepper

As a result, it was suggested that effort should be put forth on the parts of both readers and journal staff to have the quality as well as quantity of reports of research raised for all levels of readers of the professional journals.





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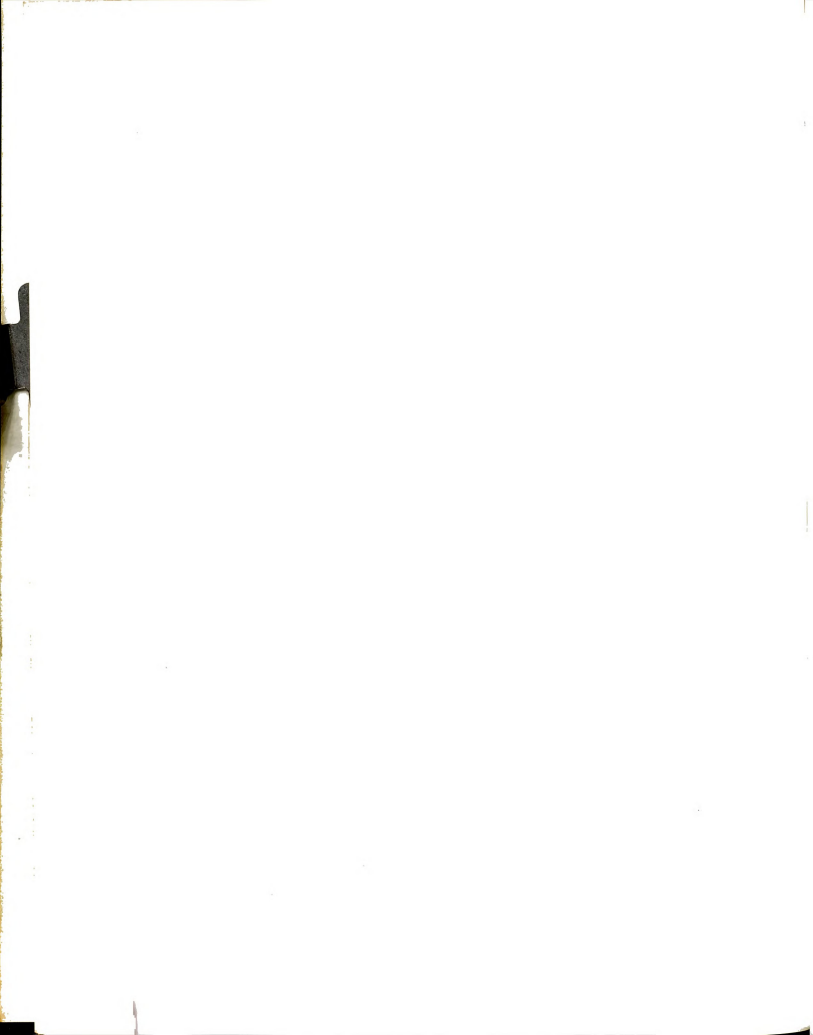
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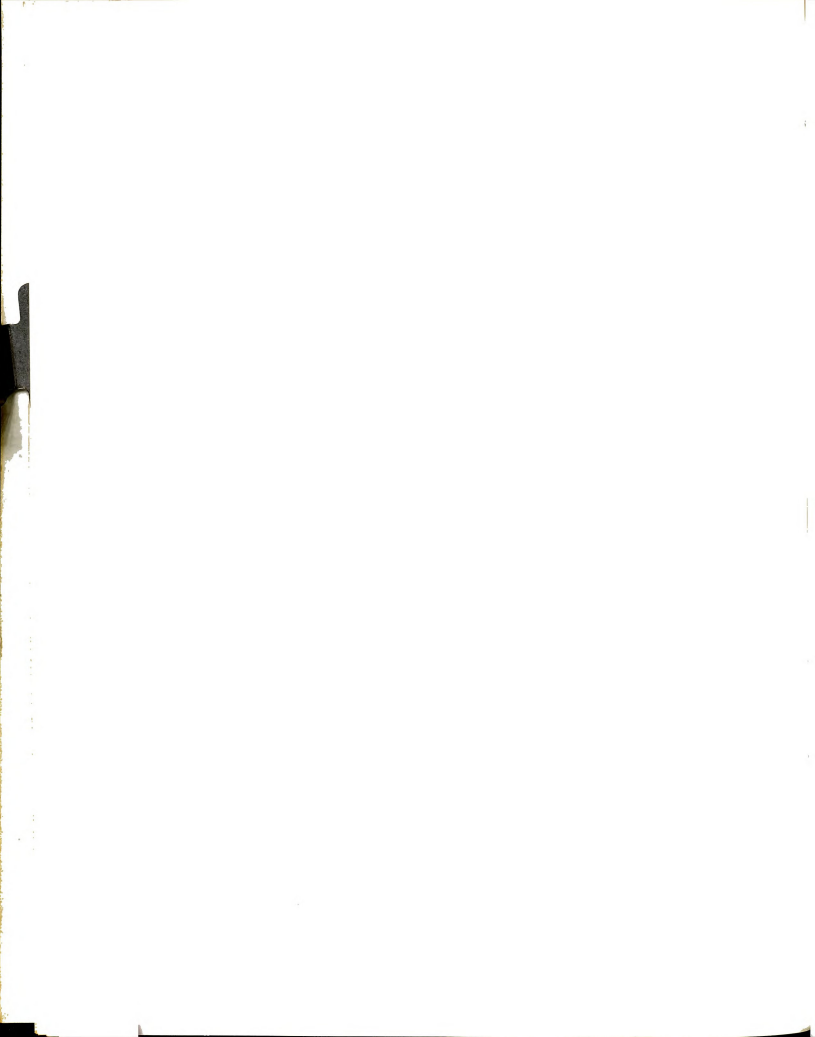
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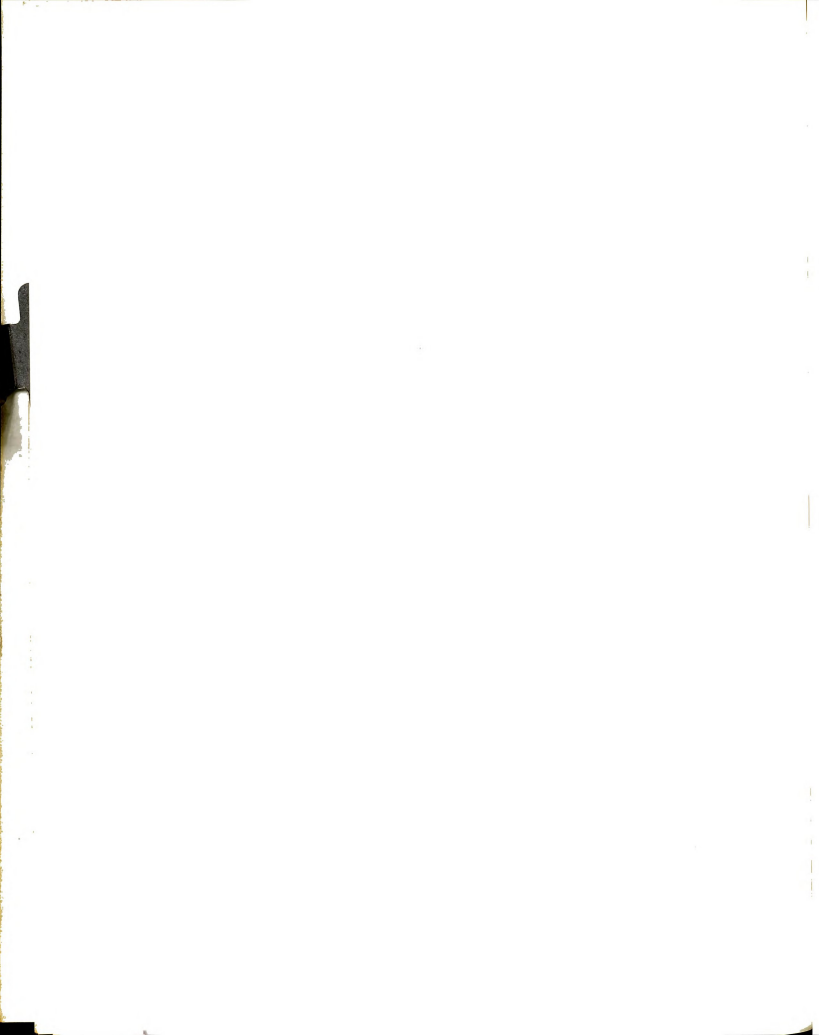
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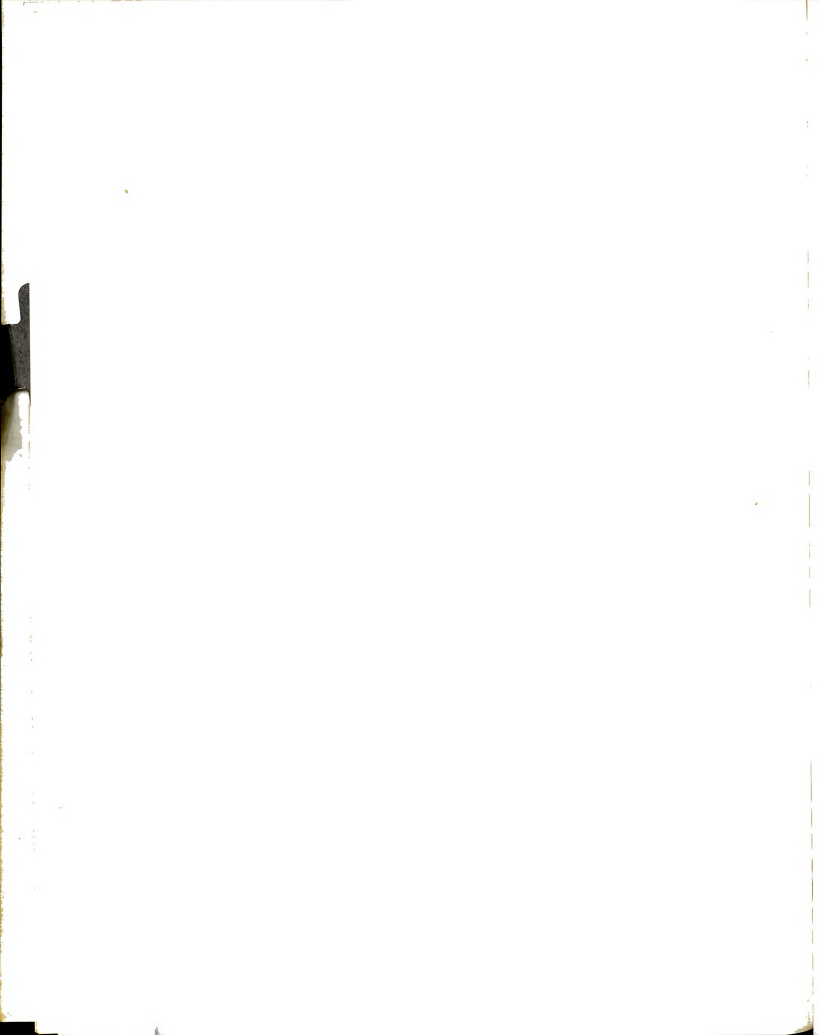
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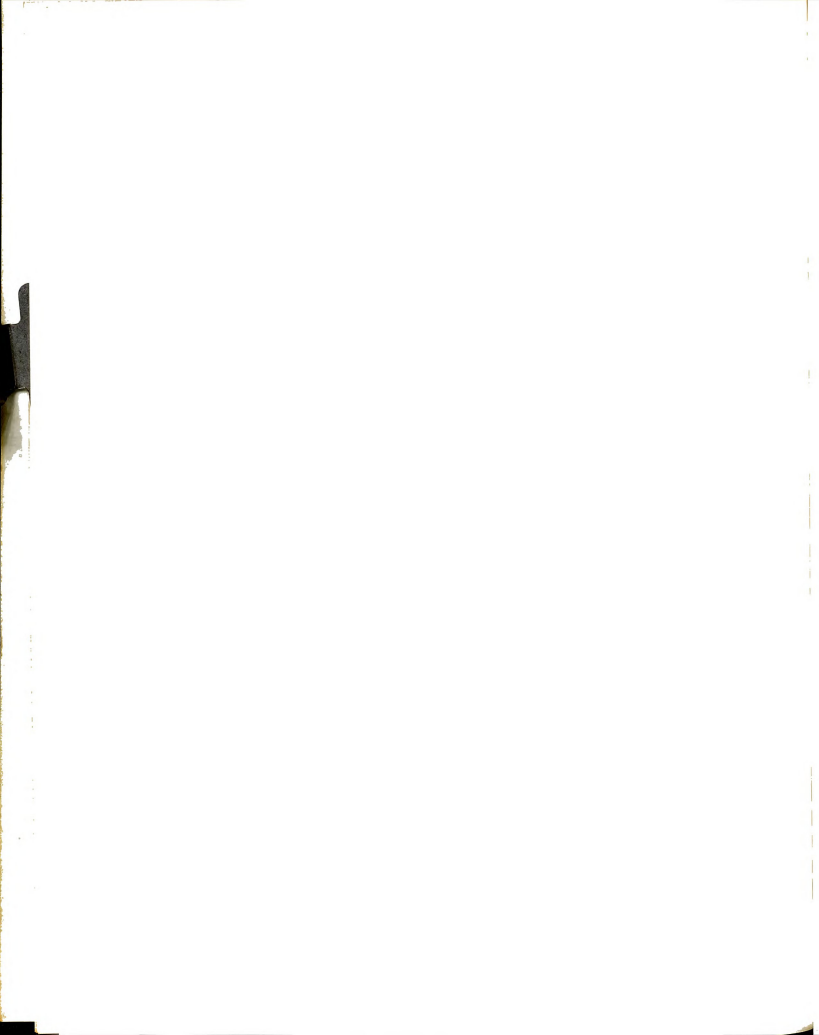


## CHAPTER I

### BACKGROUND AND STATEMENT OF THE PROBLEM

During recent years, the growing concern on the part of educators, legislators, and others, concerning the status of American education, has undoubtedly been an important contributor to the increased number of educational research studies conducted and the increased funding available for such studies. It was anticipated by the federal government, researchers, and all others having a hand in the education of children that by directing research efforts toward experimentation in the identification of improved educational methodologies, solutions to the problems facing educators would be discovered.

However, for the most part, those teachers and administrators who have been involved directly in the process of educating children have claimed that research has not provided solutions to their practical, everyday problems. Instead, they have insisted that research deals with theoretical issues rather than practical problems and therefore, provides little information that is directly applicable. Researchers, on the other hand, have reported that more theoretical research is needed before a foundation can be established from which to develop solutions to

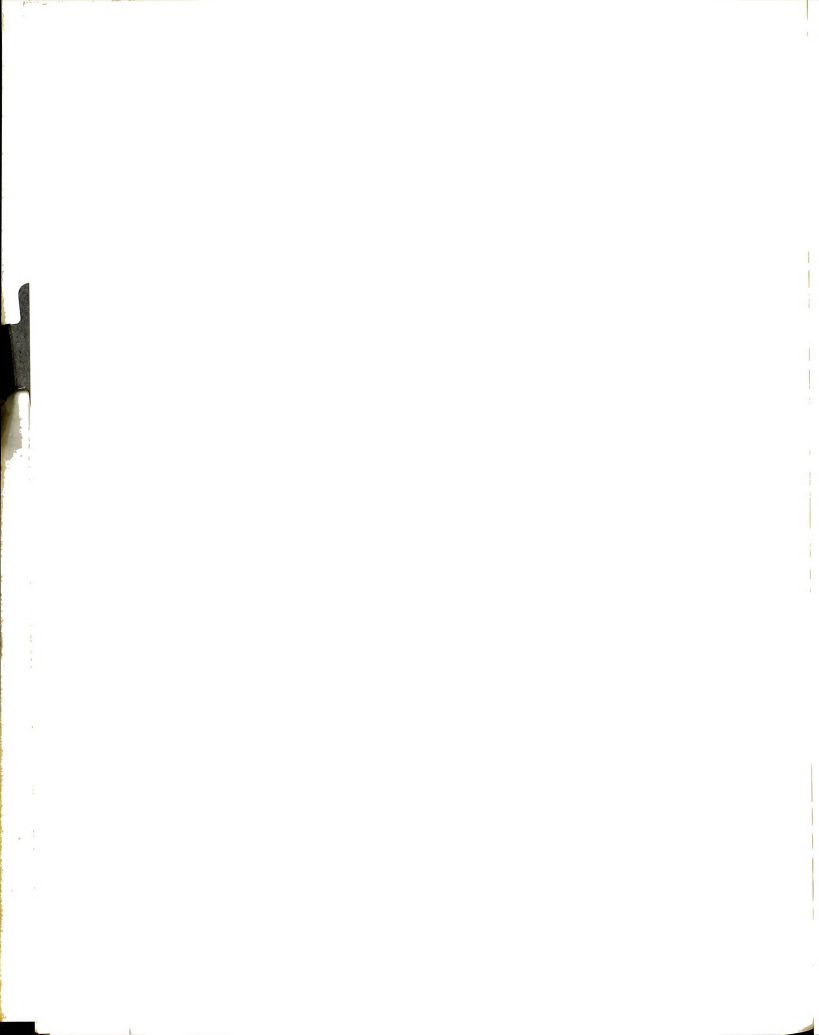


the problems facing other types of educators, and that in many cases the results of their research are applicable.

One question that should be raised in regard to these allegations concerns the availability of appropriate research reports to the interested groups of individuals. Unless the research materials which reach various groups are relevant to their particular needs, the group's conclusion will be that their needs are not being met by the available materials. If their needs are not being met by the available materials, they are, for practical purposes, not being met at all.

One limitation associated with the availability of relevant research material is the fact that although researchers tend to circulate information privately among their close associates, they must depend basically upon contemporary publications as a mode of communication to both the practically minded educator and to other theoretically minded, but not closely associated, counterparts. For this reason, professional journals are placed in the precarious position of attempting to satisfy a continuum of diversified needs.

Individuals for whom the prime interest rests with theoretical issues frequently depend upon informal communication channels to acquire the latest information on relevant issues. These informal channels tend to link those persons having similar interests and often represent many institutions. Persons not closely associated with a wide



of other educators having similar interests must rely on the numerous professional journals, not only for research reports, but also for other relevant information. This latter category frequently fall public school personnel. Therefore, it is important to determine for the professional journals in education are primarily intended, what types of articles are being published and for whom, what characteristics of journals and articles are related to what types of reader, and, ultimately, whether professional journals in education are fulfilling their intended roles.

#### Background of the Problem

One of the most important factors influencing the teachers' attitudes toward the information gained through professional educational journals is the type of position they occupy within the profession. The strongest of these distinctions differentiates teachers from researchers. Although many individuals hold positions which involve some of these aspects, one position is usually found to be dominant and is, therefore, assigned the higher priority.<sup>1</sup>

From the point of view of the researcher, there is an immediate need for access to the most recent discoveries and information. A researcher achieves fame by being the

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<sup>1</sup>Robert K. Merton and Richard Lewis, "The Competitive Pressures (1): The Race for Priority," Impact of Science on Society, XXI, 2 (1971), 151-161.





t to present a new idea prior to its discovery by one else. Therefore, he must keep abreast of new information.<sup>2</sup>

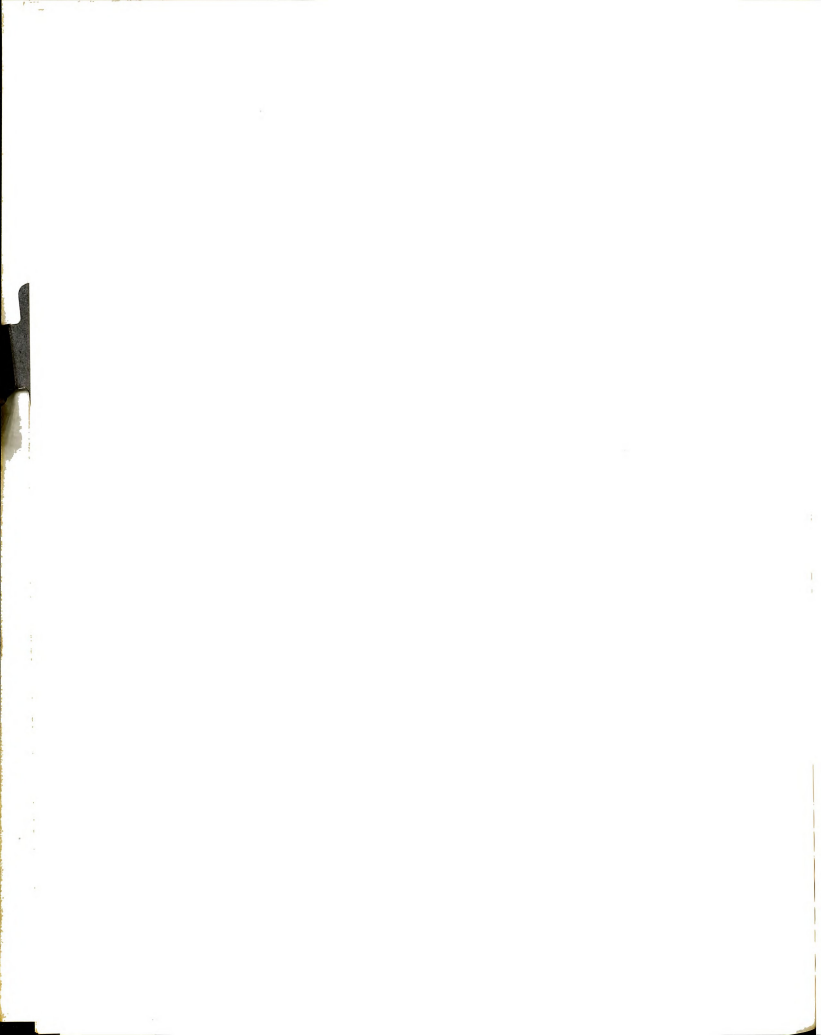
On the other hand, the teacher is more dependent tested ideas than upon the latest new information. If a concept has been tried under real-life conditions, it is usually considered by teachers to be theoretical doubtful application.<sup>3</sup>

The nature of the professional journals should make them particularly well suited to the needs of the teacher. They can present new information frequently, thereby keeping him well informed. Books and other less frequent publications seem to be better able to meet the needs of teachers, who have no urgent need for information on new theories that are being tested for the first time. Information is more valuable to the teacher after it has been tested several times in varying situations. However, it seems on the surface that the majority of professional journals are aimed primarily toward teachers rather than researchers.

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<sup>2</sup>Robert K. Merton, "Priorities in Scientific Discovery: A Chapter in the Sociology of Science," American Sociological Review, XXII, 6 (1957), 655-659.

<sup>3</sup>Maurico B. Line, Michael J. Brittain, and A. Carnmer, "Information Requirements of College of Education Lecturers and School Teachers," ERIC No. ED 049 (February 1971).



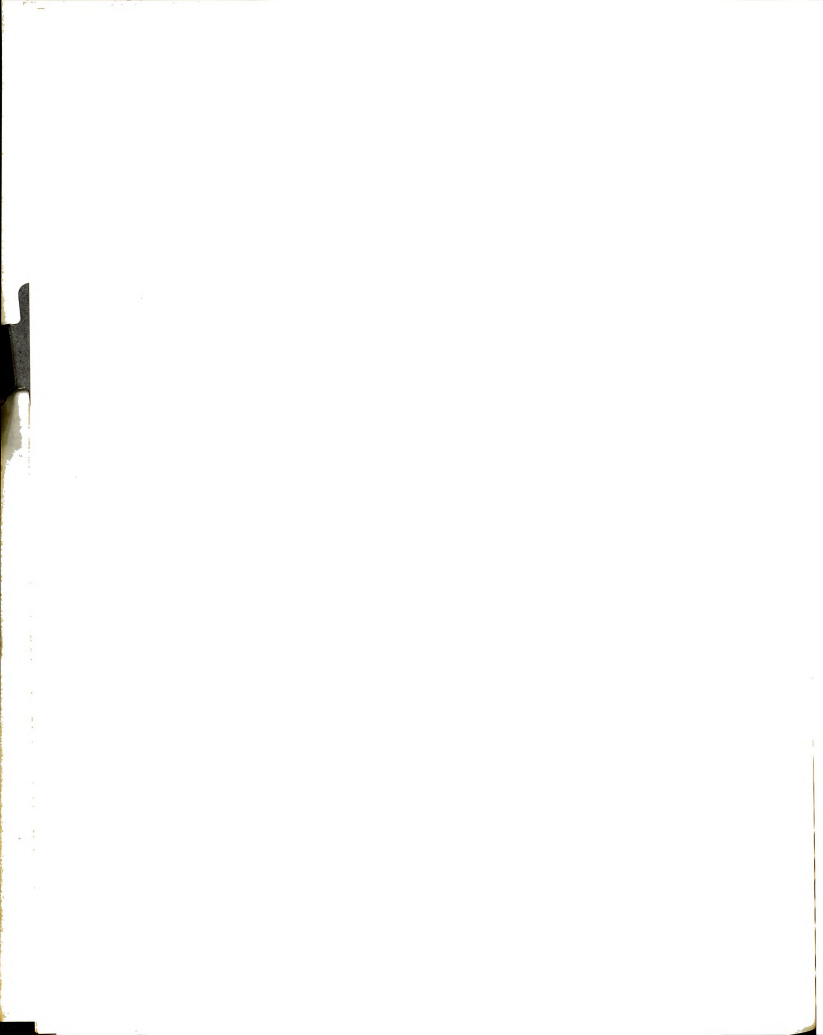
Nevertheless, the professional journal remains the most widely utilized tool for information dissemination by both teachers and researchers. As a result, editors and publishers of journals devote a great deal of time and energy to problems associated with upgrading quality, publication lag, and content organization. Brown, Pierce, and Traub proposed solutions to many of these problems.<sup>4</sup>

Questions regarding the specific informational needs of the different classifications of educators have to date been adequately answered. Therefore, until contradictory evidence is available, the assumption is made that educators are similar to other social scientists and technicians in their use of professional journals and their informational requirements.

A series of studies for the American Psychological Association conducted under the direction of William D. Harvey and Belver C. Griffith indicated that the area of specialization and educational level of the readership differentiated the regular readers of different journals. One of these studies, a survey of the readership, dealt with article content. When readers were asked what kinds of articles were most frequently read, those concerning theory and the review of other materials were reported most frequently. In addition, 26 percent of the respondents

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<sup>4</sup>W. S. Brown, V. R. Pierce, and J. F. Traub, "The Nature of Scientific Journals," Science, CLVIII (December 1, 1957), 1153-1159.



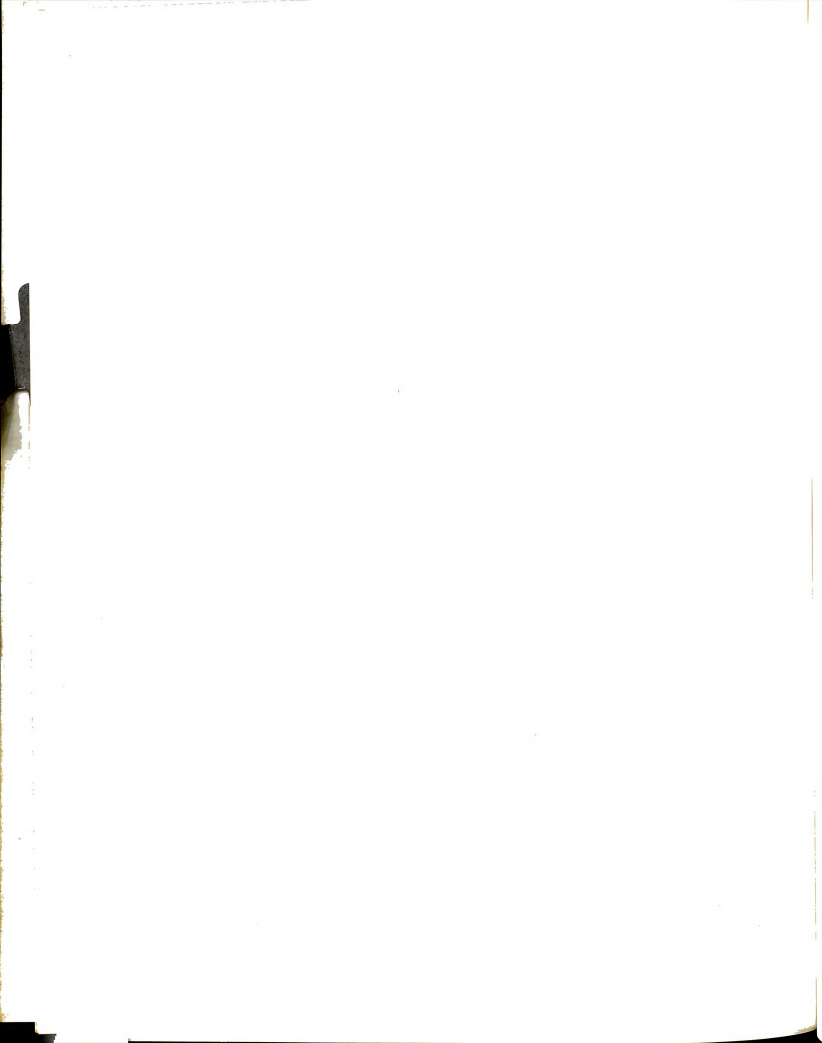
ported that the most useful parts of published articles are the theory, method, and resultant data. However, the majority of readers reported that the most often used portion was the conclusion.<sup>5</sup>

In a study of psychology faculty and graduate students, it was found that professional journals were more useful to the faculty, as 80 percent chose journals as the source of most useful ideas, while books were more useful to graduate students. The faculty also favored professional meetings more often than did the graduate students, who relied primarily upon textbooks and interpersonal channels for information. It can then be assumed that an inverse relationship exists between the usefulness of journal articles and the existence of an available interpersonal network.<sup>6</sup> Menzel, in a study designed to evaluate the information attainment methods of scientists, found that researchers use articles 25 percent of the time, books 15 percent, and colleagues 15 percent for deliberate searches. For brushing up on a topic, articles were used 40 percent of the time and ex-colleagues 10 percent. In

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<sup>5</sup> American Psychological Association, Reports of the American Psychological Association's Project on Scientific Information Exchange in Psychology, Volume 1 (Washington, D.C.: The Association, 1963).

<sup>6</sup> Johns Hopkins University, SoGSIP Study Group, Preliminary Results from a Survey of Graduate Students in Psychology (Washington, D.C.: American Psychological Association, Office of Communications, 1971).



addition, accidental acquisition of useful information from articles occurred 45 percent of the time.<sup>7</sup>

Mosely, in a study of teachers enrolled in a summer education course, found that 84 percent of those studied kept abreast of current developments in education by reading professional journals. Eighteen percent of the respondents claimed that the changes they made in their teaching practices had been suggested solely by this source of literature. Research should be primarily disseminated through journals and research quarterlies according to 8 percent of the teachers, while 42 percent reported that research articles are generally in understandable form. Another 38 percent stated that published research is in a form that is applicable to the classroom.<sup>8</sup>

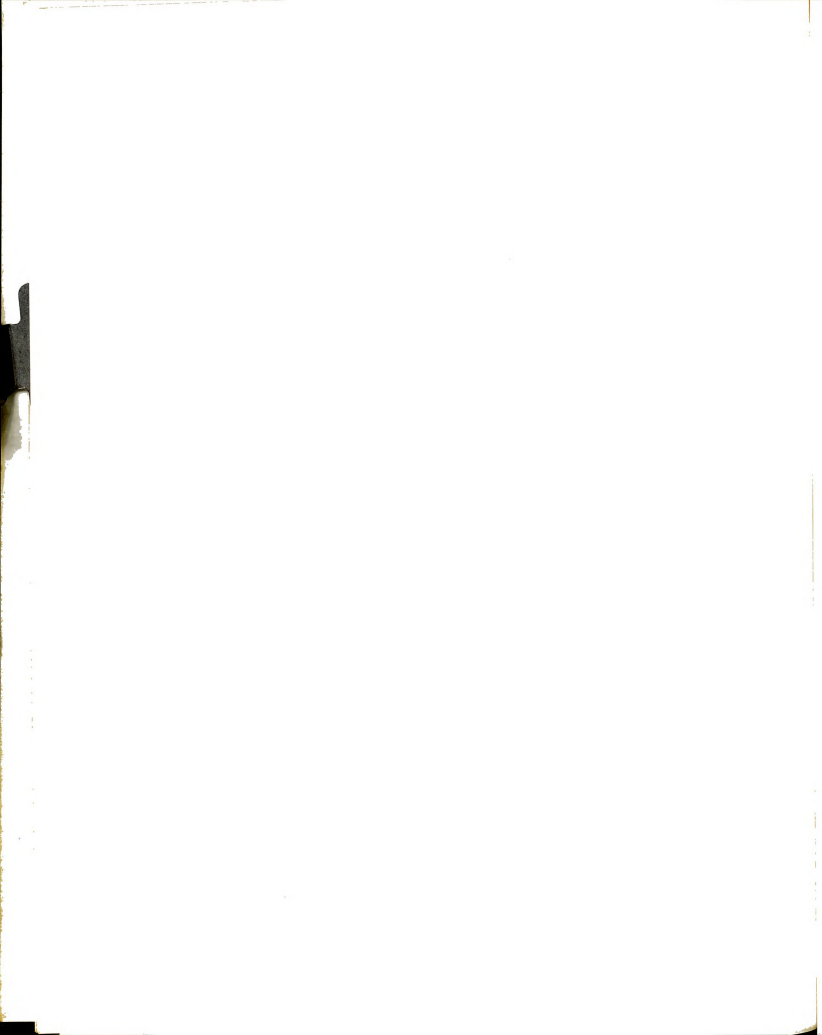
However, Singer disagreed, pointing out that while several significant published research findings are not utilized, other studies showing insufficient evidence have been applied regardless of their obvious shortcomings. These errors occurred because of the ideological resistance to findings contrary to "conventional wisdom," acceptance of only those findings that were in agreement with the

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<sup>7</sup> Herbert Menzel, Formal and Informal Satisfaction Requirements of Chemists (New York: Columbia University, Bureau of Applied Social Research, and New York University, Department of Sociology, June, 1970).

<sup>8</sup> Aubrey Howard Mosely, "A Study of Teacher Perception of Factors Related to Educational Research" (unpublished M.D. dissertation, University of Alabama, 1966), pp. 110-115.





urrent bias, susceptibility of decision makers to propaganda, and variance in the adequacy of dissemination.<sup>9</sup>

In an attempt to better serve the differences in readership needs there has been a widespread trend toward the division of broad coverage journals into several specialized journals. However, this can result in the proliferation of new journals which are even more fragmented and unconnected than before.<sup>10</sup>

Thus, it appears that professional journals are depended upon for information by a variety of readers with a variety of needs. The availability of information suitable to meet those needs varies with the type of position held and interest of the readers.

Both researchers and those groups of educators who deal directly with students claim that their needs are not being met. Researchers, rather than placing reliance upon professional journals to provide the latest up-to-date information regarding their particular area of interest, instead seek out both colleagues and ex-colleagues who can surprise their own particular "invisible college." On the other hand, teachers do not agree regarding the degree to

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<sup>9</sup>Harry Singer, "Research That Should Have Made a Difference," Elementary English, XLVII (January 1970), 34.

<sup>10</sup>K. K. Gannett, "Technical Journals and the Information Explosion," International Technical Communications Conference, 14th, Chicago, May 1967, Proceedings (Washington, D.C., 1967), Paper 8.



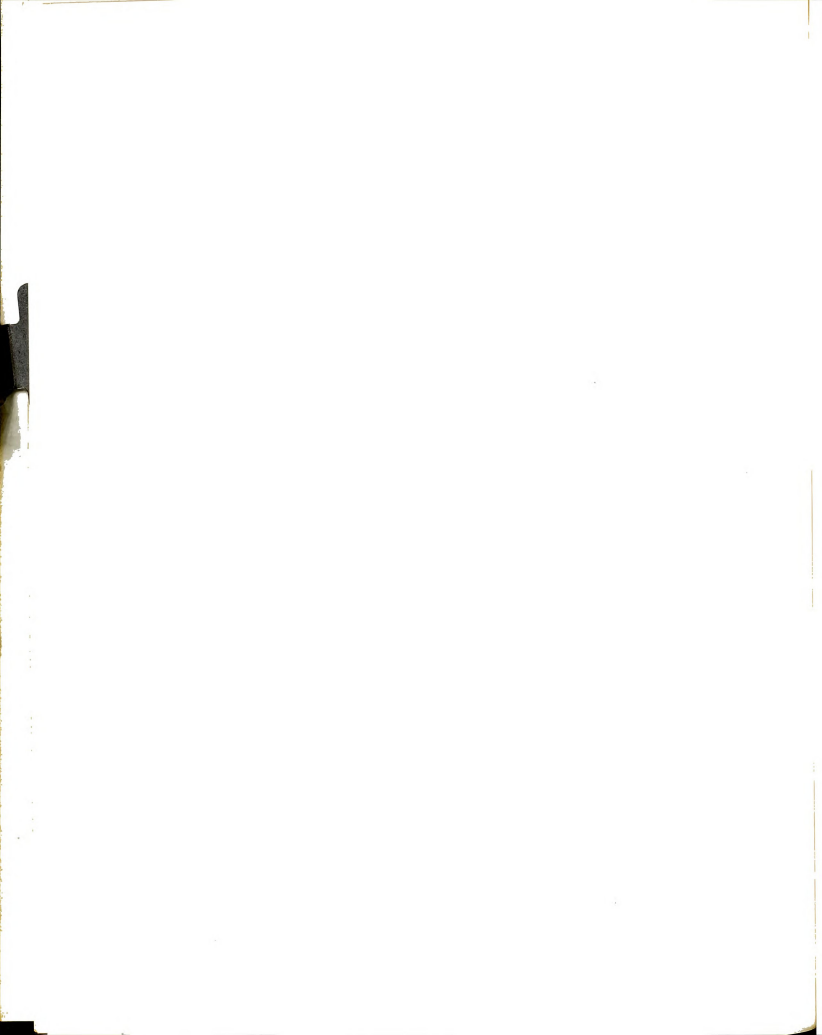
which professional journals satisfy their practical needs. While some teachers depend upon this source for new innovative procedures, others claim that neither the topics covered by articles within journals nor the format of these articles are appropriate to their problems. Yet, because of the nature and responsibilities of this group of educators, other sources of information such as researchers' "invisible colleges" are not available.

In the past, little attention has been directed to the question of the role of the professional journals from the point of view of the journals themselves. This self-perceived role may not be in agreement with the role assigned by the readers. If this were, in fact, the situation, the procedures adopted by the journals regarding selection and publication policies would be a possible cause of the journals' failure to meet the needs of the readers.

#### Rationale for the Study

The intent of this study was to assess the degree to which the current professional journals in education fulfill their role as information disseminator to both researchers and practitioners.

This study included the investigation of the journals' intended readership; the journals' overall characteristics, such as format and publication policies;



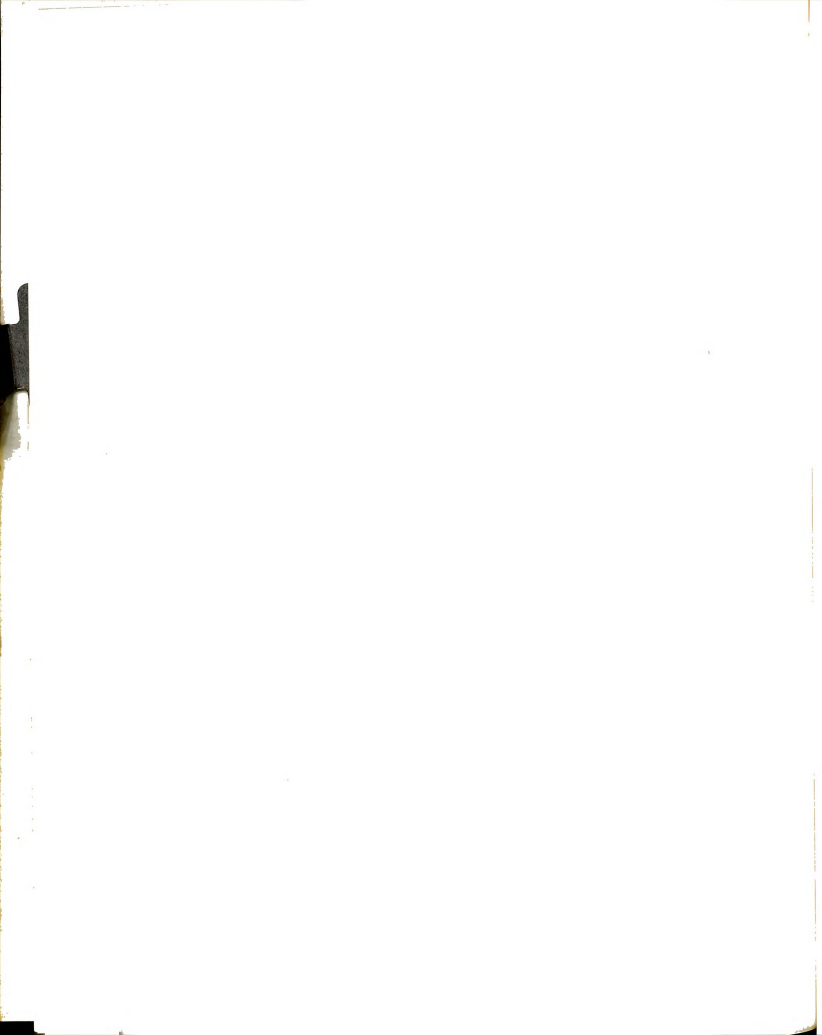
the articles' characteristics, such as type of article and topic; and the adequacy of the research reports.

The information provided by this study will be useful to editors and business managers as well as to readers of educational journals. Readers will be able to match their needs with what is offered in the various types of journal in order to find those which are most appropriate. Editors and others responsible for the publication of professional journals will be forced to evaluate their own position with regard to their goals and accomplishments. By seeing the entire situation and the existing relationships, they will be better able to evaluate their position as to whether they are doing the job they were intending to do. It is also hoped that they will be encouraged to better evaluate articles for publication and require greater excellence than mere existence as a criterion for publication.

This study will address the following question concerning one of the many roles that professional journals in education are required to fill, that of information and research dissemination.

Are current professional journals in education fulfilling their role as information disseminators to both researchers and practitioners in the field of education?

This will be accomplished by a specific investigation of the following questions which are basic to the problem.



For what types of readers are professional journals in education intended?

What journal characteristics are significantly related to intended readership?

What topics are significantly related to intended readership?

Is there a relationship between type of article and intended readership?

Is there a relationship between intended leadership and adequacy of research reports?

What data collection procedures are significantly related to intended readership?

What statistical methods reported are significantly related to intended readership?

What publication policies are significantly related to intended readership?

What journal characteristics are significantly related to adequacy of research reports?

What topics are significantly related to adequacy of research reports?

What data collection procedures are significantly related to adequacy of research reports?

What statistical methods reported are significantly related to adequacy of research reports?

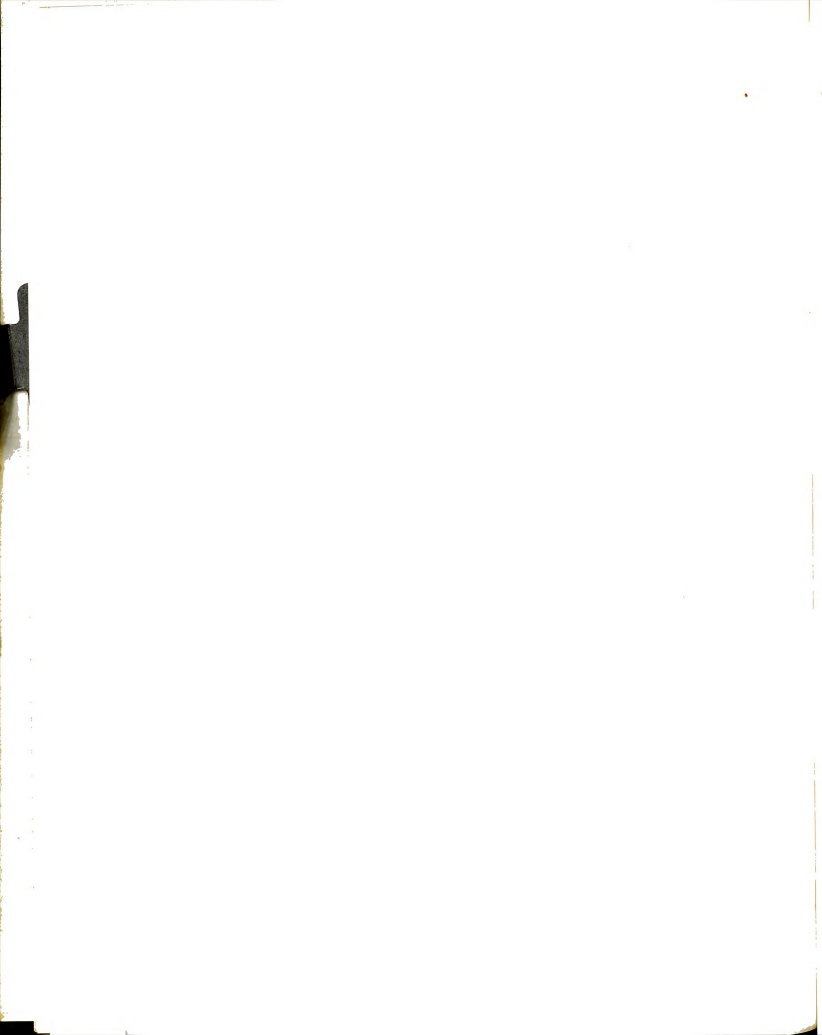
What publication policies are significantly related to adequacy of research reports?

#### Definition of Terms

Adequacy of research reports: The adequacy of

search reports was rated with standard expectations regarding the completeness of the problem definition,





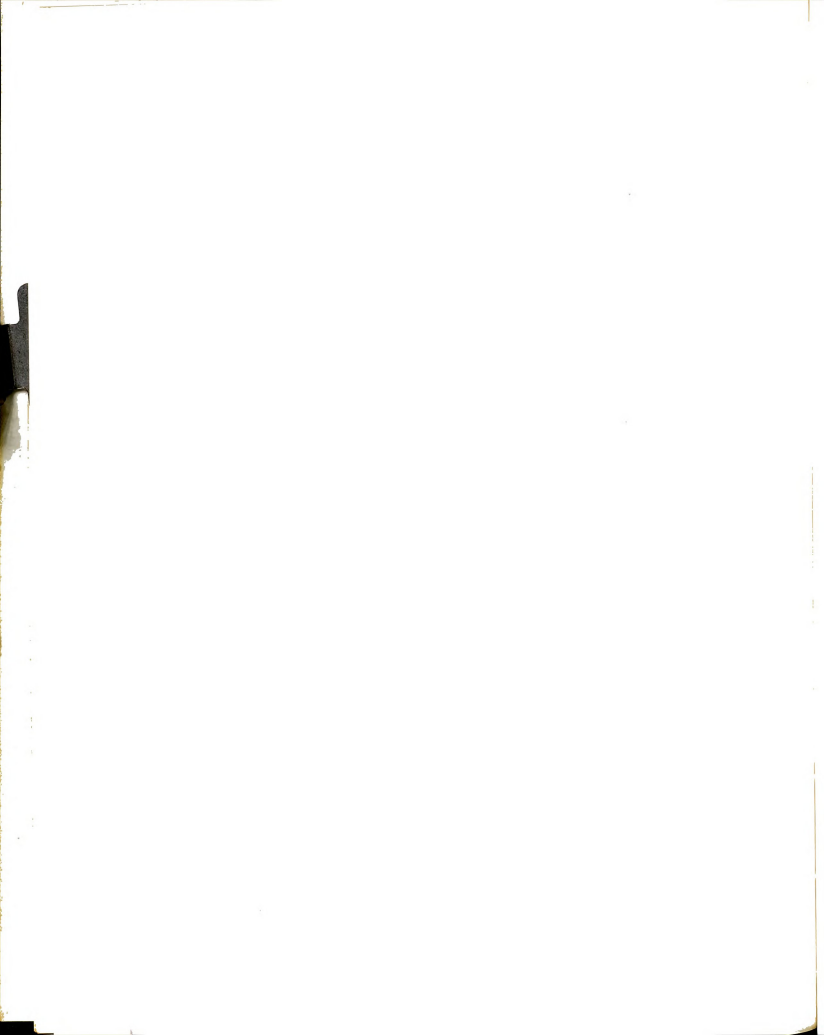
ne sample selection methodology reported, the appropriateness of the reported data collection, methods of analysis, the reported acknowledgment of a control or sampling error and/or bias, and the appropriateness of the conclusions generated.

Current journal: For this study, current journals are those issues of the professional journals in education having publication dates between January 1, 1970, and December 31, 1972, inclusive.

Intended readership: Intended readership is the type of reader for whom any particular journal asserts or implies that it attempts to publish articles.

Journal characteristics: Journal characteristics are those characteristics related to degree of contact with readers. They include the 1972 average monthly circulation, frequency of publication, average number of articles per issue, number of years of publication, and method of availability.

Type of article: Type of article refers to whether an article is primarily a(n) (1) research report--one for which the primary purpose is to report the results of a particular study or set of studies, (2) review of literature--one for which the primary purpose is to review the literature pertaining to a particular problem with the conclusions resulting from the review, or (3) expository article--one for which the primary purpose is to state



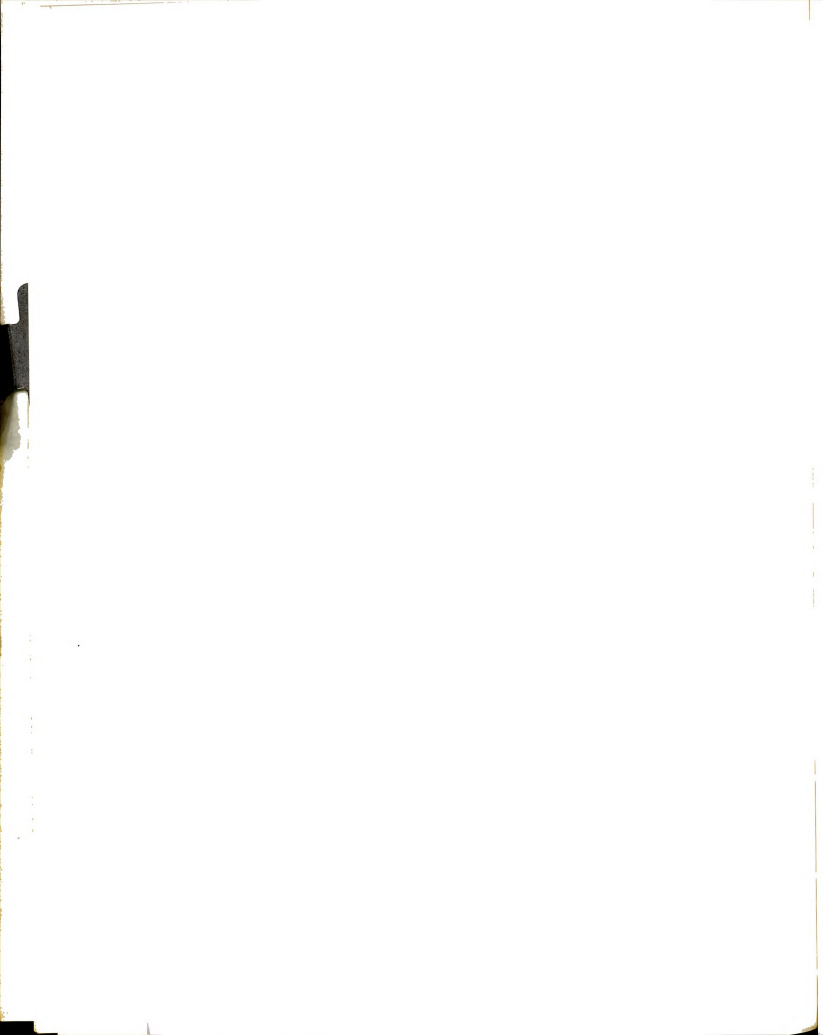
the author's view with reference to past research or literature only of incidental or supportive importance.

Method of Availability: Method of availability is based upon the contingencies upon which the journal is made available to its readership other than through sending procedures.

Publication delay: Publication delay is the average length of time between the date a prospective article is first submitted for publication consideration and the actual publication date.

Publication policies: Publication policies include publication delay, editors' ability to accept or reject articles for publication without further consultation, the average number of reviewers for acceptance or rejection of an article for publication, type of reviewers used, use of blind reviews, the basis for distribution to reviewers, use of evaluation guides, length restrictions, page charges, early publication fees, format requirements, proportion of articles rewritten, and the proportion of articles submitted which are actually published.

Type of reader: For this study, types of reader have been classified as predominantly those interested in research, college teaching, administration, counseling, elementary and/or secondary school teaching, and those having other education-related interests.



Type of reviewer: Type of reviewer included two categories: expert consultants called in on an individual article basis, and a permanent review board.

#### Overview

This chapter has included a statement of the problem as well as the objectives to be dealt with by the study. Chapter II presents a review of the major literature regarding the problem of interest. Chapter III presents a summary of the research methodology utilized for the study. Chapter IV includes the data analysis and resultant findings. Chapter V presents the conclusions and recommendations for further study that were derived.



## CHAPTER II

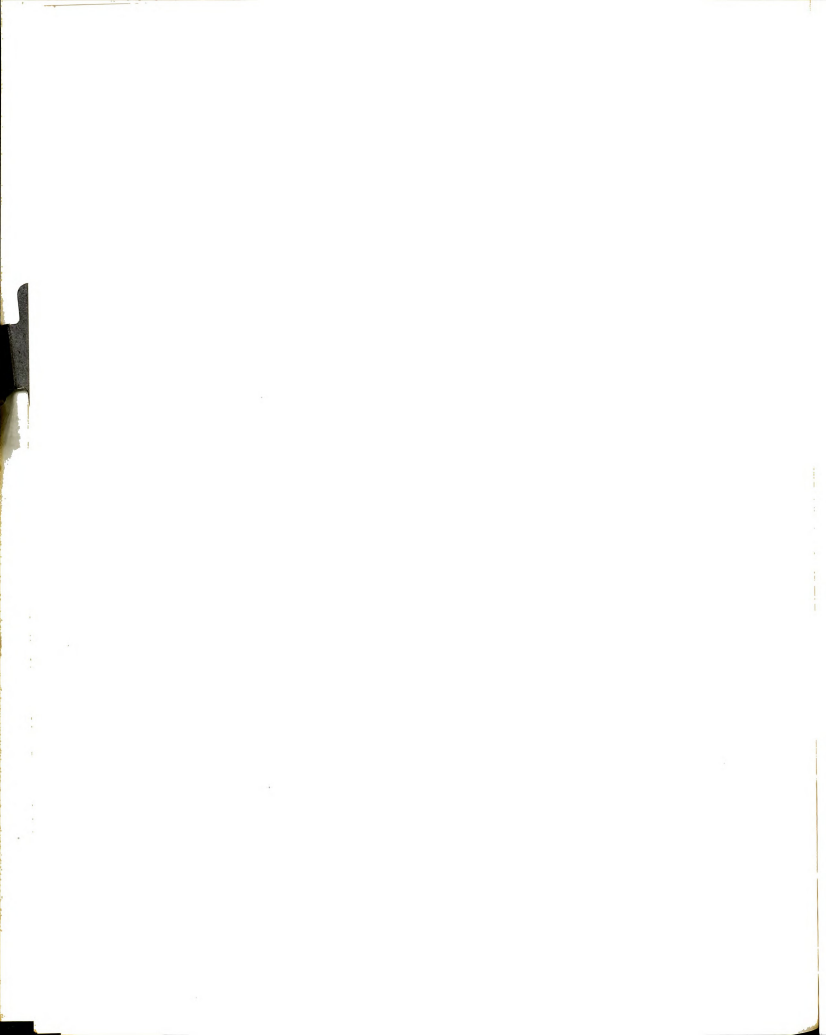
### REVIEW OF THE LITERATURE

The review of literature regarding the topics of interest in the study is presented in this chapter. The first section deals with the increased funding of educational research studies since the 1950s. The second section presents the role of professional journals as their role relates to the needs of the readership. The varied needs of readers of professional journals are discussed in the third section. The fourth section reports literature concerning the publication policies of professional journals. The final section deals with the methodologies that have been utilized for the evaluation of research articles. A summary of the literature concludes this chapter. As was mentioned earlier, little research has dealt exclusively with professional journals in education. Therefore, the assumption was made that educators are similar to other social scientists in their use of journals.

#### Research Funds

A hierarchy of motives for research has been developed by John Carroll. Curiosity has been defined as



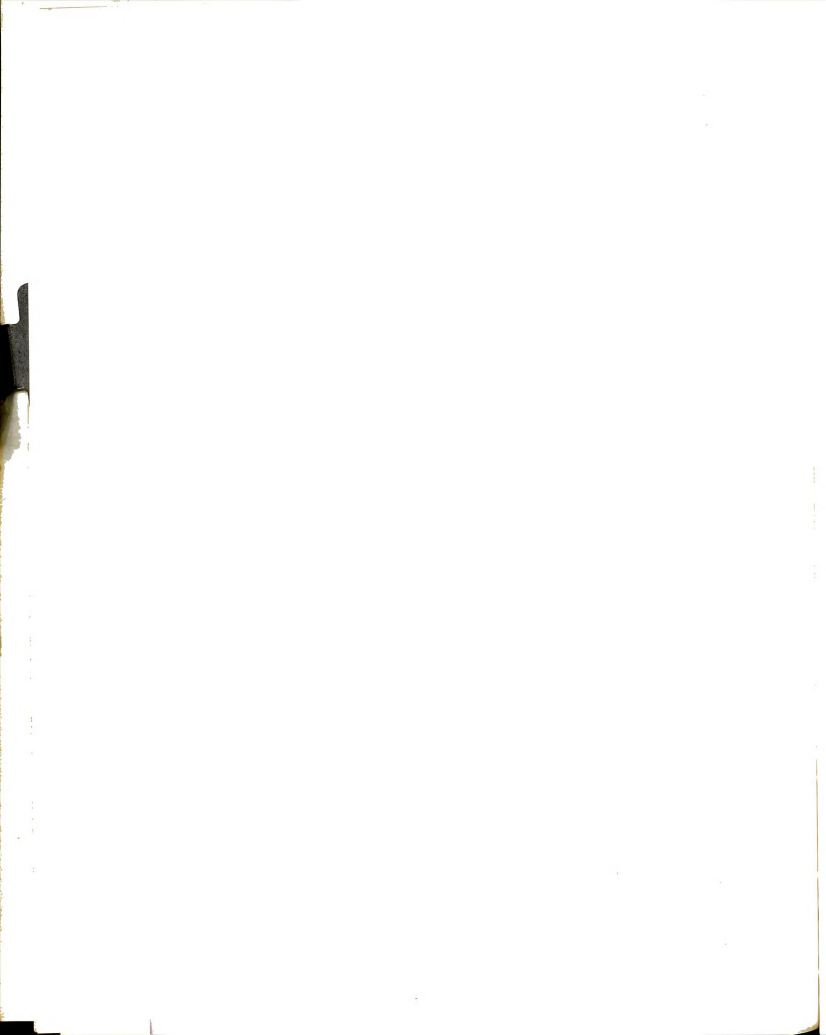


the simplest and primary purpose for engaging in research. The second reason was considered to be the search for a better understanding of natural phenomena. Both of these motives are concerned with the advancement of knowledge for its own sake. Research directed toward the satisfaction of these motives is referred to as basic research. The remaining two reasons deal, on the other hand, with applied research. These utilitarian aims may be associated with either general, undefined intentions or with clearly defined practical goals. However, such precise differences are not always apparent under real life conditions.<sup>1</sup>

The Cooperative Research Program in 1957 devoted approximately \$1 million for basic research in education. In 1958, this allocation was raised to \$2.3 million and by 1962 to \$3.4 million. In order to benefit from these increased expenditures, the Office of Education assumed a role in the development of seminars designed to assist researchers in the identification of areas for research and the refinement of research designs. Claims were repeatedly made that research and development would

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<sup>1</sup>John P. Carroll, "Basic and Applied Research in Education, Definitions, Distinctions and Implications" Harvard Educational Review, XXXVIII (Spring 1968), 263-276.



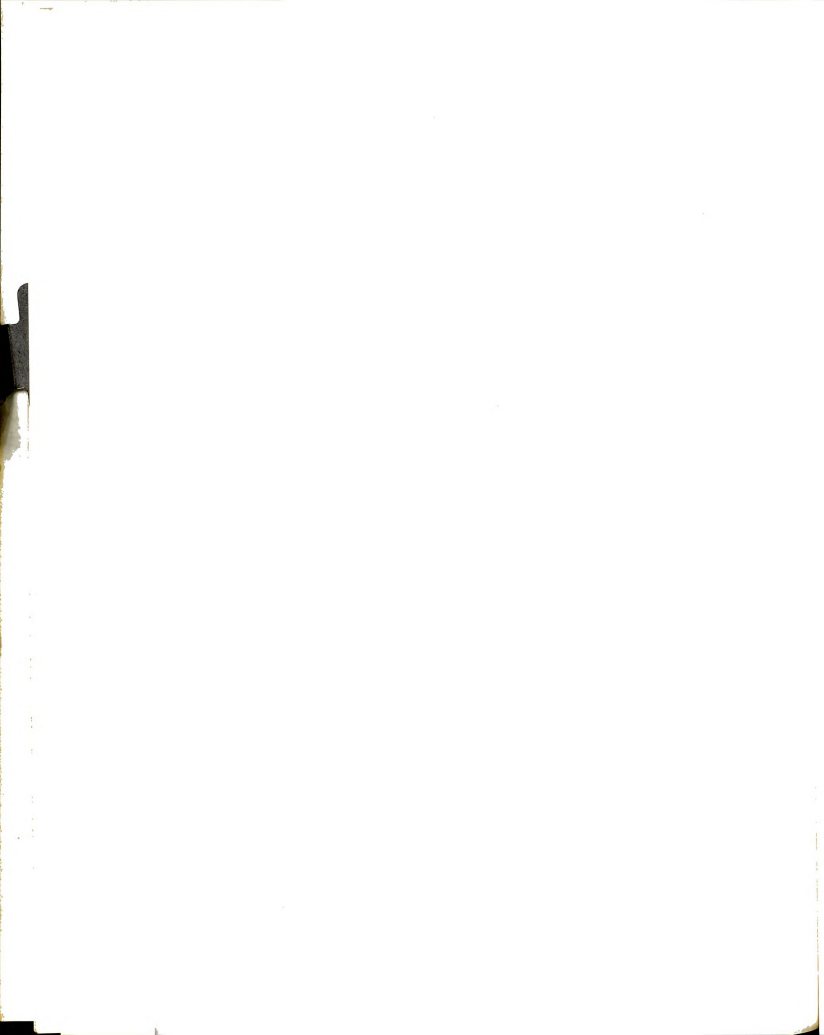
provide a ready, available means for improving the quality of the schools.<sup>2</sup>

Corey reported the criteria that were established in regard to the type of surveys which were eligible for funding under Public Law 83-531. This law was approved by the 83rd Congress in 1957. It also provided the first federal support for educational surveys.

1. The study must be expected to have a demonstrable value to education within a reasonable time period.
2. The study must be concerned with a problem on which progress had been delayed because of wide gaps in existing knowledge.
3. The study must have significance for the country as a whole.
4. Preference will be given to new projects or to those in which duplication will be desirable as a scientific check on earlier conclusions.
5. The consideration of each individual project was concerned with:
  - a. the competency of the individual designated as project director,
  - b. the research resources of the institution under whose auspices the project will be directed,
  - c. the scientific merit of the project,
  - d. the extent to which the project will serve to develop research personnel, and

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<sup>2</sup>Lindley J. Stiles, "The Cooperative Research Program Contributions and Next Step," Phi Delta Kappan, LIII (March 1962), 231-236.



- e. the need for research in the area proposed as compared to the total educational research picture.<sup>3</sup>

Not only have research expenditures been increased since 1957, but also the total federal budget allocations for all educational and manpower activities. Table 2.1 demonstrates precisely the continuing extent of these latter increases.

The evidence presented here indicates that, if a positive relationship is assumed between the amount of funds allotted to education and educational research and interest in these activities, then interest should have nearly doubled during the recent decade. At the same time, however, Stiles contends that the total expenditures for research in education are not sufficient. Less than one-half of one percent of the total operating budget for education in the United States is stipulated for research. On the other hand, industry reports that approximately 5 percent of their respective budgets must be directed toward research in order to merely maintain their position. The additional funds needed for educational research must come from federal and state governments, as well as from outside philanthropical foundations and individual school districts.<sup>4</sup>

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<sup>3</sup> Stephen M. Corey, "The Support of Research in Education," Teachers College Record, LIX (December 1957), 29-136.

<sup>4</sup> Stiles, op. cit.

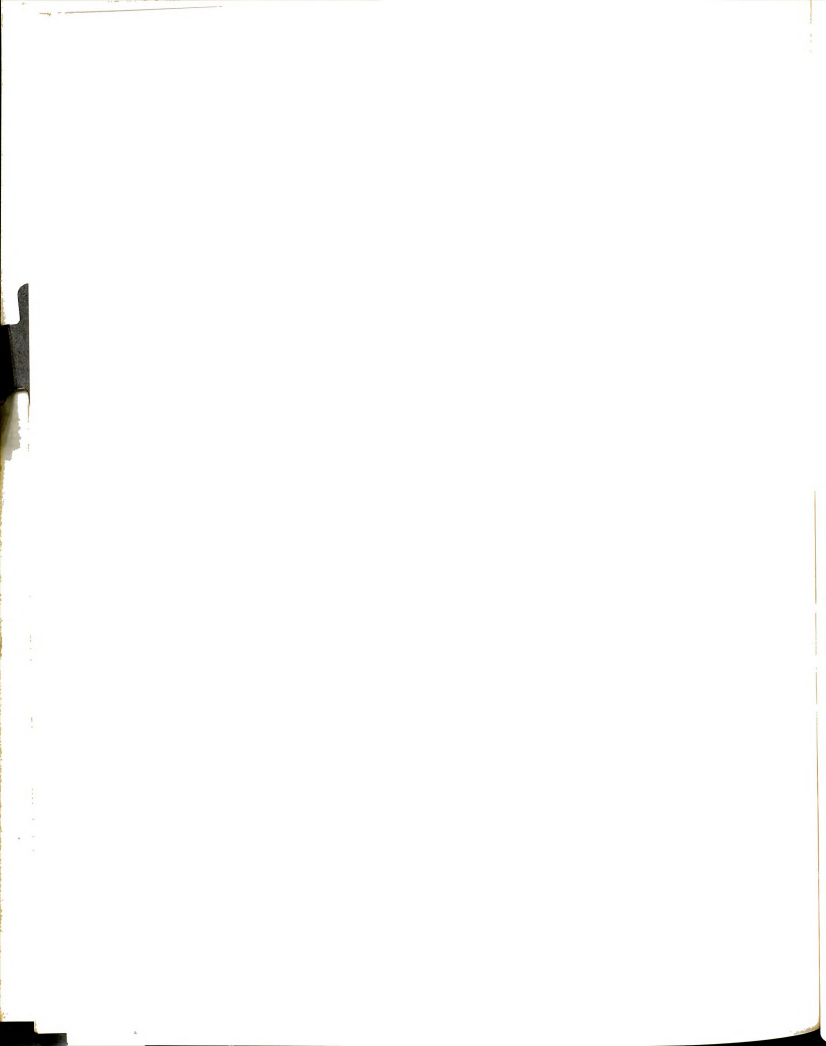


TABLE 2.1.--Federal Budget Outlays for Education and Manpower Functions, 1965 to 1973 (in billions of dollars).

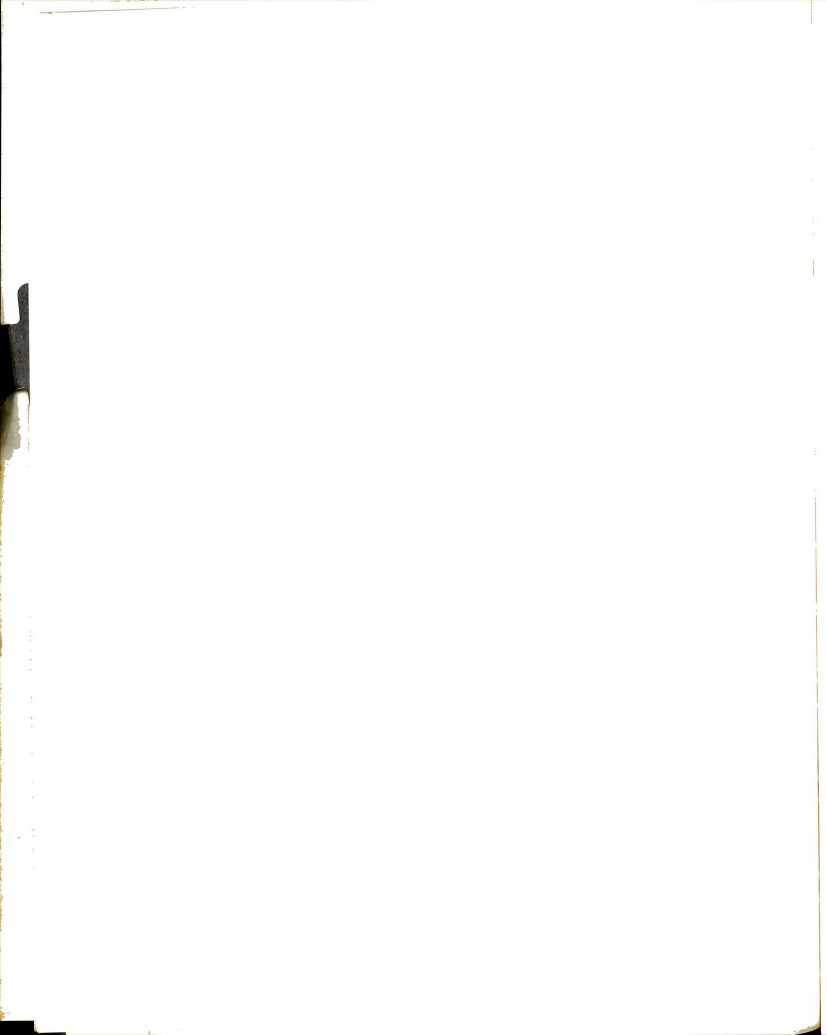
	1965	1966	1967	1968	1969	1970	1971	1972	1973
Total outlays	118.4	143.7	158.3	178.8	184.5	196.6	211.4	231.9	246.5
Total education and manpower	2.3	4.3	5.9	6.7	6.5	7.3	8.2	9.8	10.2
Manpower training and employment service	.5	1.0	1.2	1.6	1.6	1.6	2.0	2.9	3.3
Elementary and secondary education	.6	1.8	2.4	2.6	2.5	2.8	3.2	3.5	3.2
Higher education	.4	.7	1.2	1.4	1.2	1.4	1.4	1.4	1.5
Vocational education	.1	.1	.2	.3	.3	.3	.4	.5	.6

Note: These figures on direct federal outlays for education and manpower do not include (1) federal funds for social security or veterans' benefits payments to which participants in education or training programs may be entitled; or (2) federal outlays for research and development conducted at educational institution.

Figures are not adjusted for inflation.

Source: The United States Budget in Brief: Fiscal Year 1974. U.S. Government Printing Office, Washington, D.C., pp. 63 and 65.





Nevertheless, regardless of the budget intended for educational research, unless the pertinent information is available to those individuals responsible for the implementation of change in the schools, the new knowledge does not provide for improvement in education.

### Role of Professional Journals

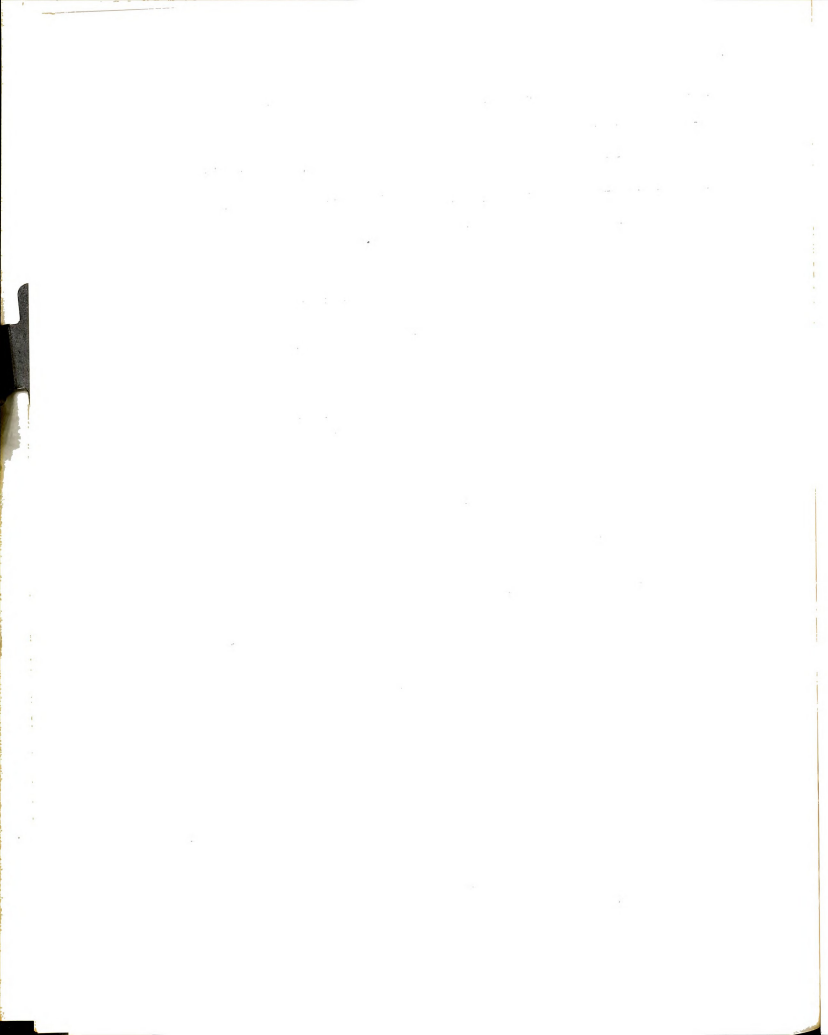
The professional journal is the most available tool for the distribution of information with the possible exception of professional meetings. The researchers' efforts are also directed into the processes that are associated with the publication and distribution of professional journals. The researchers' responsibilities include writing papers, reviewing manuscripts, editing journals, purchasing journals, sending out reprints, requesting reprints, and reading journals.

Kessler described the journal as "the most successful and ubiquitous carrier of scientific information in the entire history of science." The scientific paper was described as so useful that it is frequently taken for granted and its form and structure forgotten.<sup>5</sup>

A study completed at Johns Hopkins University by Harvey and his associates dealt with the process of dissemination of information from the area of research to its

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<sup>5</sup>M. M. Kessler, "Some Very General Design Considerations," TIP System Report (Massachusetts Institute of Technology: October 1967).



ers of the new ideas. While natural scientists most often disseminate their research first at colloquies and preprints, then at professional meetings, all prior to publication, social scientists frequently depend solely on journals. Garvey summed up the differences as follows:

The physical scientist seems to do the most intensive dissemination of information in the shortest period of time and in the most effective manner for assimilation; the social scientists disseminate more diffusely, over a longer period of time, and in a manner less conducive to successful assimilation.<sup>6</sup>

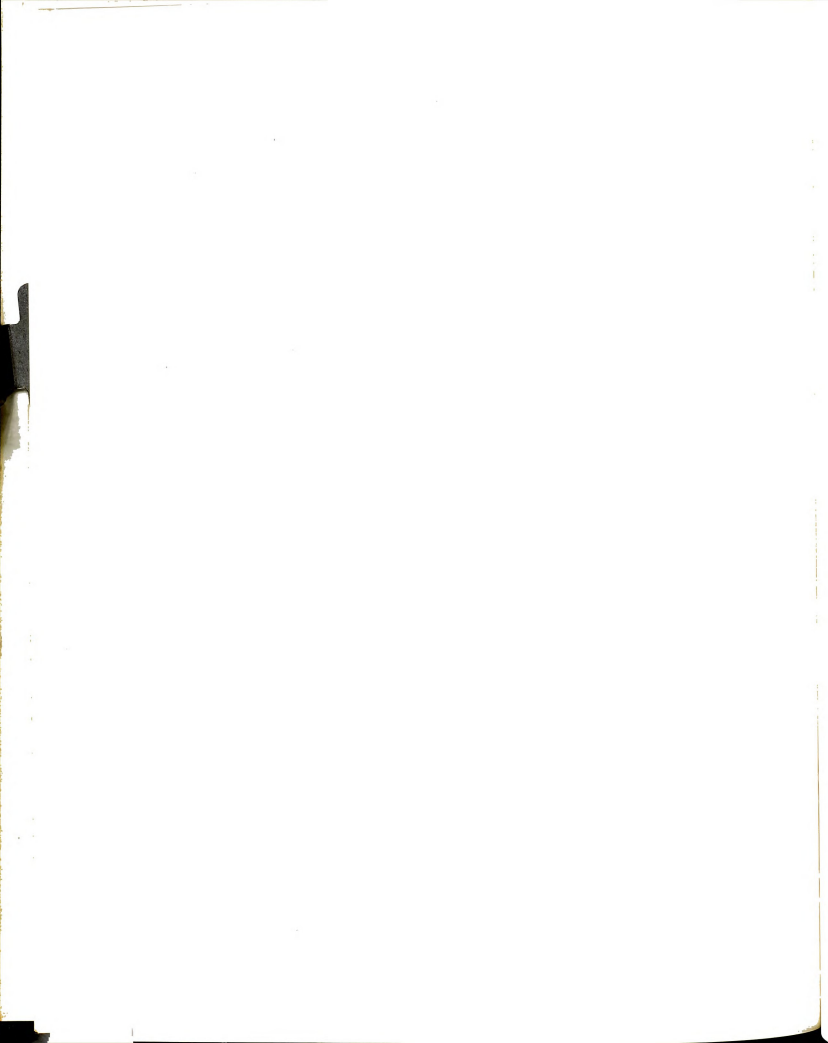
It was also found that the time interval between the successful completion of research to its presentation in professional literature is longer in the social sciences than in the natural sciences.<sup>7</sup>

Marquis and Allen also argued that differences can be found between scientists and applied technologists in regard to communication patterns. Applied technologists tend to keep new information within their own organization because it most frequently is not general enough for publication. On the other hand, scientists seek to communicate

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<sup>6</sup> Johns Hopkins University, Center for Research in Scientific Communication, Production, Exchange, and Dissemination of Information in Journal Articles on Sociology, JHU-SC Report No. 17 (Baltimore: Johns Hopkins Press, January, 1971).

<sup>7</sup> William D. Garvey, Nan Lin, and Carnot E. Nelson, Communication in the Physical and Social Sciences, Science, CLXX (December 1970), 1165-1173.



new information to other scientists.<sup>8</sup> Menzel reported that this scientific communication is carried on primarily through personal contacts due to a lack of confidence in the printed work.<sup>9</sup>

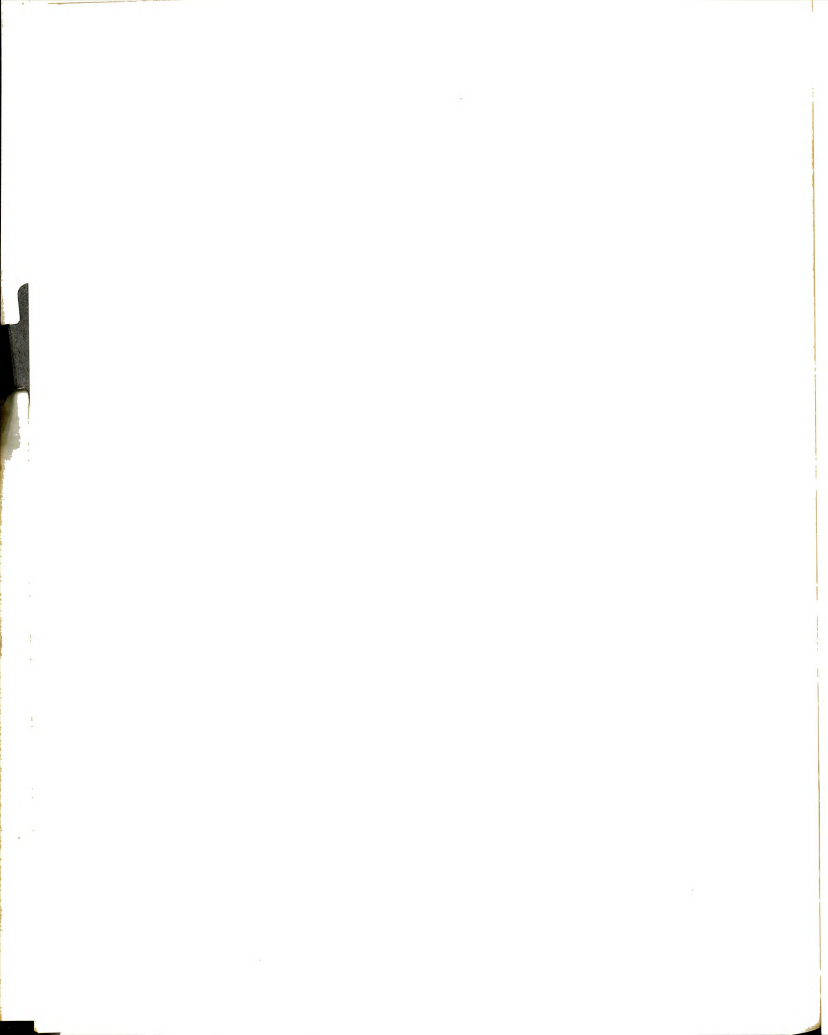
It has been pointed out, however, that the role of the professional journal as the disseminator of information may at times be a difficult one. Not only do the needs of the readership differ, but also numerous decisions must be made regarding the publication of each article submitted.

Wright has ascribed to editors and editorial board members a leadership position in the field of education to which he gives the title of gatekeeper. He claims that this group plays an important, but often unrecognized role in deciding the "what and how of knowledge and communication dissemination." Editors and journals influence education through their goals and objectives, the content and approaches of scholarly work, the methodologies considered appropriate, as well as the level of scholarship

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<sup>8</sup> Donald E. Marquis and Thomas J. Allen, "Communications Patterns in Applied Technology," American Psychologist, XXI (November 1966), 1052-1062.

<sup>9</sup> Herbert Menzel, "Scientific Communications: Five Themes from Social Science Research," American Psychologist, XXL (November 1966), 999-1004.



considered worthy of publication. Journals also influence education through their rejection policies.<sup>10</sup>

In support of the ideas expressed by Wright, Silverman argued that educational journals must accept the responsibility for developing an awareness and capability among their readership that will effectively link the scholars and practitioners. The increased awareness and capability should improve both the use made of journals and the contributions made to them.<sup>11</sup>

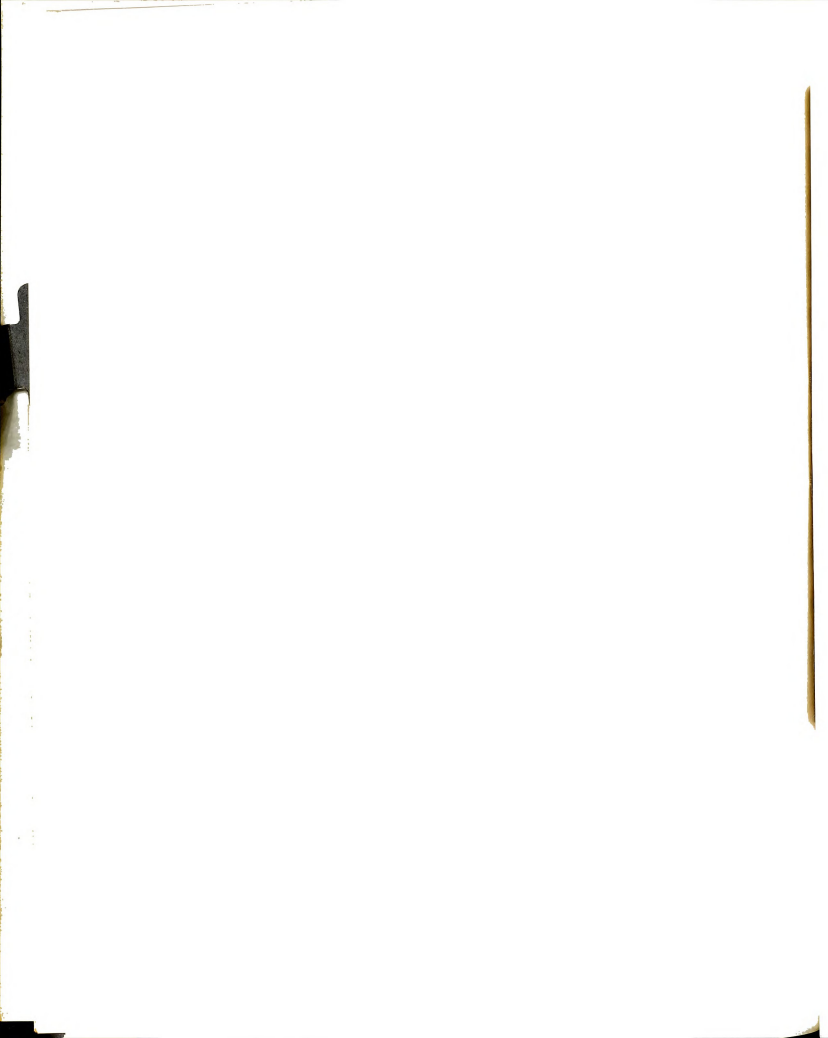
Regardless of the difficulties inherent in the dissemination of information, the professional journal was found by Binyon, in England, to be frequently read by teachers. Over 75 percent of the teachers reported that they regularly read The Times Educational Supplement. Nearly one-half regularly read The Teacher, while less than 26 percent read Educational Research, the National Foundation for Educational Research journal. The teachers reported that not only was little research related to normal working conditions, but particularly that research

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<sup>10</sup>Ronald A. Wright, "The Gatekeeper's Role in Educational Journal Publishing," a Research Proposal submitted to the National Institute of Education on March 1, 1973.

<sup>11</sup>Robert J. Silverman, "Communication as the Basis for Disciplinary and Professional Development in Higher Education," Journal of Research and Development in Education, X (January, 1973).





was of little help in designing changes in teaching methods or curriculum as local conditions were ignored.<sup>12</sup>

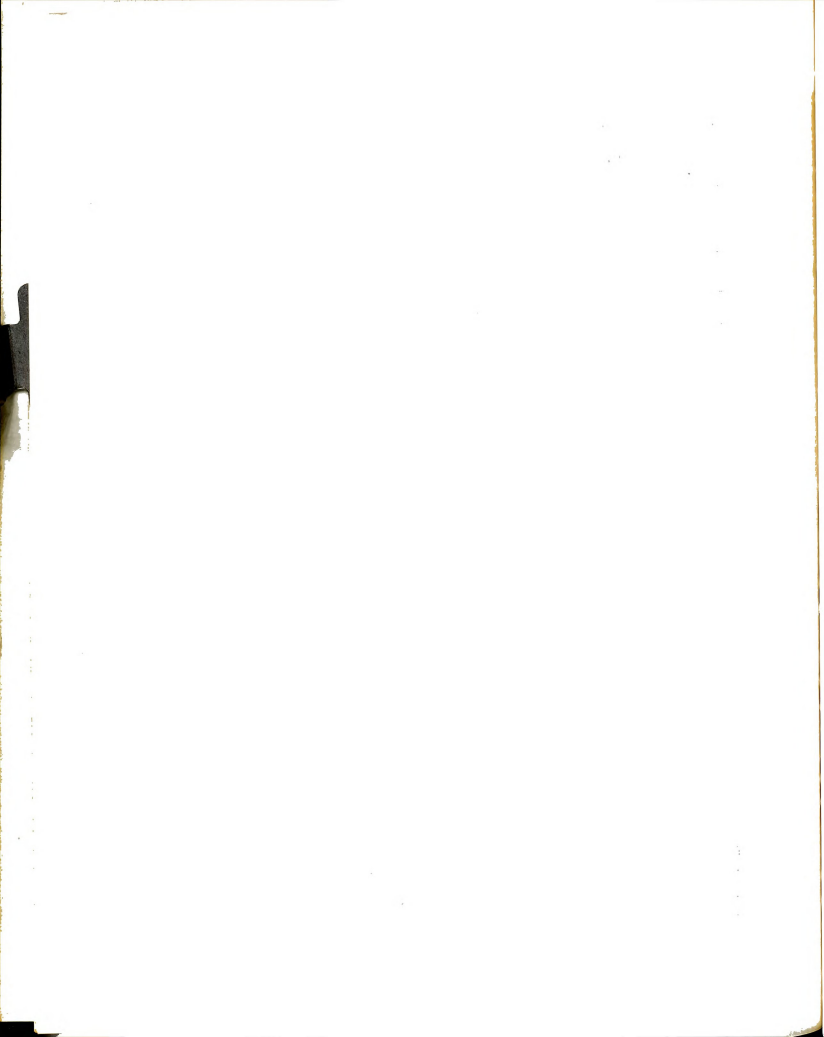
Halpin reported basic agreement with this position. However, he went further, claiming that there was not a need for either improved dissemination or further research. The problem is rather that the requirements for the educational research profession have been reduced, thereby resulting in an inadequately trained group of individuals. Much professional writing, therefore, has depended upon the use of "profane jargon" as a substitute for a limited vocabulary and unclear thinking. This jargon has served to widen the communication gap between teachers and researchers. On the other hand, "sacred jargon" is necessary to precisely describe new ideas and this precision makes the communication different from everyday language. Teachers must be motivated to learn this sacred jargon in order to understand research.<sup>13</sup>

Both Kent and Gange, however, claim that despite the increasing number of journals devoted to the publication of research studies, that approximately 16 percent

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<sup>12</sup>Michael Binyon, "Most Research Unrelated to Work," The Times Educational Supplement (London), May 22, 1970.

<sup>13</sup>Andrew Halpin, "Jargon . . . Sacred and Profane," Phi Delta Kappan, XLIII (March 1962), 237-239; Andrew Halpin, "Problems in the Use of Communication Media in the Dissemination and Implementation of Educational Research," Dissemination and Implementation, Third Annual Phi Delta Kappan Symposium on Educational Research, eds. Keith Goldhammer and Stanley Elom (Bloomington, Indiana: Phi Delta Kappa, Inc., 1962), pp. 171-200.



of a sample of funded research studies were not reported in any of the available publications. Private philanthropic agencies are particularly reticent to encourage publication, preferring instead to avoid publicity.<sup>14</sup>

The role of the professional journal apparently should be as a disseminator of information including research studies. However, a question remains as to how well this role is being achieved. It may be that the degree to which this role is accomplished is dependent upon the perceived readership of the journal.

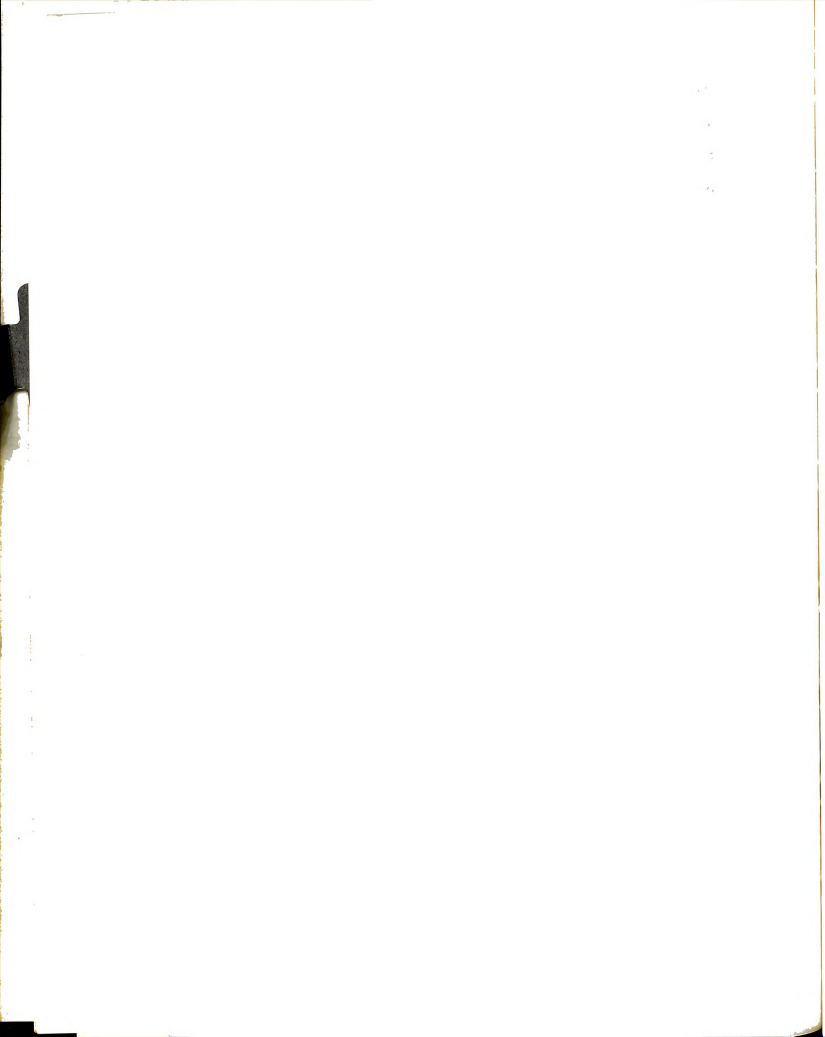
#### Readership

Despite the fact that the quantity of scientific literature has grown at an exponential rate, both scientists and technologists have continued to voice complaints regarding the relevance of the available literature. Both categories of readers insist that their own particular needs for information are not being met.

In 1897, Davis developed a list of approximately 170 educational periodicals that were published during the nineteenth century. Of these, only 60 were being published in 1897. Those 60 periodicals, however, had only

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<sup>14</sup>Allen Kent, "Problems in the Use of Electronic Data Processing for the Storage and Availability of Research Data," a Research Proposal Submitted to the National Institute of Education on March 1, 1973, pp. 1-31; John Gange, "The Role of Private Philanthropy in the Dissemination and Implementation of Educational Research," Journal of Research and Development in Education, 49-63.



local circulation and, therefore, were of little importance to the majority of educators.<sup>15</sup> About the same time, Monroe listed only 13 titles as being current American educational journals, as well as another 12 for which publication had been discontinued.<sup>16</sup>

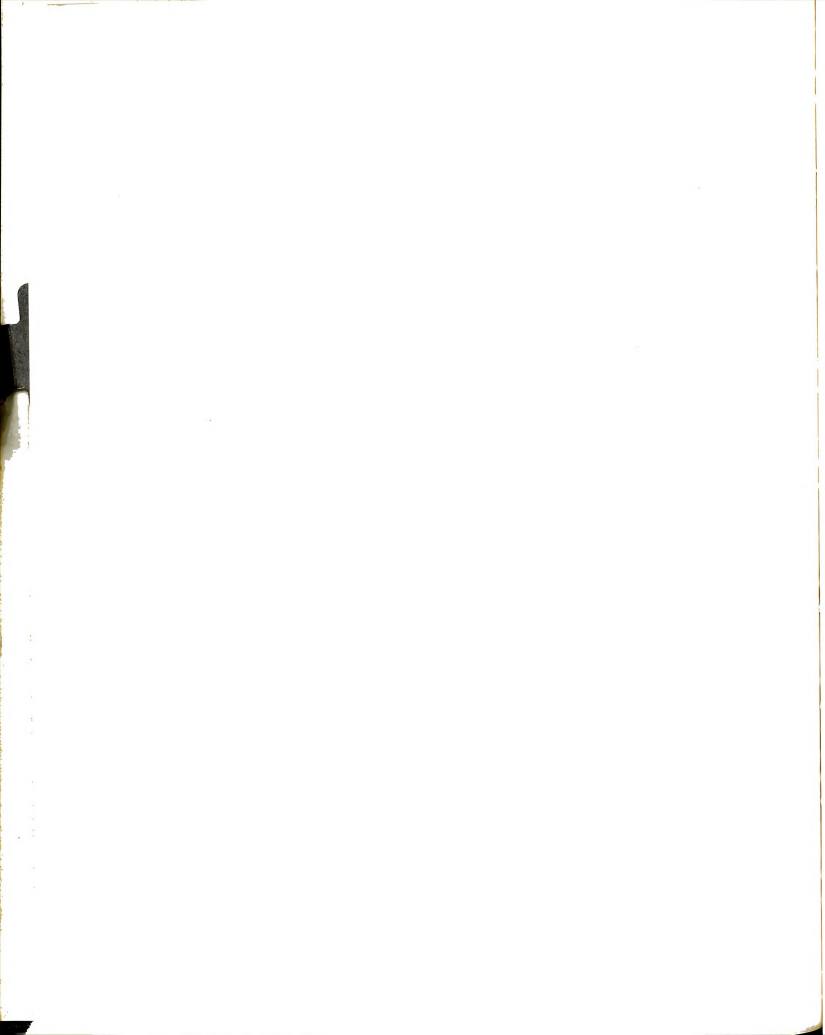
The Education Index, which is comparable to this latter Monroe index, during the period from 1944 to 1947 listed 161 periodicals, an increase of over a thousand percent. The Classified Index of Educational Periodicals in 1946 included 748 titles, which when compared to the Davis List also showed an increase of over a thousand percent.

One explanation for the few journals published in the nineteenth century is that the education research movement did not begin until 1897. It was in that year that J. M. Rice reported the findings of his study regarding the memorization method of teaching spelling in an article entitled, "The Futility of the Spelling Grind." In fact, as recently as the 1930s few research reports were included in the educational journals. During the fourth decade of the twentieth century, only approximately 5,000 research reports appeared in the periodicals.

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<sup>15</sup>E. D. Davis, Educational Periodicals During the Nineteenth Century, U.S. Office of Education, Bulletin, November 28 (Washington, D.C., 1919).

<sup>16</sup>Will S. Monroe, Bibliography of Education (Appleton Press, 1897).



On the other hand, in the preface to the 1941 edition of the Encyclopedia of Educational Research the following statement appeared: "The fragmentary evidence suggests that, if research is literally interpreted and unpublished studies are included, the total is not far from 100,000."<sup>17</sup>

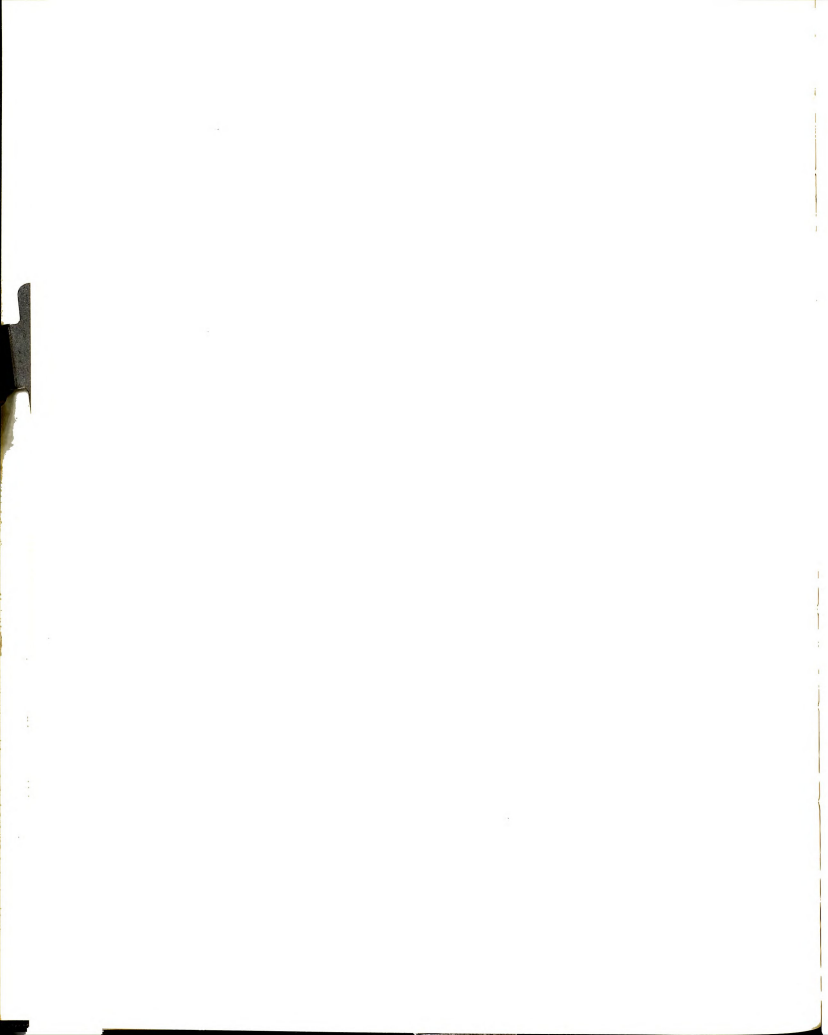
It appears that the quantity of both educational research and professional journals has been rapidly increasing during the present century. However, the readership continues to insist that their particular needs are not being met; possibly because unless the information that is available is applicable to the readers' needs, it has little impact.

Many studies have dealt with questions concerning the usefulness of various communication channels to defined classes of users. One of the most frequent investigators of these questions is William Garvey. In a study of members of the American Psychological Association he found for a group of 27 journals that from 2 to 91 percent of the respondents reported that they regularly read the journal. The area of specialization and educational level differentiated the regular readers of different journals from one another.

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<sup>17</sup>Walter S. Monroe, "Literature of Education," Encyclopedia of Educational Research (New York: Macmillan, 1950), pp. 334-336.





He also found that fewer than one percent of the respondents read half of the listed articles. Review and theory articles were read most often. The conclusions or general point were checked most often as the most useful aspects of the articles, while theory, method, and data were checked by approximately 22 percent of the readers.<sup>18</sup>

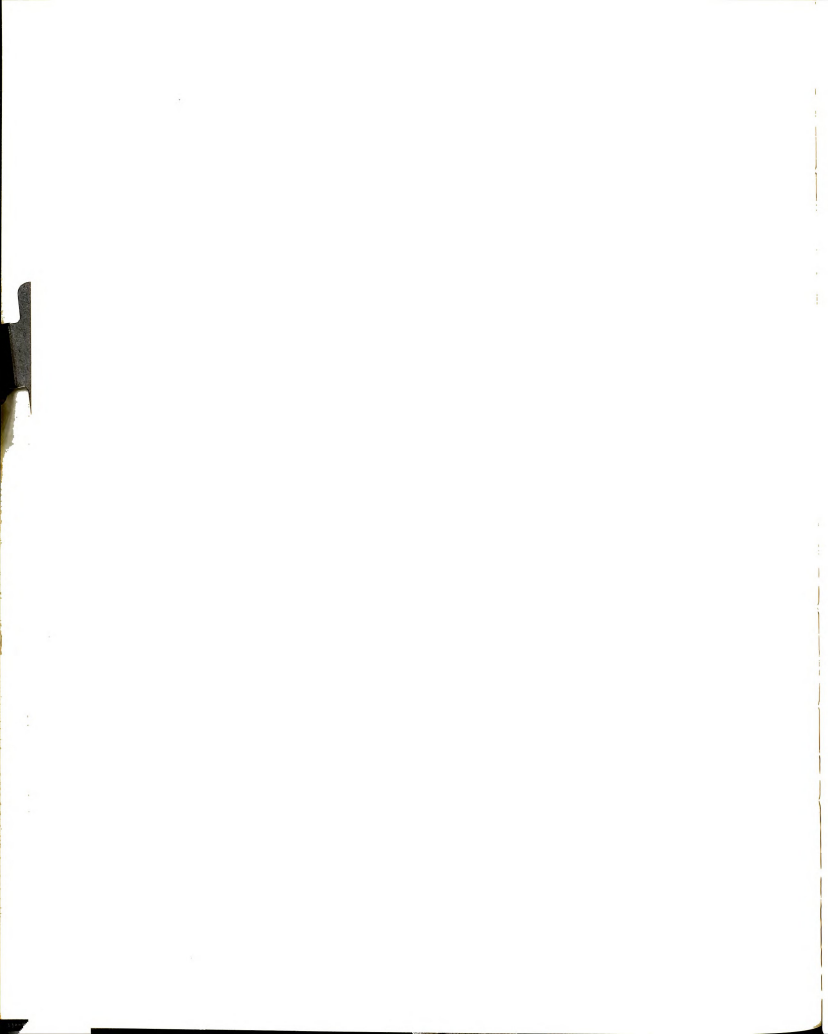
Bernard, Shilling, and Tyson in a study of the sources of information that influenced a group of scientists in the development of their own research found that a combination of literature and informal discussion was reported most often. The use of literature was found to increase with age while the use of informal discussion decreased with age, possibly because the younger are more often guided by senior researchers.<sup>19</sup>

In the series of studies by Garvey and associates, it was found that following presentation at colloquia approximately one-half of the reports were published in a journal with less than one percent of those submitted for publication being rejected. This latter finding can possibly be explained by the fact that over one-half of the authors had received comments from others prior to submission of the report for publication.

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<sup>18</sup>Garvey, op. cit.

<sup>19</sup>Jessie Bernard, Charles W. Shilling, and Joe W. Tyson, Informal Communication Among Scientists (Washington, D.C.: George Washington University, 1964).



Perrucci and Rothman designed a study to determine the extent of differences between Ph.D. and non-Ph.D. technologists in regard to knowledge of new ideas presented in the journals. He found the following characteristics possessed by the majority of respondents who were familiar with new ideas: (1) Ph.D., (2) new in the particular job, and (3) high level of responsibility in organization.<sup>20</sup>

In a study of the perceptions of teachers regarding education research, Mosely reported that "Research, being an imperative part of education, influences the process of education only to the extent it is put into practice." He further stated that ". . . the research should not only provide new ideas for teachers to try, but also ideas which are related to the teachers' needs and problems at the present time."<sup>21</sup>

Courtney<sup>22</sup> and Oettinger<sup>23</sup> agree that the problems encountered by teachers in the application of research findings are the result of inadequate preparation. Few

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<sup>20</sup>Robert Perrucci and Robert A. Rothman, "Obsolescence of Knowledge and the Professional Career," The Engineers and the Social System (Wiley: New York, 1969), pp. 247-276.

<sup>21</sup>Aubrey Howard Mosely, "A Study of Teacher Perception of Factors Related to Educational Research" (unpublished Ph.D. dissertation, University of Alabama, 1966).

<sup>22</sup>E. Wayne Courtney, Applied Research in Education (New Jersey: Littlefield, Adams, 1965).

<sup>23</sup>Anthony Oettinger and Soma Marks, "Educational Technology: New Myths and Old Realities," Harvard Education Review, XXXVIII (Fall, 1968), 697-717.



teachers have received training in research methodology or in the evaluation of new ideas.

Garverick agreed with the lack of training of teachers to use professional journals. At the beginning of a graduate level seminar on this subject the participants developed a list of useful journals. Another such list was developed at the end of the seminar. Table 2.2 presents both of these lists in rank order of preference. Significant changes occurred not only in the relative importance of the journals but also in the number of useful journals, indicating that an increase in understanding by teachers may be an important factor in increasing the usefulness of available research reports.<sup>24</sup>

If the needs of readers are not being met the responsibility for change must rest not only with increased training, but also with the journal. The interests of the readers and their varied characteristics must be considered in the selection of articles for publication.

#### Publication Policies

Policies must be established for each journal regarding the selection of particular articles for publication. Due to the extremely large number of articles submitted, some form of control must be exercised. Also,

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<sup>24</sup>Charles Garverick, "Teacher Use of Educational Psychological Journals," Journal of Teacher Education, XVIII (Summer 1967), 192-194.

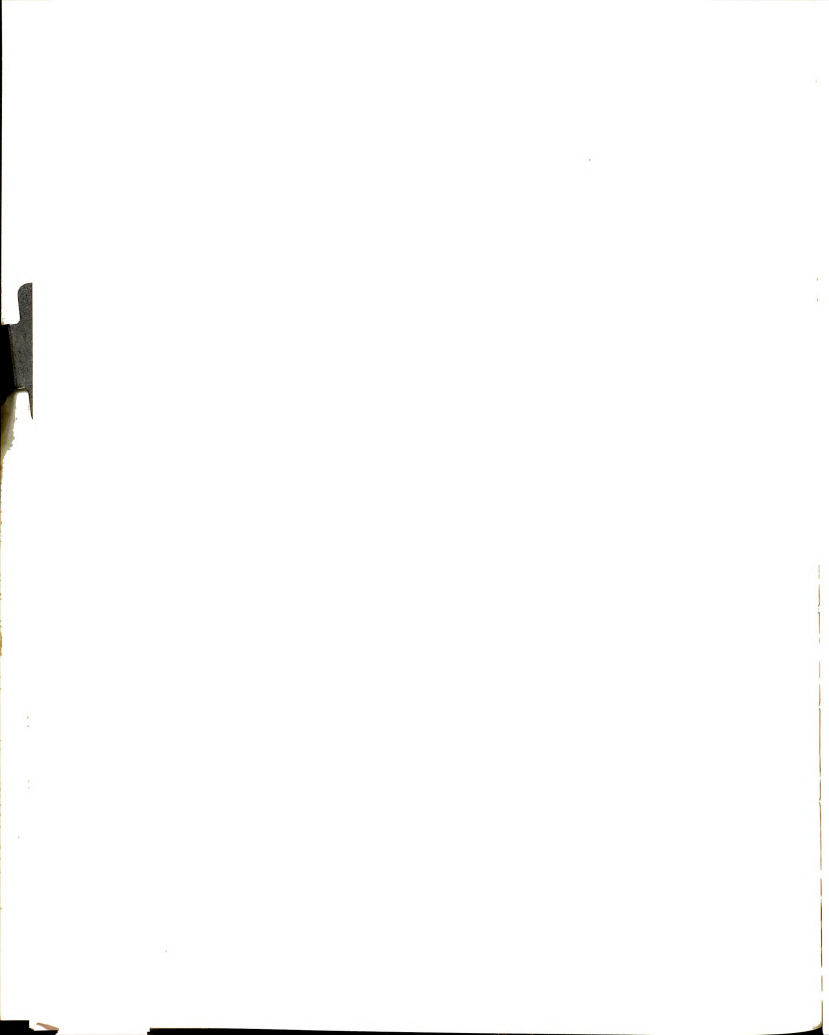
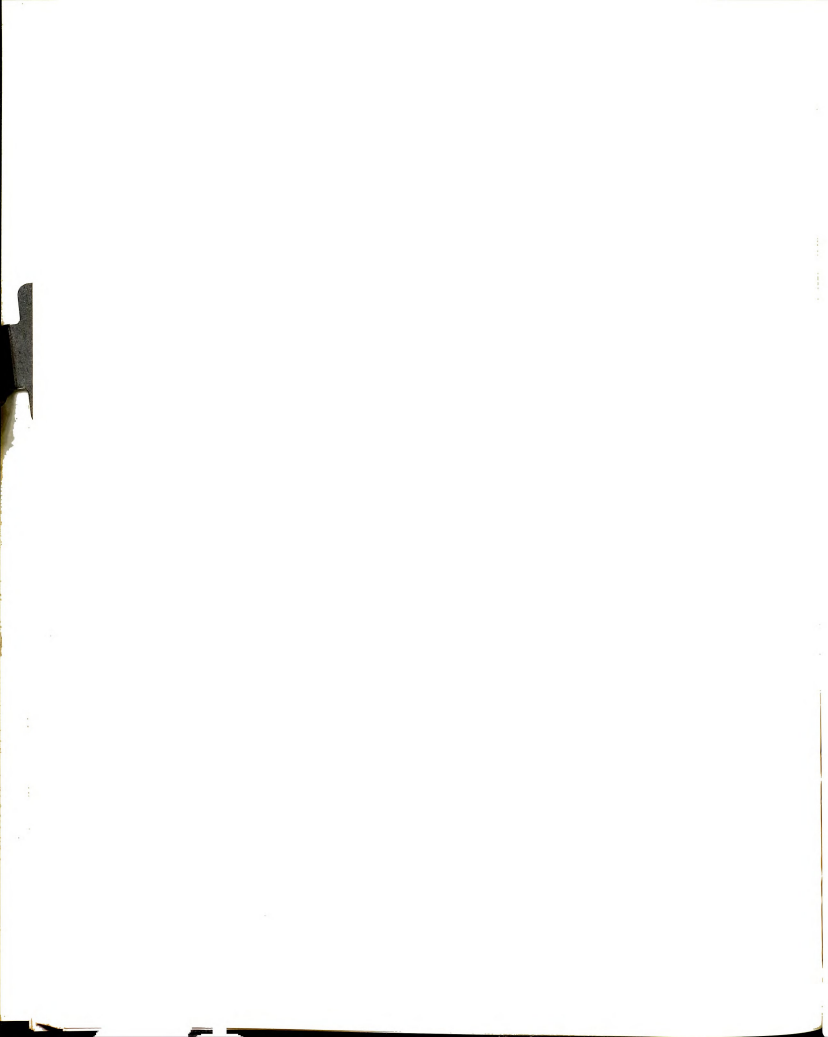


TABLE 2.2.--List of Useful Journals.

<u>Beginning</u>	<u>End</u>
<u>Journal of Educational Psychology</u>	<u>Educational Digest</u>
<u>EA Journal</u>	<u>Education</u>
<u>Journal of Abnormal and Social Psychology</u>	<u>Exceptional Children</u>
<u>Personnel Guidance Journal</u>	<u>Clearinghouse</u>
<u>Mathematics Teacher</u>	<u>Journal of Educational Psychology</u>
<u>Exceptional Children</u>	<u>Harvard Education Review</u>
<u>Grade Teacher</u>	<u>Review of Educational Research</u>
<u>TA Magazine</u>	<u>Journal of Counseling Psychology</u>
<u>English Journal</u>	<u>Phi Delta Kappan</u>
<u>Journal of Home Economics</u>	<u>Bulletin of the National Association of Secondary School Principals</u>
<u>Social Studies</u>	<u>Children</u>
<u>Clearinghouse</u>	<u>Journal of Elementary Education</u>
	<u>NEA Journal</u>
	<u>School Review</u>
	<u>High School Journal</u>
	<u>Teachers' College Record</u>
	<u>Personnel Guidance Journal of Child Development</u>
	<u>Educational Forum</u>
	<u>Journal of Educational Research</u>





attention must be given to the quality of the articles that are published.

Zuckerman and Merton have indicated that the scientific areas differ considerably in the rates of acceptance/rejection of manuscripts. The mean rejection rate in geology is 22 percent, while in chemistry it is 31 percent. Comparable rates were found in other natural science areas. On the other hand, the rates in the social sciences are much higher: 69 percent in economics, 78 percent in sociology, and 90 percent in history.<sup>25</sup> While the field of education was not included in this study, Silverman, editor of the Journal of Research and Development in Education, reported a 90 to 93 percent rejection rate for the over 500 unsolicited manuscripts received each year.<sup>26</sup>

The American Educational Research Journal during 1969 and 1970 reported an acceptance rate of 18 percent for unsolicited manuscripts. Turner describes in regard to the American Educational Research Journal the process by which an article is reviewed. The steps are shown in Table 2.3 along with the percent of rejection occurring at each of the first steps. All manuscripts submitted

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<sup>25</sup>Harriet Zuckerman and Robert K. Merton, "Patterns of Evaluation in Science: Institutionalization, Structure and Functions of the Referee System," Minerva, XI (January 1971), 66-100.

<sup>26</sup>Silverman, op. cit.

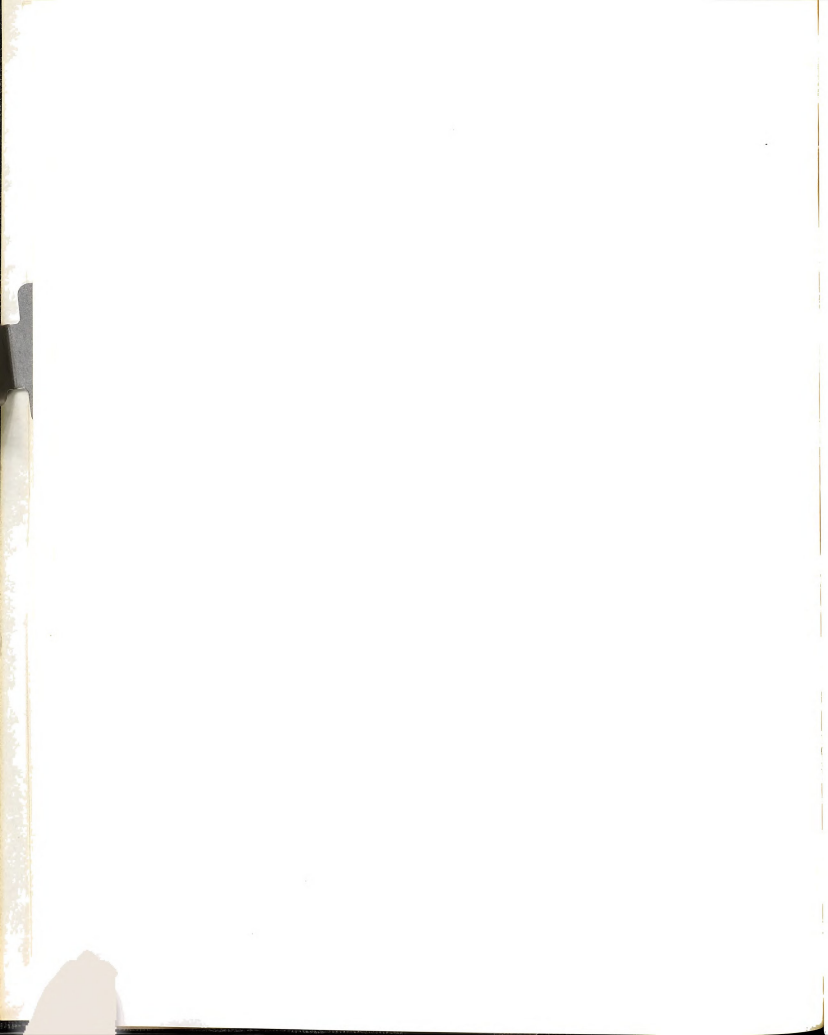


TABLE 2.3.--Review Process for Articles.

Reviewer	Interest	Rejection
Editor	Editorial policy Specialized audience Conclusions supported	27%
Consulting editor	(Same as above)	11%
Two consulting editors	Recommendations Weaknesses Comments	

to the consulting editors during this period were identified as being defective in some way. Those articles having minor defects were returned for revision while those with major defects were rejected. Table 2.4 presents the weaknesses observed and percentage of manuscripts falling in each category. Each manuscript may have more than one weakness. As is shown, the majority of correctable defects occurred in either the description of the procedures or in the data presentation and analysis. However, the majority of rejected manuscripts were found to be lacking in significance. Other common causes of rejection were lack of internal and/or external validity which resulted from logical design errors, sampling inadequacies, or sampling errors. Rejected manuscripts were frequently lacking also in clarity and style.<sup>27</sup>

<sup>27</sup>Richard L. Turner, "A Report from the Retiring Editor," American Educational Research Journal, X (Winter 1973), 1-3.

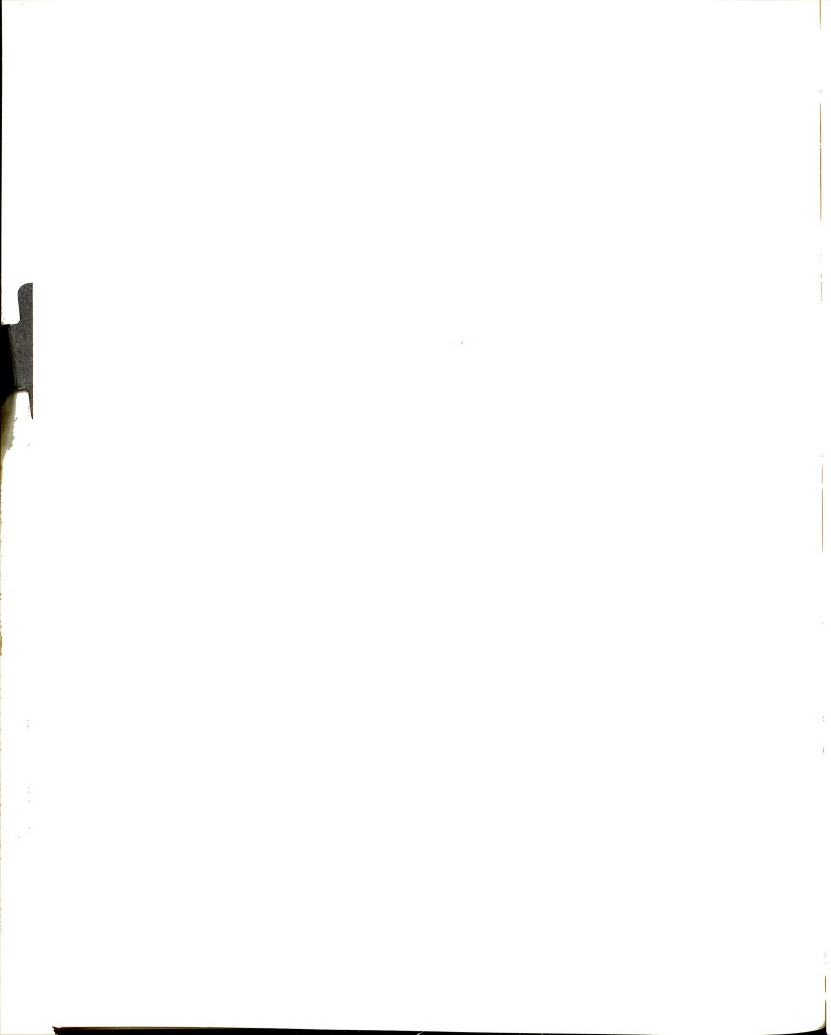


TABLE 2.4.--Weaknesses in Manuscripts Sent for Revision Versus Those Rejected.

Weakness	Sent for Revision (%)	Rejected (%)
Significance	8	54
Theoretical presentation	17	36
Literature continuity	3	25
Procedural description	24	35
External validity	16	30
Internal validity	5	20
Data analysis	20	37
Data presentation	26	34
Mechanics/grammar	7	17
Clarity	8	27

Swanson claims that one way of improving the quality of available publications would be to develop a means of insuring that a manuscript rejected by one journal would also be rejected by all other journals. A problem encountered, however, in the search for quality in journals is the necessary time lag.<sup>28</sup> Garvey and associates reported an average time lag of nine months for publications of social science manuscripts as compared to fifteen months for physical science manuscripts. In

<sup>28</sup> Don R. Swanson, "Scientific Journals and Information Services of the Future," American Psychologist, XXI (November 1966), 1005-1010; J. C. R. Licklider, "A Crux in Scientific and Technical Communications," American Psychologist, XXI (November 1966), 1044-1051.



the case of a manuscript that has been rejected at least once, an additional four months delay occurs for physical science manuscripts and eight months for social science manuscripts. Social science manuscripts are also six times more likely than physical science manuscripts to eventually be published even after repeated rejections.

Social scientists report that the selection of a particular journal for manuscript submission is dependent upon the audience involved and the editorial policy. Despite this consideration, almost one-fourth of the social science authors have experienced more than one rejection prior to publication while approximately one-sixth of those from whom revisions are requested do not resubmit their manuscript.<sup>29</sup>

Assuming that publication policies are developed so as to maximize the quality of the published articles, then it follows that the articles available to readers should be of the highest possible quality.

#### Adequacy of Research Reports

In an attempt to evaluate the quality of research reports some systematic procedure must be utilized. Numerous instruments have been developed with each designed for a particular type of research. The remainder of this

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<sup>29</sup>Garvey, op. cit.





chapter will be devoted to the presentation of four of these. Two instruments are presented because of their broad generality in any situation. However, precisely because of this generality they are not easily applied as evaluative instruments in an objective manner. An advantage of the Kohn and Suydam instruments over the many others available is the evaluation of the entire report that covers objectively the specific areas which are indicated by the broader instruments. These two instruments have eliminated the excessive options and redundancies found in many of the available instruments. In addition, they were frequently cited as the basis for other specific, extensive instruments.

Johnson proposed the following as a means for evaluating scientific research where "scientific" is used "to indicate the experimental or survey type research as distinguished from document research": (1) Problem--statement, is it clear? Significance, will results contribute to the solution of a problem? (2) Materials--quantity, are references adequate? Quality, are sources authoritative? (3) Subjects--quantity, is sample large enough? Quality, is sample adequate for the problem? (4) Method of procedure--suitability, are techniques appropriate? Arrangement, is the design adequate? Objectivity, is the solution objective? (5) Results--treatment of data,



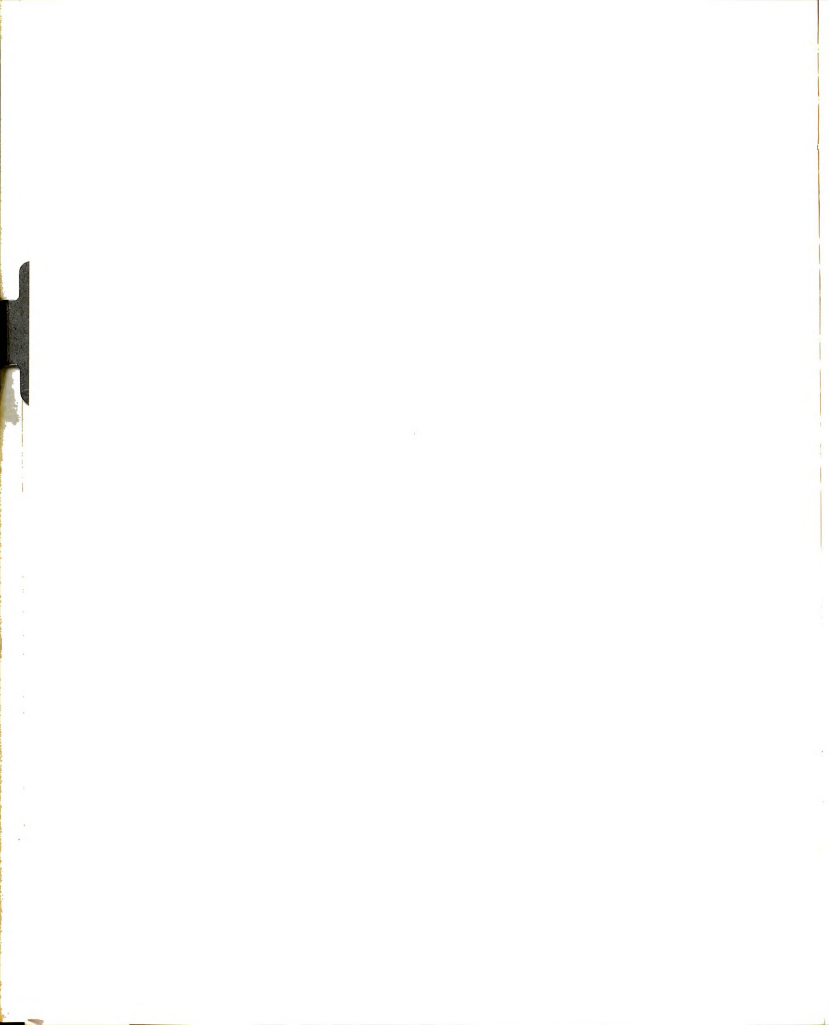
are the techniques proper and modern? and (6) Conclusions--logically derived, do they result from the data?<sup>30</sup>

Kohn, however, presented the following as a more appropriate method for the evaluation of survey research reports:

1. How practically or theoretically significant is the problem?
  - a. Purpose
  - b. Problem origin
    - (1) Rationale
    - (2) Previous research
  - c. Generalizability
2. How clearly defined is the survey problem?
  - a. Objectives and procedures
  - b. Delimitations
  - c. Variables
    - (1) Control
    - (2) Dependent
3. How relevant and how well defined is the population?
  - a. Precise definition of population
    - (1) Geographical limits
    - (2) Time period covered
    - (3) Sociological description
    - (4) Sampling units
  - b. Relevance of defined population to problem
4. How adequate are the sampling procedures?
  - a. Adequacy of sampling frame
    - (1) Time period covered
    - (2) Inclusion of defined population
  - b. Method of sampling
  - c. Obtained sample
    - (1) Size
    - (2) Representativeness
5. How adequately are sources of error controlled?
  - a. Sampling error
  - b. Non-response
  - c. Interviewer bias
  - d. Response error
  - e. Response set
  - f. Experimenter bias
  - g. Teacher effect

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<sup>30</sup> Granville B. Johnson, Jr., "A Method for Evaluating Research Articles in Education," Journal of Educational Research, LI (October 1957), 149-151.



- h. Control variables
- i. Extraneous factors
- j. Qualifications of research personnel (interviewers, coders, observers)
- 6. How adequate are the measuring instruments?
  - a. Choice of measurement technique(s)
  - b. Instrument(s)
    - (1) Development of instrument
    - (2) Description of administration and scoring procedures
    - (3) Wording of statements or questions
    - (4) Sequence of statements or questions
    - (5) Evidence of reliability
    - (6) Evidence of validity
  - c. Rules for categorizing
- 7. How appropriate is the statistical analysis of the data?
  - a. Procedures of data collection
  - b. Relation of obtained data to objectives.
  - c. Descriptive measures
    - (1) Statistic(s)
    - (2) Evaluation of descriptive data
    - (3) Establishment of relationships
  - d. Statistical tests
    - (1) Basic assumptions
    - (2) Relation to procedures
    - (3) Significance levels
  - e. Description of results
- 8. How reasonable are the conclusions drawn from the data?
  - a. Interpretations
  - b. Generalizations
  - c. Implications
  - d. Qualifications
    - (1) Discussion of methodological problems and errors
    - (2) Alternative explanations
    - (3) Other limitations
- 9. How adequately is the research reported?
  - a. Organization
  - b. Style
  - c. Grammar and mechanics
  - d. Completeness
  - e. Presentation of statistics<sup>31</sup>

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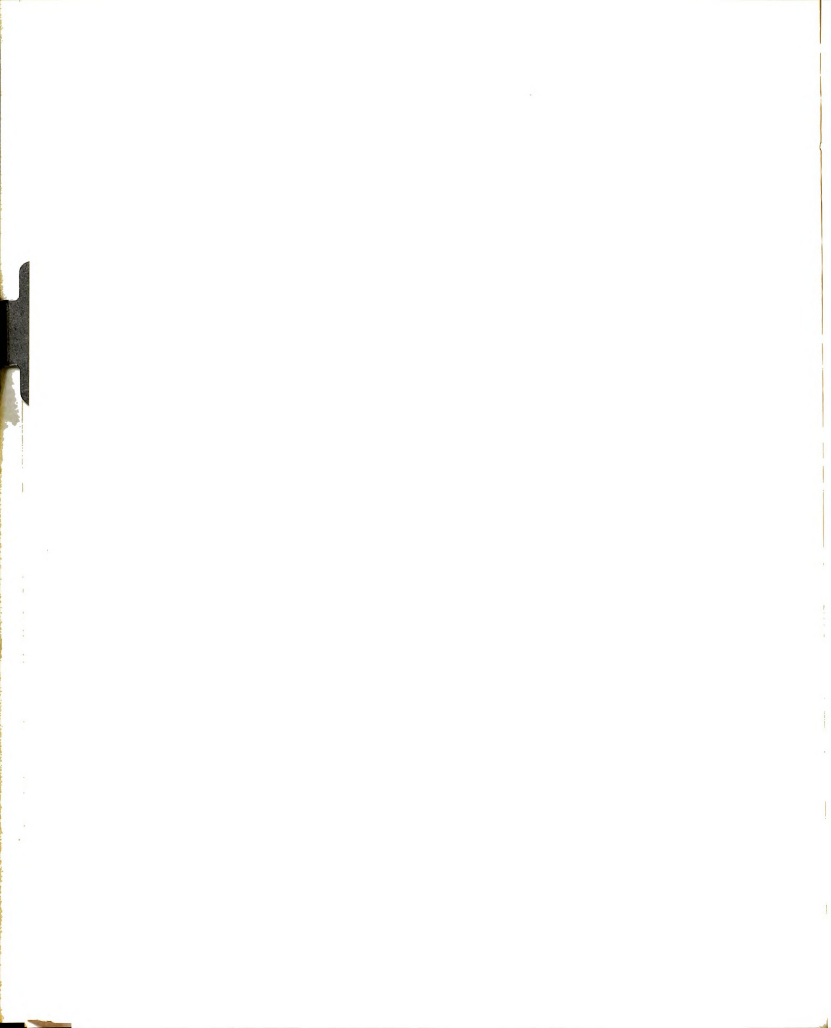
<sup>31</sup>Richard L. Kohn, "An Instrument for Evaluating Survey Research," Journal of Educational Research, LXIV (October 1970), 78-85.



Suydam presented a similar yet somewhat different instrument for use in the evaluation of experimental educational research reports:

1. How practically or theoretically significant is the problem?
  - a. Purpose
  - b. Problem origin
    - 1) Rationale
    - 2) Previous research
2. How clearly defined is the problem?
  - a. Question
  - b. Hypothesis(es)
  - c. Independent variable(s)
  - d. Dependent variable(s)
3. How well does the design answer the research question?
  - a. Paradigm
  - b. Hypothesis(es)
  - c. Procedures
  - d. Treatments
  - e. Duration
4. How adequately does the design control variables?
  - a. Independent variable(s)
  - b. Administration of treatment
  - c. Teacher or group factors
  - d. Subject or experimenter bias
  - e. Halo effect
  - f. Extraneous factors
  - g. Individual factors
5. How properly is the sample selected for the design and purpose of the research?
  - a. Population
  - b. Drawing of sample
  - c. Assignment of treatment
  - d. Size
  - e. Characteristics
6. How valid and reliable are the measuring instruments or observational techniques?
  - a. Instrument or technique
    - 1) Description
    - 2) Validity
    - 3) Reliability for population
  - b. Procedures of data collection
7. How valid are the techniques of analysis of data?
  - a. Statistical tests
    - 1) Basic assumptions
    - 2) Relation to design





- b. Data
  - 1) Treatment
  - 2) Presentation
  - 3) Level of significance
  - 4) Discussion
- 8. How appropriate are the interpretations and generalizations from the data?
  - a. Consistency with results
  - b. Generalizations
  - c. Implications
  - d. Limitations
- 9. How adequately is the research reported?
  - a. Organization
  - b. Style
  - c. Grammar
  - d. Completeness<sup>32</sup>

Although Fox's article appeared approximately ten years before either of the above articles, the common-sense criteria which he offered is an appropriate summary of the ideas presented by both Kohn and Suydam.

1. The purpose of the research, or the problem involved, should be clearly defined and sharply delineated in terms as unambiguous as possible.
2. The research procedures used should be described in sufficient detail to permit another researcher to repeat the research.
3. The procedural design of the research should be carefully planned to yield results that are as objective as possible.
4. The researcher should report, with complete frankness, flaws in the procedural design and estimate their effect upon the findings.
5. Analysis of the data should be sufficiently adequate to reveal its significance; and the methods of analysis used should be appropriate.
6. Conclusions should be confined to those justified by the data of the research and limited to those for which the data provides an adequate basis.

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<sup>32</sup> Marilyn N. Suydam, "An Instrument for Evaluating Experimental Educational Research Reports," Journal of Educational Research, LXI (January 1968), 200-203.



7. Greater confidence in the research is warranted if the researcher is experienced, has a good reputation in research, and is a person of integrity.<sup>33</sup>

### Summary

Since the original funding of educational research by the federal government, money has been injected into such research in increasing amounts. Funding by the federal government alone has increased from \$1 million to \$19 billion over the last fifteen years. For this increase in expenditures for educational research, an equivalent increase in knowledge and advancement in educational techniques was expected.

In order that the resulting research information be assimilated into a useful foundation of knowledge, it must be disseminated to other researchers. In order that research be applied in practical situations it must be disseminated to teachers and other practitioners. The most frequently used mode of widespread communication among the educational community is the professional journal. Therefore, the professional journal in education has a difficult role to fulfill. It must, of necessity, caused by the unique position it occupies between researcher and practitioner, act as the gatekeeper of information disseminated to the total continuum of needs. The type of

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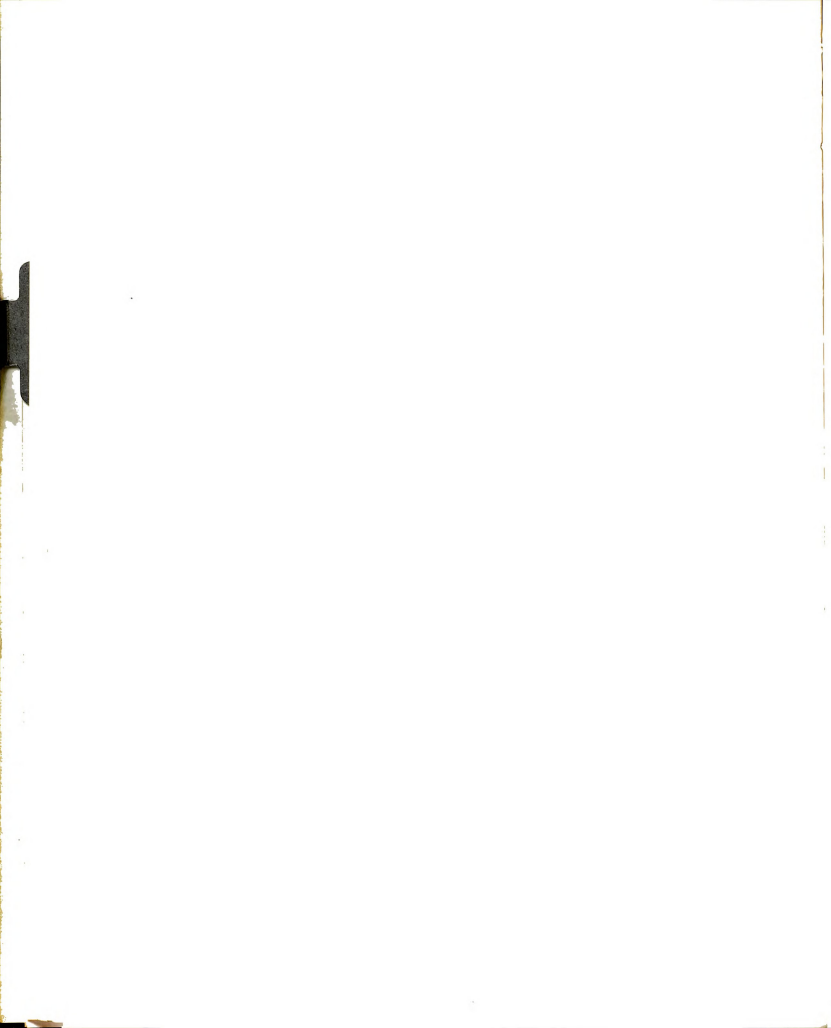
<sup>33</sup>James Harold Fox, "Criteria of Good Research," Phi Delta Kappan, XXXIX (October 1958), 284-286.



research reports that it accepts or rejects for publication influences not only what areas are applied and expanded upon, but also the impressions of the quality of the research carried out, and hence its applicability.

It has been shown that a major factor in the usefulness of research reports is the level of the user, or in the case of the professional journal, the readership. Researchers whose interests are primarily theoretical tend to more often use professional journals, both as a means of communicating their ideas to others and as a means of keeping abreast of new developments. On the other hand, those whose interests are strictly application tend not to use the professional journal as a tool either for information dissemination or for increasing knowledge as they often feel their interests are sufficiently limited as to be of little interest to others.

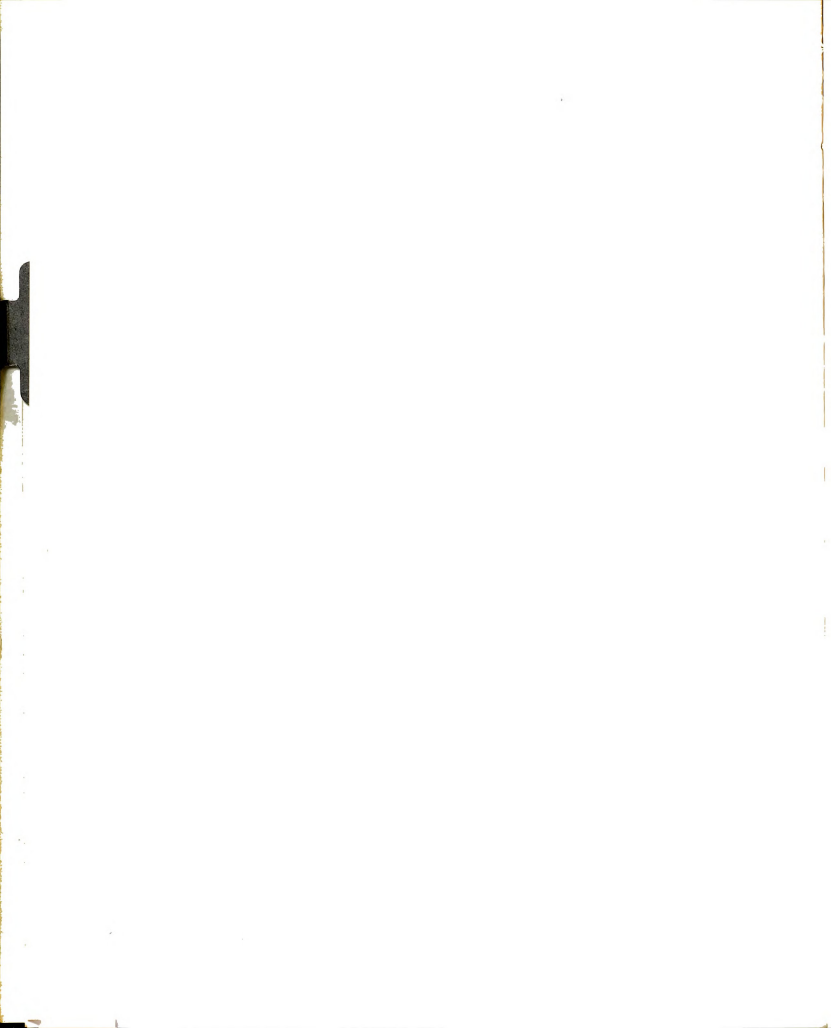
Another primary factor in the usefulness of research reports to the reader is his own educational level. Those readers at the highest levels such as the holders of doctorates gain more from and use more from the reported research. On the other hand, those types of readers who primarily had lesser degrees, such as teachers, who are required only to have a bachelor's degree, do not understand or have difficulty in understanding the research process and the implications for their own situations from reports of research.



Publication policies of the professional journals have a strong influence on the quantity and quality of published research. Although great demand is made for tighter controls on the quality of the published reports, it must be realized that to improve quality more time and effort would be required both on the parts of the journal staff and the researcher, leading to a longer time lag than presently exists. The journal staff would need to apply more stringent evaluative techniques than presently employed, as well as more carefully evaluate the relevance to their intended readership, a characteristic that researchers claim greatly influences their choice of journals for the first submission of a manuscript. However, under more stringent controls, researchers also would be forced to devote more effort to the preparation of their research reports. It appears that at present, if a manuscript is rejected or returned with a request for revisions, rather than making revisions and resubmitting the manuscript to the original journal, the researcher merely resubmits the manuscript in the original form to a journal less stringent in its acceptance policies.

How to judge the quality or adequacy of research reports is a question which has been raised often. As a result many instruments have been developed for this purpose ranging from the very subjective to the very objective. All, however, cover the same basic areas: problem





statement, population and sampling, methodology, analysis techniques and methods of reporting, and conclusions and interpretation. Thus, these considerations are apparently seen as essential to the evaluation of reports of research regardless of the specificity of the instrument used for evaluation and the report itself.

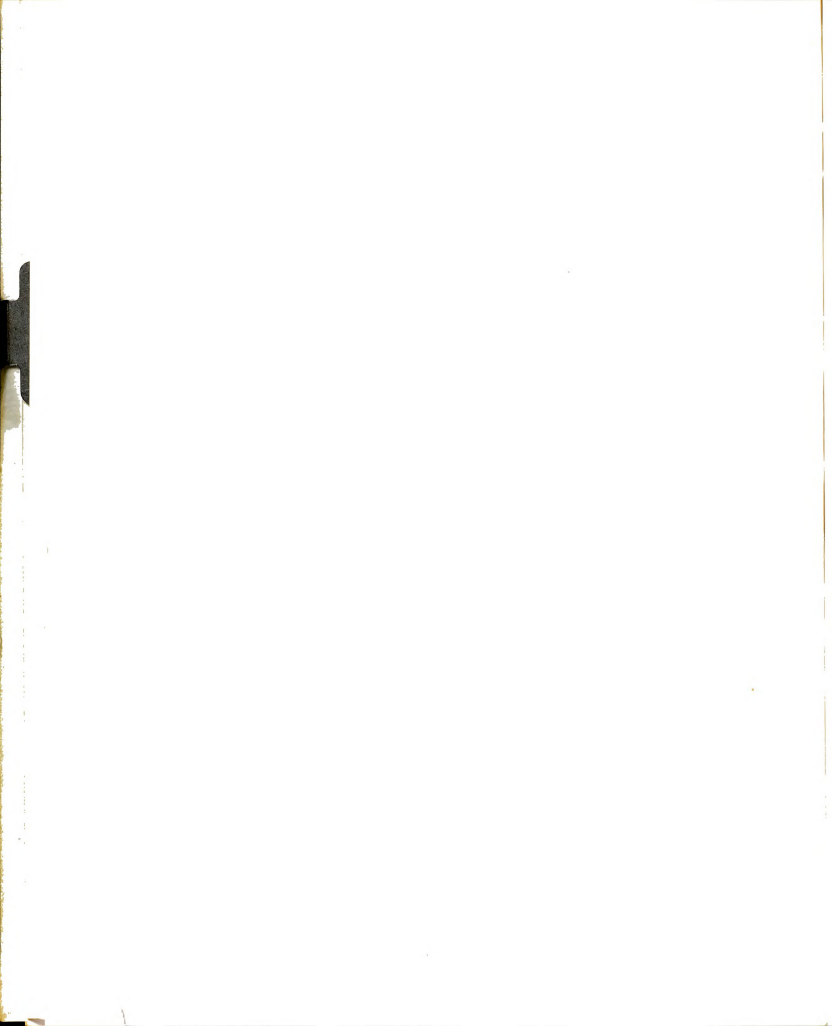
### Overview

This chapter has presented a review of the literature relevant to the topic developed in five sections. The first dealt with the increased funding of educational research over the last two decades and the expectations from such expenditures. The second section dealt with the role of professional journals with regard to information dissemination. The third section dealt with the needs of various types of readers and the level of information desired. The fourth section dealt with publication policies of professional journals and the influence these policies have on the quality of published research reports as well as its currentness. The final section dealt with various instruments intended to aid in the evaluation of reports of research.

The third chapter will explain the sampling procedures utilized, the methodology employed in data collection, and the statistical methodology employed. Chapter IV will contain the results of the data analysis and Chapter V



will present conclusions reached from these results as well as recommendations for further study.



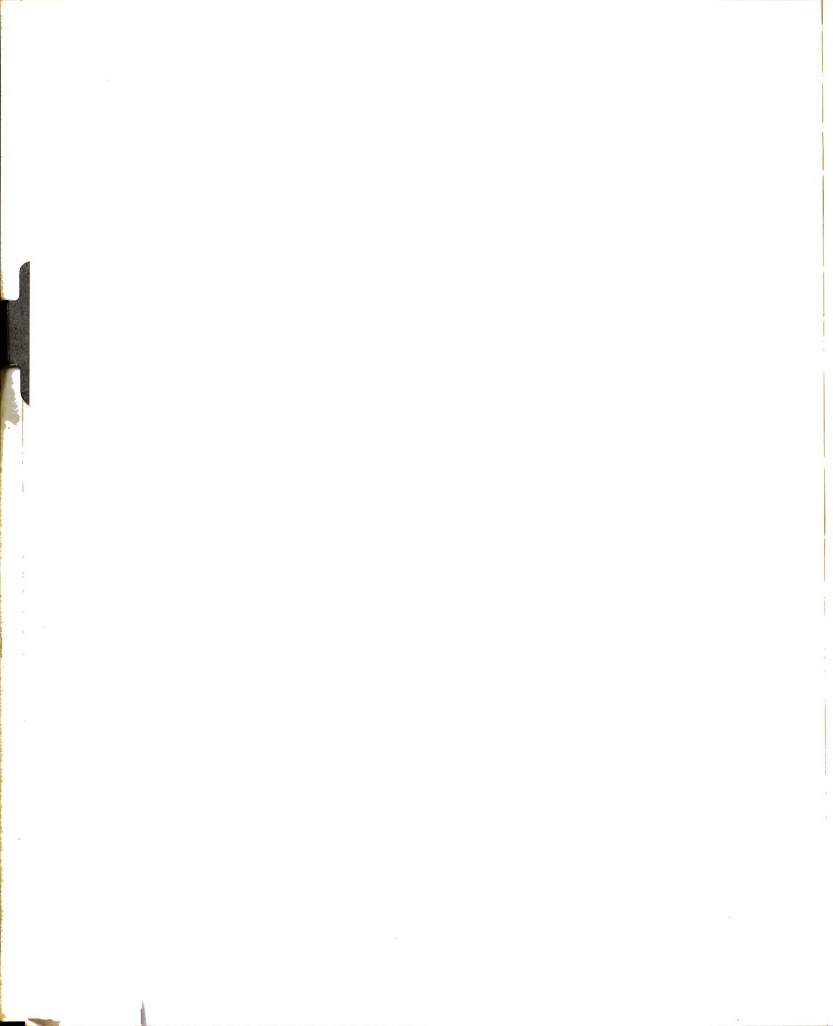
### CHAPTER III

#### DESIGN OF THE STUDY

In this chapter are described the target population, the sample and sampling procedure used, the data collection methodology, and the statistical methodology employed in this study.

##### Population and Sample

The population of interest included the group of professional journals that deal totally with education and that are published in the United States, excluding those that deal primarily with the education of persons with handicaps, either mental or physical. The sampling frame used for the selection of journals included in the investigation was twofold. Initially, the journals selected were required to be referenced completely in the Current Index to Journals in Education, Vol. 3, 1971. This reference was chosen because it provided the most complete listing of professional journals in education which are distributed nationwide. Secondly, those journals fulfilling the initial criterion also had to be received at least twice a year by the Michigan State University Library, with that library having available all issues published



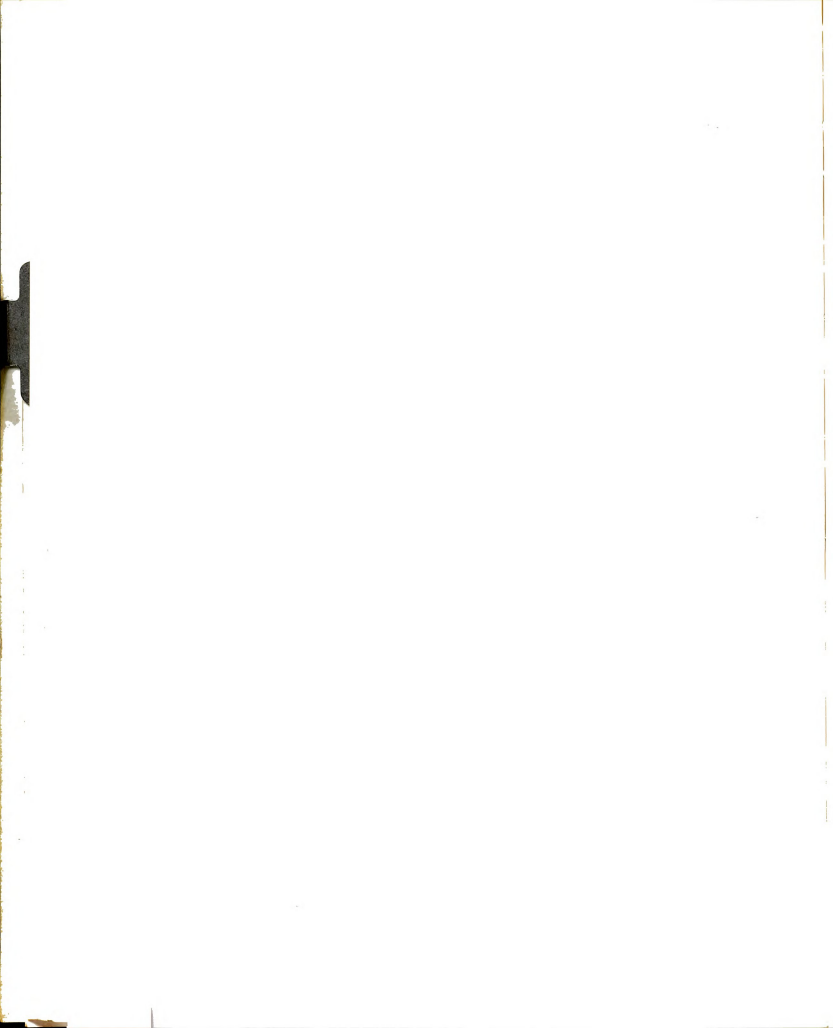
between and including January 1, 1970, and December 31, 1972. This library was chosen as the source of professional journals because of its location and therefore availability to the author of this study. It was also chosen because it was found to contain better than 95 percent of those journals included in the population of interest.

The list of journals meeting the above two criteria was then stratified on the basis of the number of issues published per year. Two strata were formed, with the first including those journals published six or less times per year and the other, those published seven or more times per year.

This method was utilized in order to improve the precision of coverage of type of article and intended readership. It was assumed that those journals published more often would do so primarily in order to correspond with the normal functioning school year, while those published less frequently would basically be concerned with providing more basic research reports.

The journals falling into each of the two strata were ordered according to the average circulation per issue as provided in Ulich's Dictionary of Periodicals, 1971-1972. Those journals whose average circulation per issue were the same were alphabetically ordered according to the title of the journal. Those journals not having a





circulation listed were placed in alphabetical order at the end of the stratum to which they belonged.

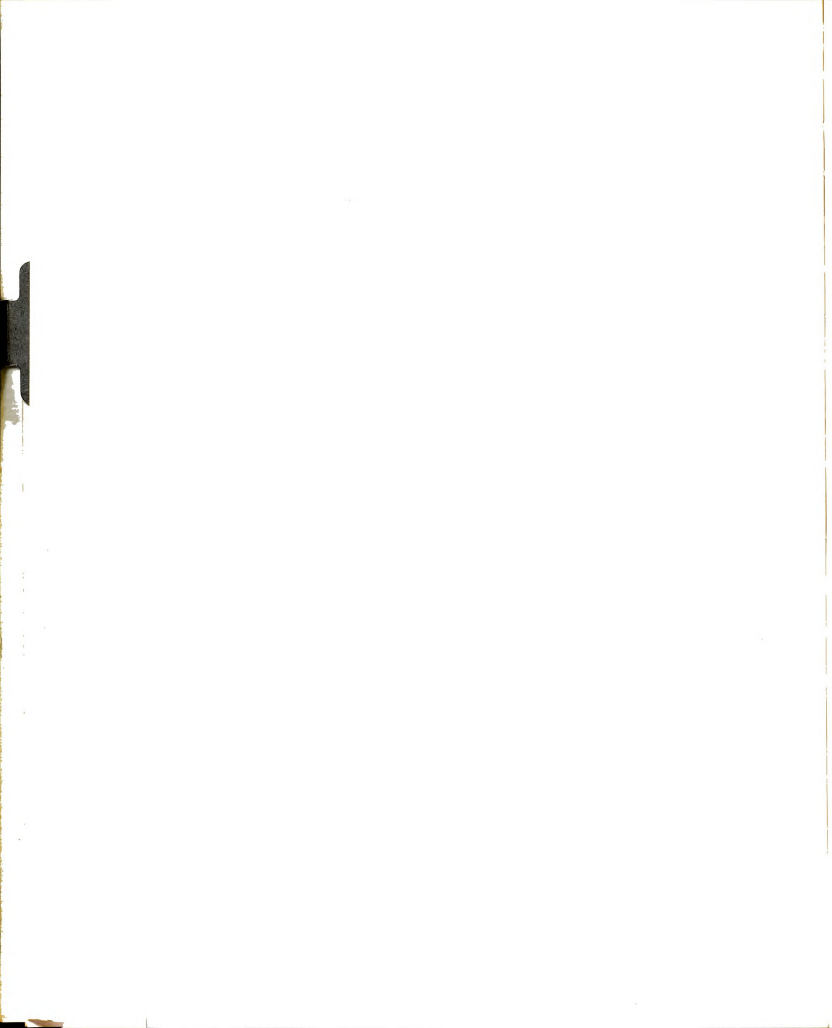
Proportional allocation was used to determine the number of journals to be selected from each stratum. The list was sampled systematically with a random start and an interval chosen that would yield a sampling fraction of 1/3. Table 3.1 indicates the distribution of both sample and population according to stratum.

TABLE 3.1.--The Distribution of Population and Sample According to Stratum.

Stratum	Population	Sample	Percentage
I (2-6 issues per year)	66	22	.33
II (7-12 issues per year)	45	15	.33

A sampling fraction of 1/3 was chosen as it was sufficiently large enough to detect any characteristic occurring in at least 10 percent of the population, even after the loss of subjects through the non-response of the editors to the mailed questionnaire. The required sample size for this level of detection with a .05 standard error is defined as slightly more than 20 percent according to the following formula:

$$n' = \frac{\sum_h W_h P_h (1 - P_h)}{(.05)^2} \text{ so that } n = \frac{n'}{1 + n'/N}$$



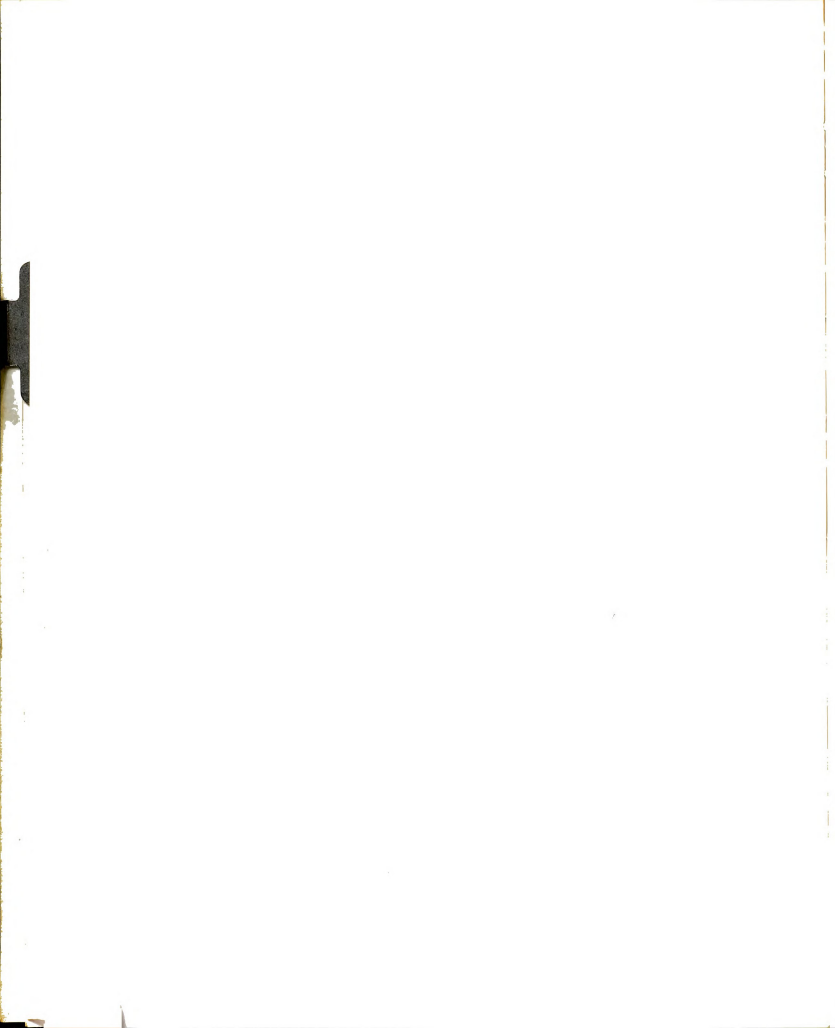
where  $W_h$  is the weight of the stratum in the population,  
 $P_h$  is the proportion to be detected within the  
stratum,  
 $N$  is the number in the population, and  
 $n$  is the number to be sampled.

For each journal chosen, a number of issues equal to the number of issues published by that journal per year was randomly selected from the three-year period of interest. Within the selected issues 50 percent of the articles were analyzed according to the specified criteria.

In addition, three articles were selected randomly from the research articles under consideration for a further analysis in order to determine the quality and completeness of research published in the journals. In the event that there were fewer than four research reports available among the articles analyzed for a particular journal, all of the research reports were included in the additional analysis. (Appendix E contains the list of sampled journals.)

#### Data Collection and Instrumentation

A questionnaire was developed and sent to the editor of each journal sampled. This first questionnaire and cover letter were mailed during the late spring. The questionnaire contained items asking for both personal opinion and for specific information. Both objective and open-ended items were utilized. The editor was instructed



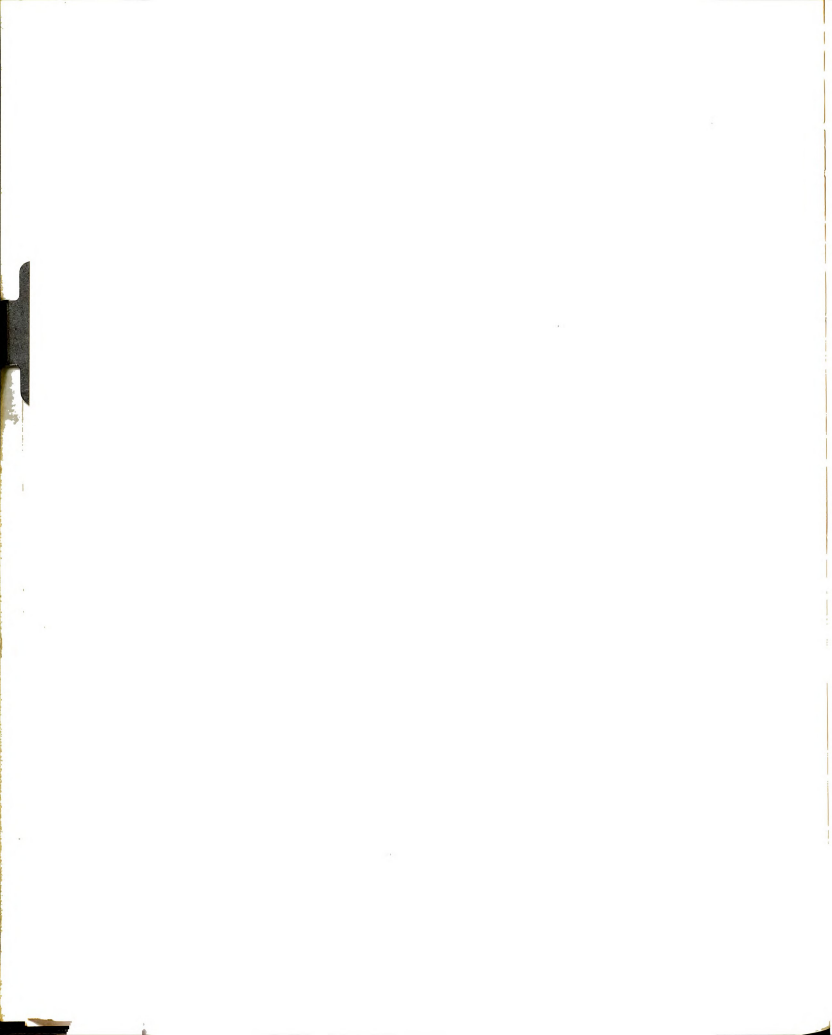
that available materials could be substituted as responses to several of the items. Appendix A contains a copy of the questionnaire.

A letter of transmittal accompanied the questionnaire explaining the importance of the study and requesting cooperation. Appendix D contains a copy of this letter.

A checklist was developed for use with the journal articles investigated. It was developed to include those variables found to be most relevant in past research. The final instrument was a result of the inclusion of those variables found to be of major importance and consultation with experts regarding other possible options and variables. The checklist included several options concerning each of the characteristics of interest in the journal articles, as well as space for the addition of unclassifiable or unexpected information. Appendix B contains a copy of this instrument.

An additional checklist was developed for use in assessing the adequacy of the research report articles. Appendix C contains a copy of this checklist.

In order to minimize a major source of error in the study, the non-response of editors, a follow-up letter and copy of the questionnaire were mailed to those editors not having yet responded two weeks after the original contact. The accompanying transmittal letter again explained the importance of the study and further urged



cooperation. Appendix D contains a copy of both this letter and the original. No further follow-up was attempted as only 25 responses were required for the accuracy desired as defined earlier in this chapter, and to assume no non-response bias.

Data for this study were obtained from three sources: the responses of the editors of the selected journals to the mailed questionnaire, Ulich's Dictionary of Periodicals, 1971-1972, and from the issues and articles within the selected journals.

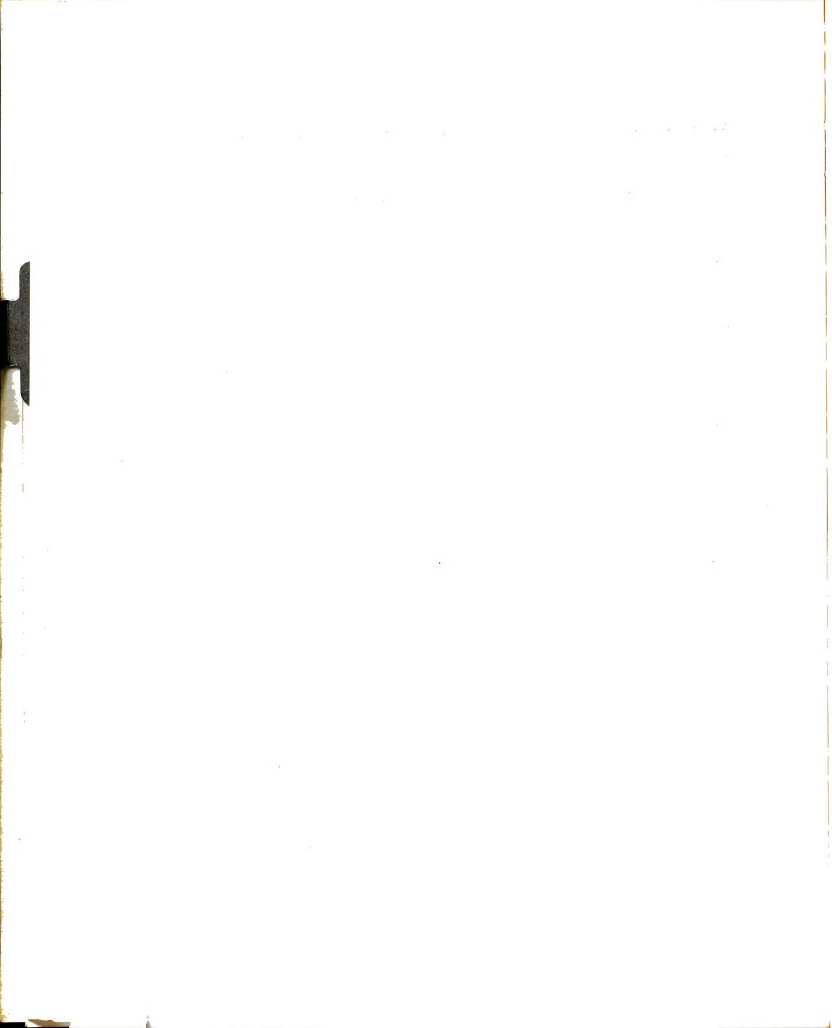
The number of issues published per year was obtained from Ulich's Dictionary of Periodicals, 1971-1972, prior to sampling.

Data collected through the use of the mailed questionnaires to the editors of the selected journals included availability, publication policies, intended readership, number of years of publication, perceived readership, and the 1972 average monthly circulation.

Data collected directly from the journals included the adequacy of research reports, average number of articles per issue, methodology utilized in research, topics covered, and type of article.

Intended readership was assessed by asking the editors what percent of the articles published in the particular journal are intended primarily for the following categories of people: theoretical or applied researchers, college or university educators whose primary

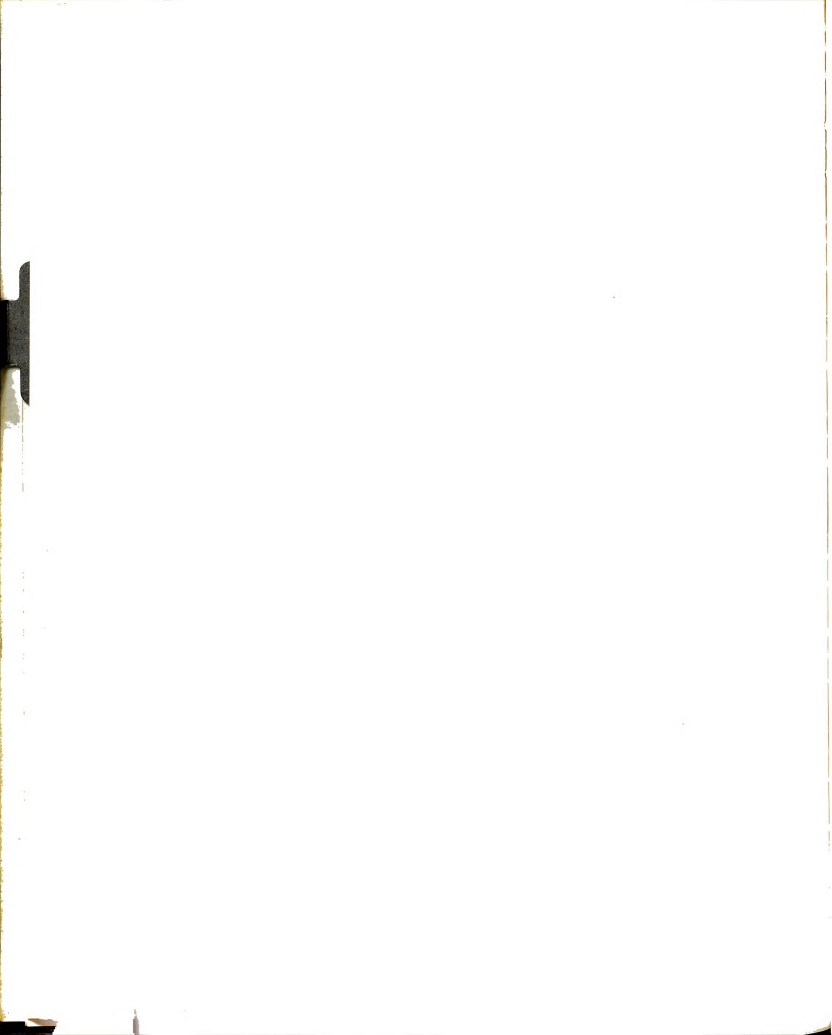




interest is in teaching, school or university administrators, school or university counselors, elementary or secondary teachers, or others. The percentages given were then used as weights to indicate the relative importance of each type of reader. Although the questionnaire requested percentages, the numbers were not required to add to 100, thereby eliminating any interdependence between the groupings other than would occur as a natural result from interest or non-interest in a particular type of reader. In the event that a range was given, the midpoint was used. The weights were also used to indicate the primary intended readership by designating the category assigned the highest weight as the primary intended readership for each journal. In the case of tied highest weightings, one category was randomly selected as the primary one.

Availability was classified into one of the following categories reported by the editor as being most descriptive of the way in which the journal is regularly distributed:

1. Accompanies membership in a parent organization--membership by recommendation only,
2. Accompanies membership in a parent organization--membership solicited,
3. Accompanies membership in a parent organization or available on request to non-members,
4. Subscriptions available on request,



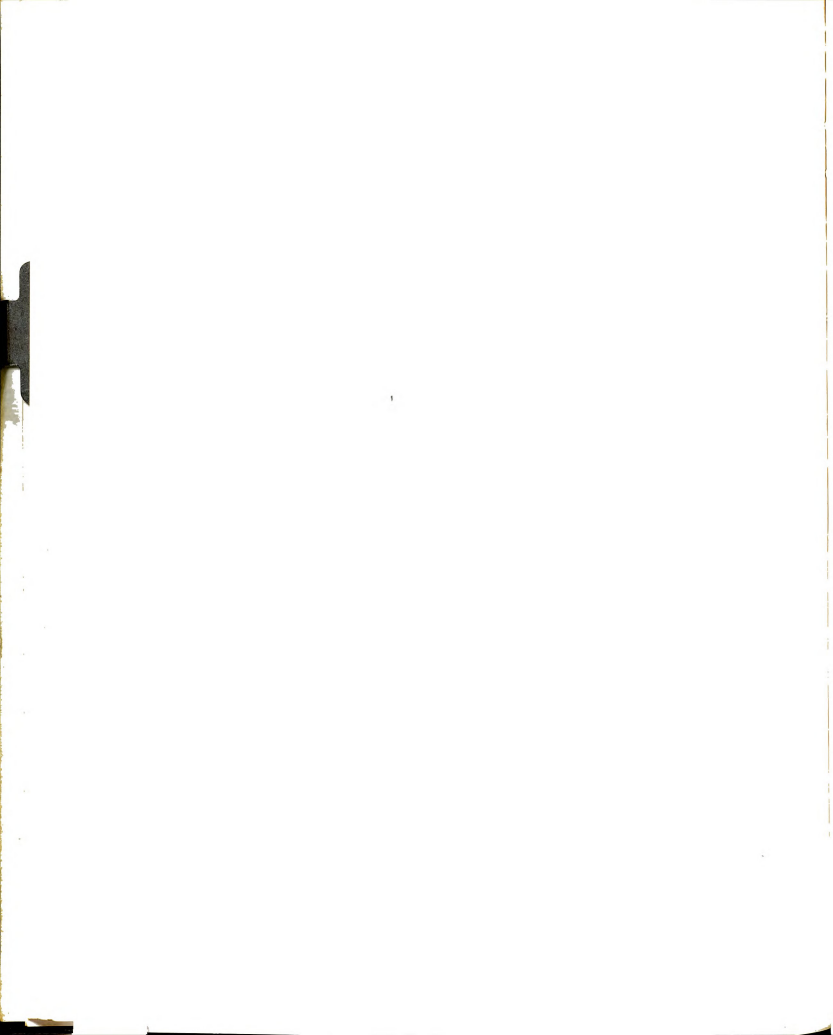
5. "Over-the-counter" sales and any of the above.

The number of years of publication was determined by subtracting the date reported by the editor as the first year of publication from 1974.

The average monthly circulation was used as provided by the editors.

Adequacy of research reports was judged from the answers to the following questions as appropriate:

1. Problem
  - Was the problem of concern clearly stated?
  - Was the hypothesis or question of interest logically constructed from some theoretical basis?
  - Was the procedure used to attack the problem clearly and completely described?
2. Sample
  - Was the population of interest adequately described?
  - Was the sample selection method adequate?
  - Were possible sampling biases pointed out?
  - If a non-random sample was used, was it adequately described?
  - If a survey, was the response rate reported?
3. Analysis
  - Were appropriate statistical techniques used to analyze the data?
  - Was the design adequate for the scope of the data?
  - Were the results clearly presented?
  - If a survey, was an attempt made to analyze non-response?
4. Control of error
  - Were probable sources of error identified?
  - Were these sources of error controlled as efficiently as feasible?
  - Was an adequate control group used when appropriate?
  - Was lost data accounted for?



## 5. Conclusions

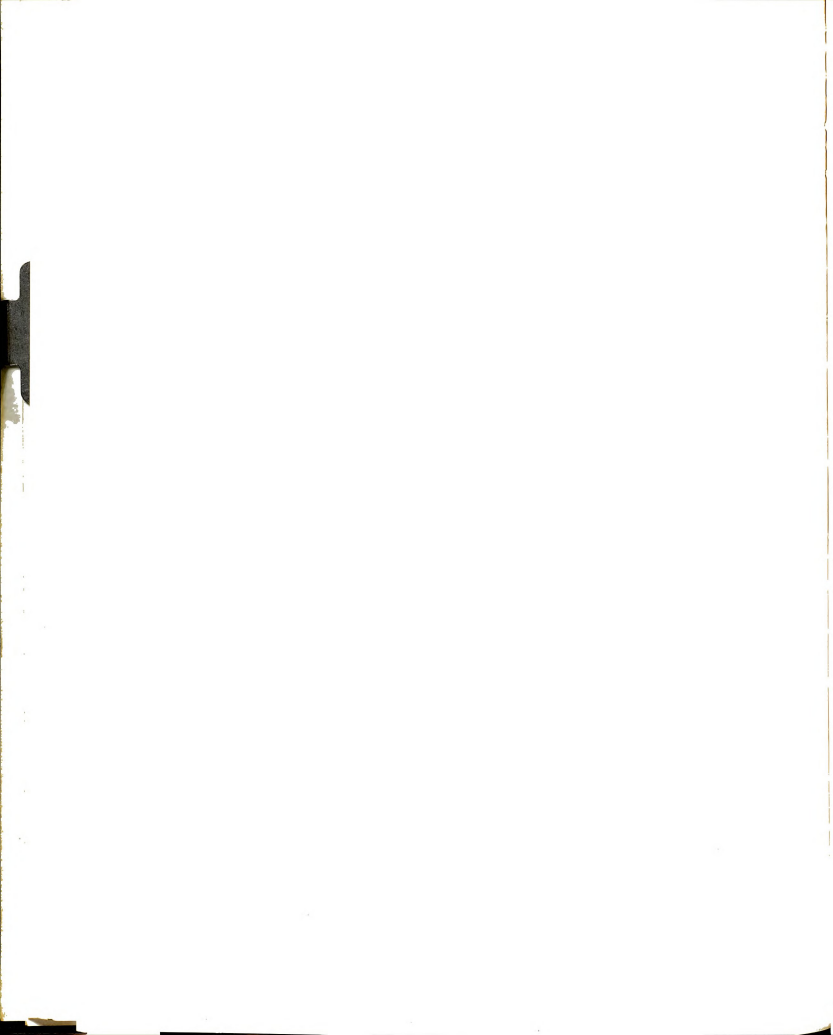
- Were the conclusions presented clearly?
- Were the conclusions supported by the data?
- Was the researcher able to refrain from overgeneralizing his findings?<sup>1</sup>

The articles investigated were rated from 1 to 5, according to the number of affirmative answers assigned in each of the five sections as compared to the number of appropriate questions. The points received for each of the five sections were then added to obtain an overall adequacy rating per article. The research ratings then were added to yield a single rating for the journal. In the event that only two articles were so rated, the mean rating was added to the two ratings made in order to obtain a comparable total. If only one article was rated, that score was multiplied by three to make a comparable overall rating.

The average number of articles per issue was rounded to the nearest whole number for all purposes of this study.

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<sup>1</sup>Modified from the considerations provided in Irvin J. Lehmann and William A. Mehrens, eds., Educational Research: Readings in Focus (New York: Holt, Rinehart, and Winston, Inc., 1971), p. 10, with additional considerations from the instruments suggested by Marilyn N. Suydam, "An Instrument for Evaluating Experimental Education Research Reports," The Journal of Educational Research, LXI (Jan. 1968), 200-203, and Richard L. Kohr and Marilyn N. Suydam, "An Instrument for Evaluating Survey Research," The Journal of Education Research, LXIV (Oct. 1970), 78-85.



Each research report was further investigated to determine procedures used and the statistics reported with more than one possible per article. Table 3.2 indicates the procedure categories that were used, and Table 3.3 indicates the statistical categories that were reported.

TABLE 3.2.--Categorical Procedures Used in Research Reports.

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Mailed questionnaires	Available records
Interview	Experimental design
Observation	Other
Standardized tests	

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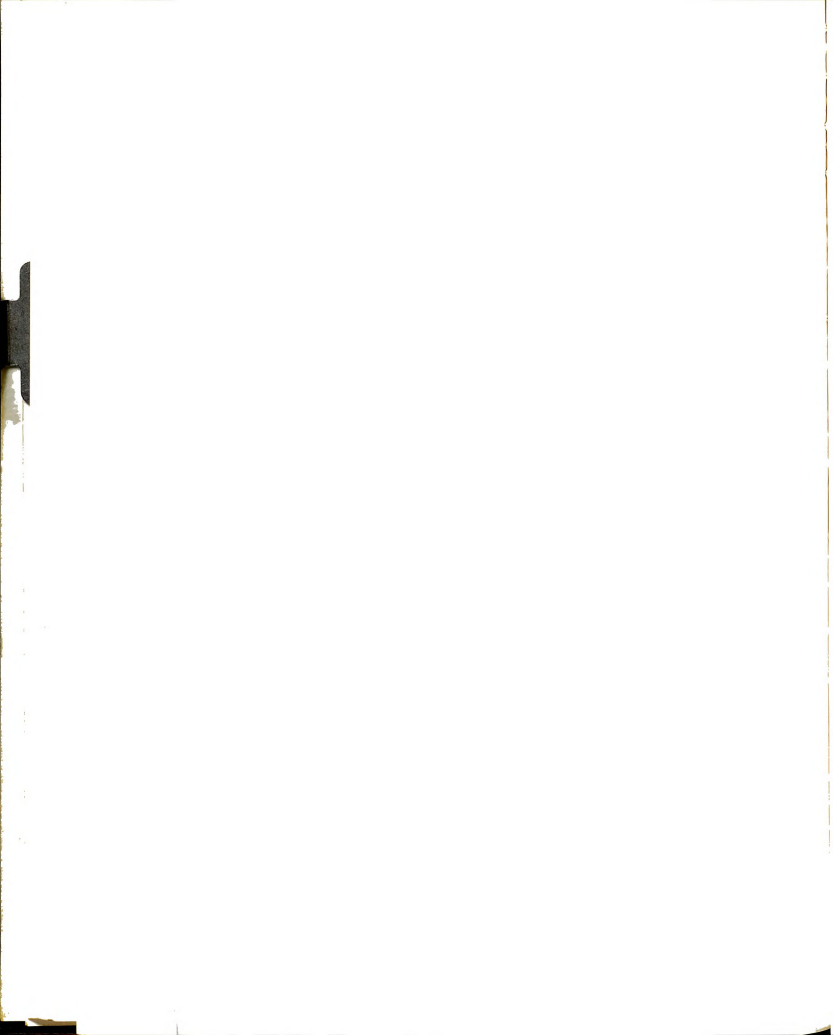
TABLE 3.3.--Categorical Statistics Reported in Research Reports.

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Raw
Percentages
Mean
Standard deviation
Other descriptive
Pearson's correlation coefficient
Other correlation coefficients
T-test
Analysis of variance including multivariate
Analysis of covariance including multivariate
Post hoc comparisons
Factor
Other analytic
Chi square
Other non-parametric
Reliability
None

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Each procedure and statistic category was used as described for the broad topics above. When a category contained less than three percent of the total number of elements recorded for that area, they were combined with the most similar category or with the "other" category, whichever seemed most appropriate. Unlike topic, where each article could belong to only one category, procedures and statistics often had multiple representations per article. The final weightings for each procedure and statistic reported, like topic, are comparable both across journals and across procedures or statistics, respectively, indicating their relative frequency within any journal.

Each article was described by a general topic. Topics were determined through an examination of the article's content. These topics were then grouped as closely as possible into broader overall general topics. This regrouping continued until all groups contained at least three percent of the total number of articles investigated. The number of articles within each journal falling under each broad topic then was divided by the number of issues investigated. The result was then multiplied by 10 and rounded off to the nearest whole number. In this way, a relative weight was devised which was comparable both across journals and across topics, indicating the frequency of occurrence of each topic within any journal. Table 3.4 indicates those topics which resulted from the above mentioned groupings.

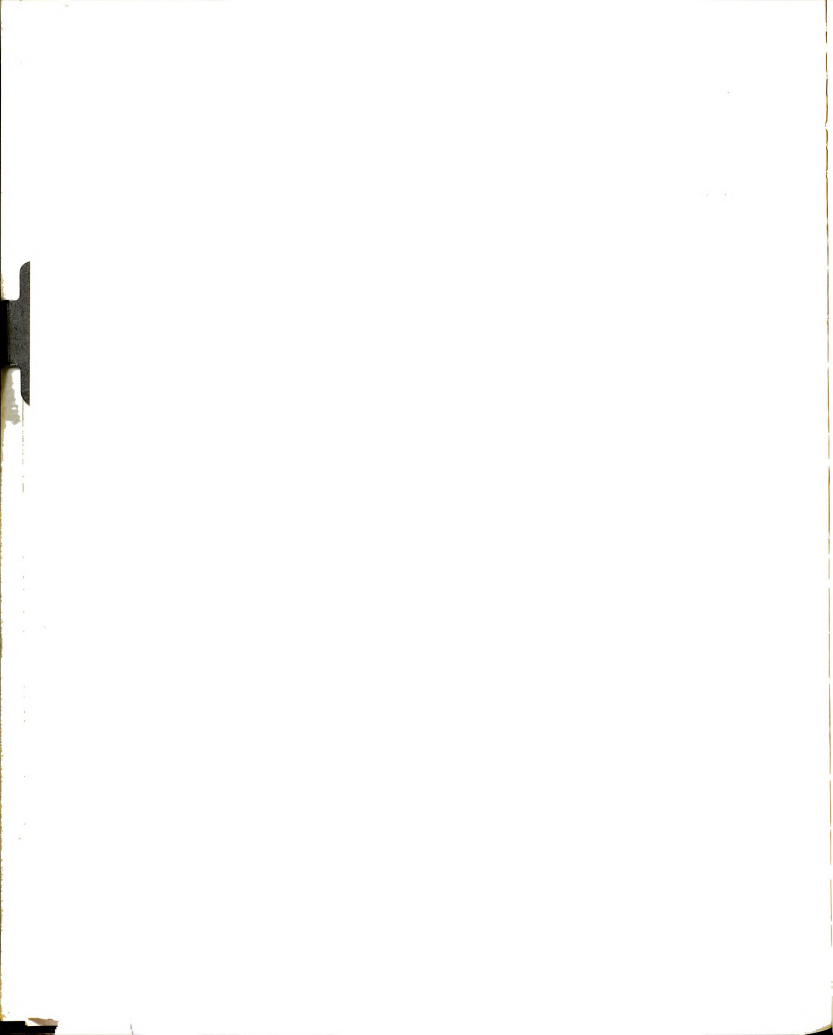


TABLE 3.4.--Set of Topics Included in Analysis.

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Research methodologies	Learning and development
Teacher education	Counseling methodologies
Cultural influence	Teaching--affective
Business and finance	Teaching--cognitive
Philosophy	Administrative
Legal areas	College curriculum
Review	Public school curriculum
Tangible materials	Faculty role
Personnel	Miscellaneous

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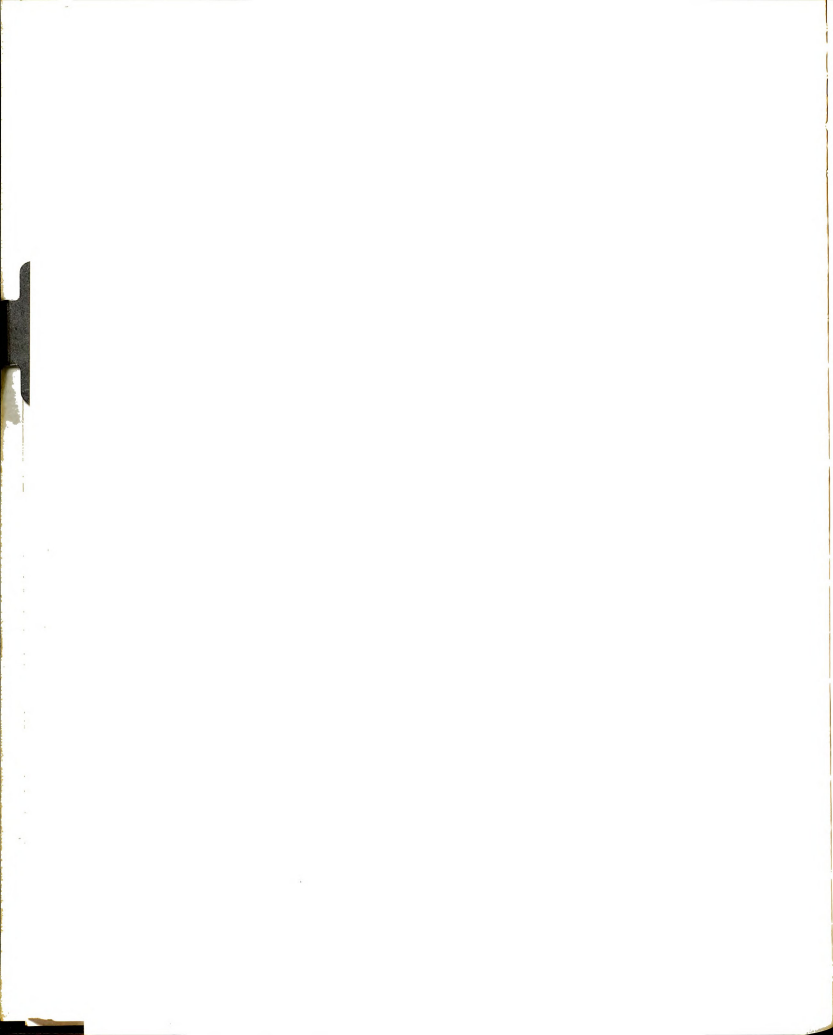
The type of article was treated in the same manner as the resulting broad topics described above, utilizing the following categories: (1) research report, (2) review of literature, and (3) expository article.

In regard to all other variables of interest, the values utilized in the analyses were equivalent to those directly derived from the sources of information.

#### Design

The questionnaire that had been developed was mailed to editors of the sampled professional journals in education with a cover letter providing an explanation regarding the purpose of the study and seeking to secure the editor's cooperation.

The response rate at the end of a two-week period was 55 percent for stratum I and 40 percent for stratum II with an average of 49 percent. In order to elicit further response, another copy of the questionnaire and another cover letter, which again urged cooperation and emphasized



the importance of each response, was mailed approximately two weeks after the first had been sent.

A total response rate of 76 percent was obtained including 73 percent for stratum I and 80 percent for stratum II. Table 3.5 presents the distribution of responses from each of the mailings.

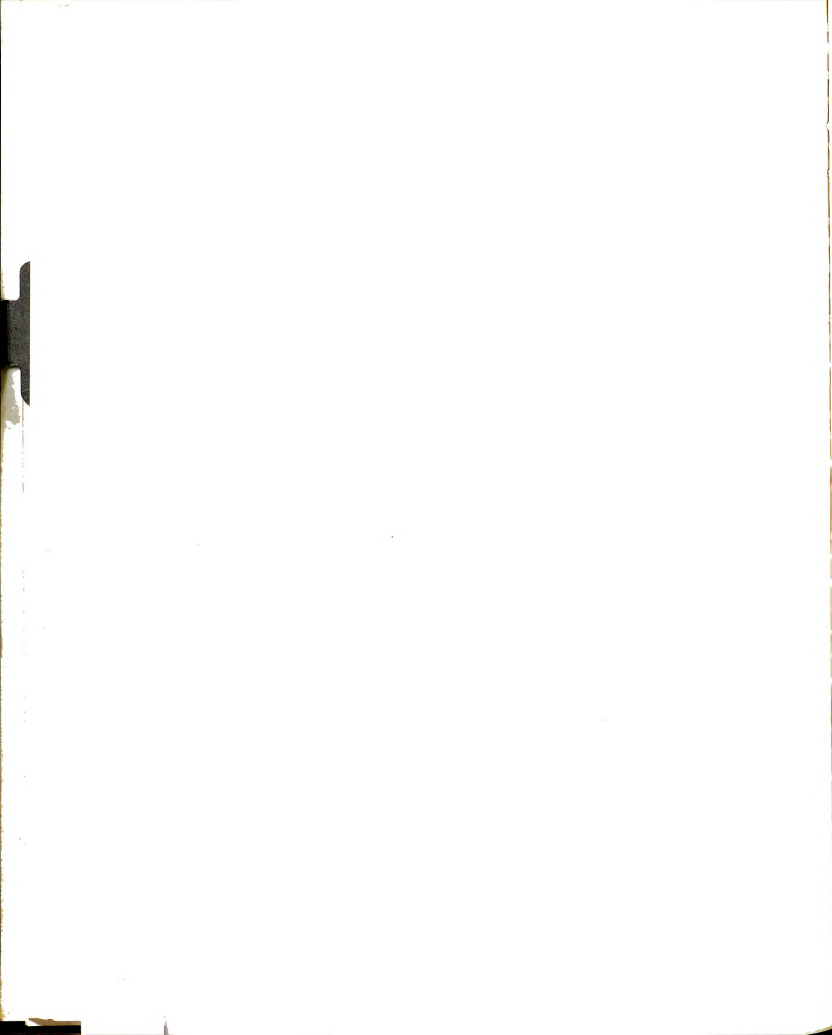
One editor in each stratum refused to respond, claiming that too many demands were already made of his time. Table 3.6 indicates the overall distribution of respondents and non-respondents.

TABLE 3.5.--Distribution of Responses by Editors From Original and Follow-Up Letters.

Stratum	Total Sample	First Response	Percent First Response	Follow-Up Response	Percent Total Response
I	22	12	.55	4	.73
II	15	6	.40	6	.80
Total	37	18	.49	10	.76

TABLE 3.6.--Distribution of Response and Non-Response of Journal Editors to Questionnaire.

Stratum	Sample	Respondents	Percent Response	Refused	Non-Response	Percent Not in Study
I	22	16	.73	1	5	.27
II	15	12	.80	1	2	.20
Total	37	28	.76	2	7	.24



The next phase of the study involved the selection and reading of articles from those journals whose editors had responded.

It was necessary first to select a number of issues equal to one year's publication from the total number of issues published between and including January 1, 1970, and December 31, 1972. The selection process for issues employed simple random sampling.

Articles had to be then chosen as only 50 percent of the articles in the sampled issues were to be read. This process was accomplished through a simple random sampling procedure.

The research articles in the entire number of issues read were then resampled utilizing simple random sampling to select three articles, when available, for further analysis.

These research articles were then read and the checklist for research reports completed for each article. Table 3.7 indicates the distribution of sampled articles including research reports in each of the strata and total.

A one-tenth random sample of those research articles subjected to further adequacy analysis were selected for re-rating by a disinterested person. A correlation coefficient of .893 indicates a high level of agreement on the rating of the adequacy of research articles.



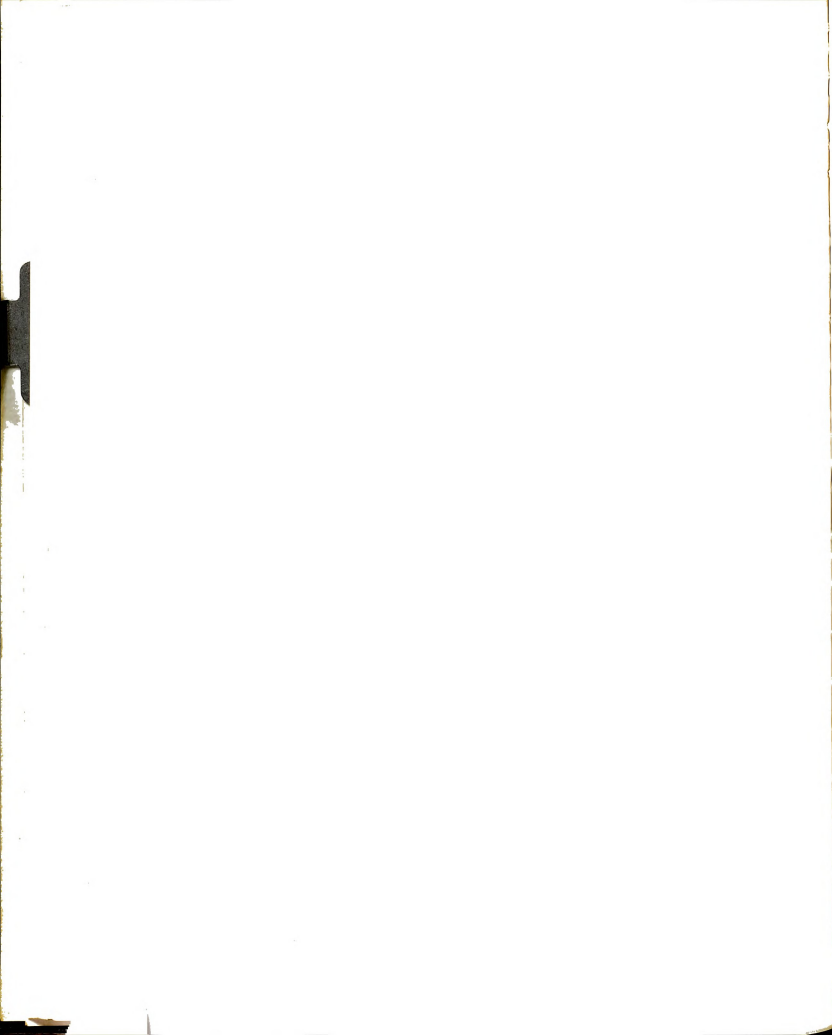


TABLE 3.7.--Distribution of Sampled Articles in Stratum I, Stratum II, and Total Response.

	Research	Review of Literature	Exposition	Total
<u>Stratum I</u>	189	7	215	411
Percent of total number of articles	17.3	.6	19.7	37.6
<u>Stratum II</u>	85	27	569	681
Percent of total number of articles	7.8	2.5	52.1	62.4
<u>Total</u>	274	34	784	1,092
Percent of total number of articles	25.1	3.1	71.8	100.0

#### Analysis Methodology

In order to answer the primary questions for which this study was intended, canonical correlation analyses were employed. This technique was utilized for the following questions:

Is there a relationship between intended readership and adequacy of research reports?

Is there a relationship between type of article and intended readership?

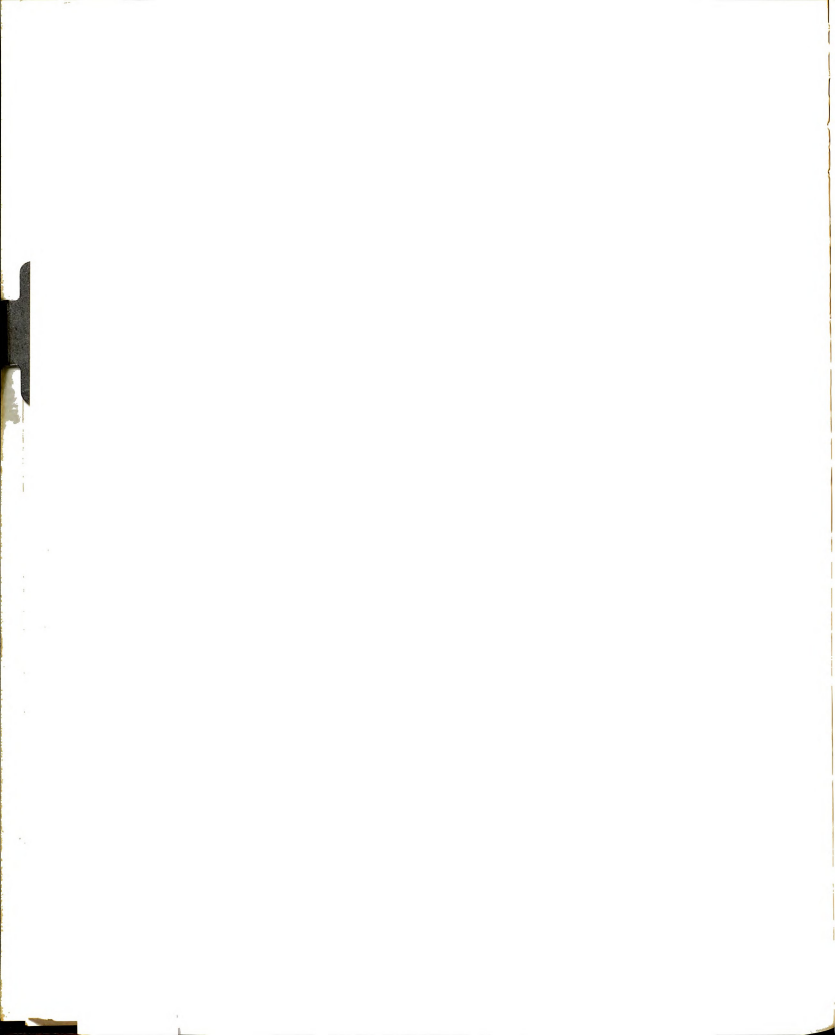
What journal characteristics are significantly related to intended readership?

What topics are significantly related to intended readership?

What data collection procedures are significantly related to intended readership?

What statistical methods reported are significantly related to intended readership?

What publication policies are significantly related to intended readership?



What journal characteristics are significantly related to adequacy of research reports?

What topics are significantly related to adequacy of research reports?

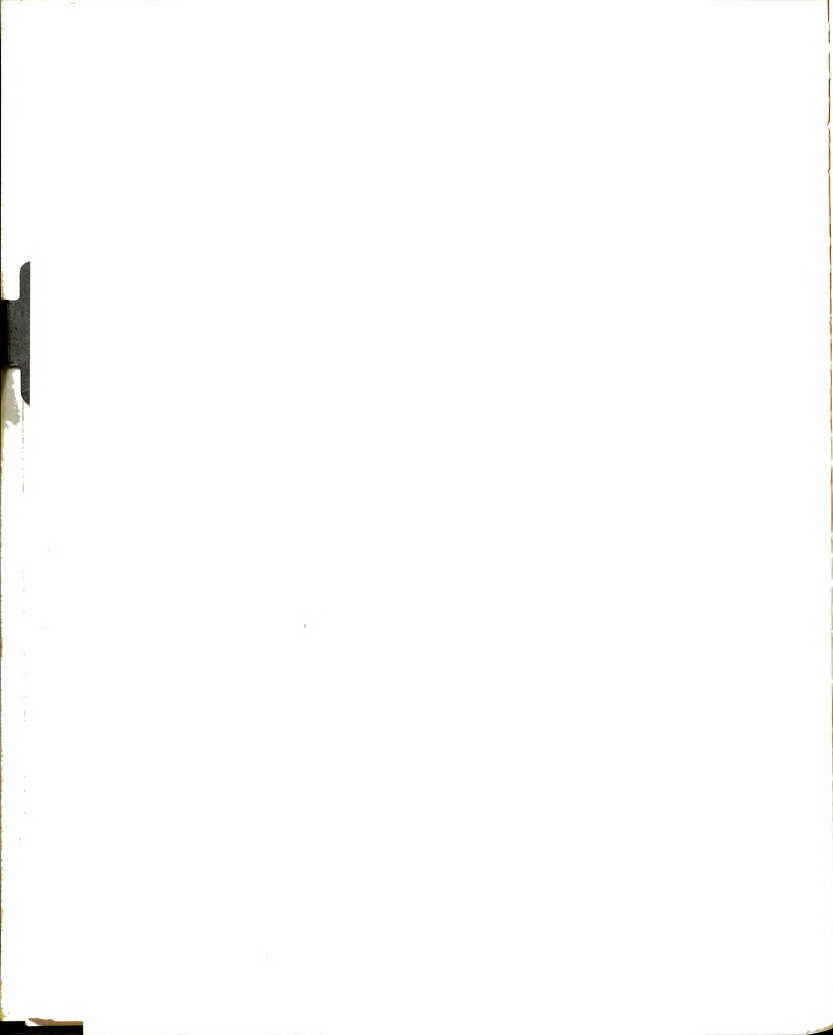
What data collection procedures are significantly related to adequacy of research reports?

What statistical methods reported are significantly related to adequacy of research reports?

What publication policies are significantly related to adequacy of research reports?

Canonical correlations are based on the assumptions of multivariate normality, homogeneity of the covariance matrix, and linearity between the two sets of variables. Evidence indicates that multivariate techniques of this nature are fairly robust to violations of these assumptions. Cochran indicates insensitivity to the use of ordered qualitative variables rather than those having a continuous normal distribution.<sup>2</sup> This point is substantiated by Williams who also indicates, however, though nonhomogeneity in the variance-covariance matrices may cause more trouble, there is no indication that this is true. The major problems arising from the use of this technique then result primarily from the possibility of multicollinearity and a large number of variables present compared to the number of subjects in the tests. The first multicollinearity could lead to unstable weights interpretable only for the variables and subjects used. This also may result in conflicting interpretations between multiple

<sup>1</sup>W. G. Cochran and C. R. Hopkins, "Some Classification Problems with Multivariate Qualitative Data," Biometrics, XVII (1961), 10-32.



resulting weights and zero-order correlations. As this is an exploratory study, it can thus indicate possible relationships which should be further investigated. The second, the large number of variables compared to subjects, will result in inflated  $R^2$  suggesting that a much higher relationship exists than may actually be accounted for by the most highly related variables.<sup>3</sup> Interpretation should therefore be made cautiously, based primarily on indicated relationships rather than degree.

The following question was answered by means of a summary table:

For what type of readers are professional journals in education intended?

Multivariate analysis of variance was utilized to determine differences between strata associated with the type of readership for which the journal articles were intended. Table 3.8 shows both the univariate and step down F as well as the multivariate F. As both the univariate F's and the step down F's indicate that the only difference between the two strata is the proportion of articles intended for the researcher, the remainder of the analyses were calculated on the total sample. This was done as the small number in each stratum, if analyzed separately, would result in greater error than would result from this difference between the strata.

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<sup>3</sup>E. J. Williams, "The Analysis of Association Among Many Variates," Journal of the Royal Statistical Association, Series B, XXIX (1967), 199-242.

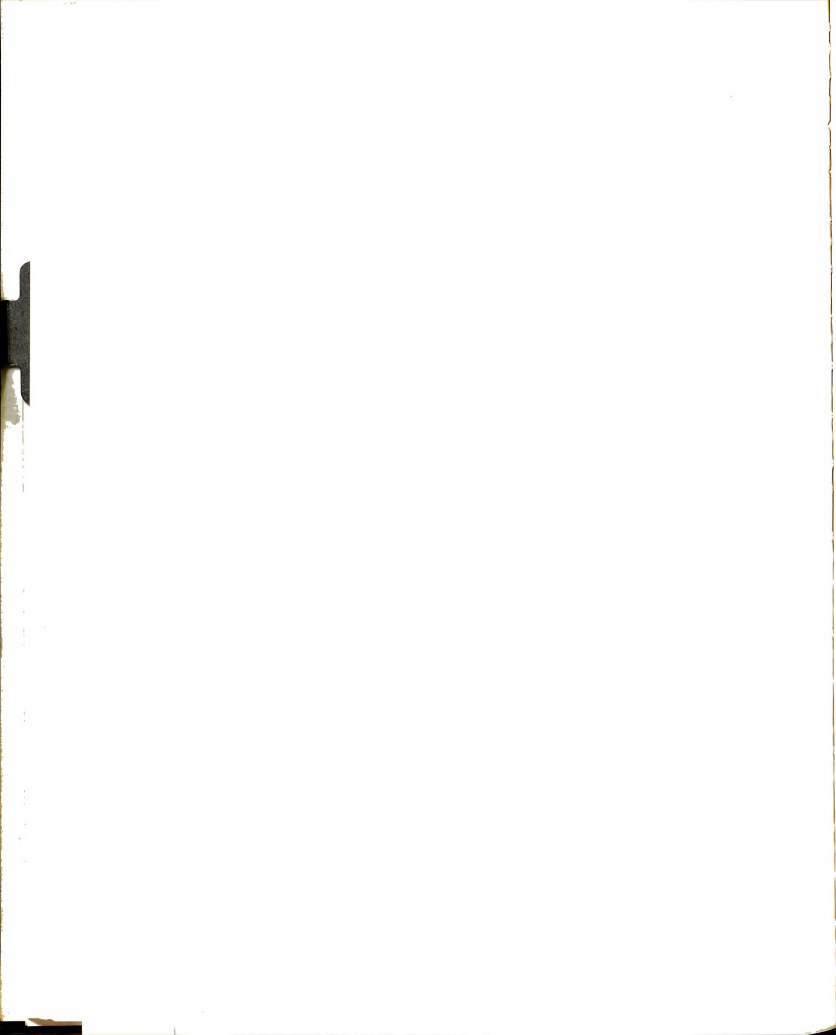


TABLE 3.8.--Multivariate Analysis of Variance for Intended Readership Between the Strata.

Multivariate F = 3.086  
 P < .025  
 Degrees of freedom 6.21

	Univariate F	P <	Step Down F	P <
Researcher	12.617	.002	12.617	.002
University teacher	1.602	.217	1.891	.181
Administrator	.095	.761	.019	.891
Counselor	.835	n.369	.565	.460
Teacher	3.526	.072	.989	.331
Other	2.507	.126	2.086	.164

Degrees of freedom 1.26

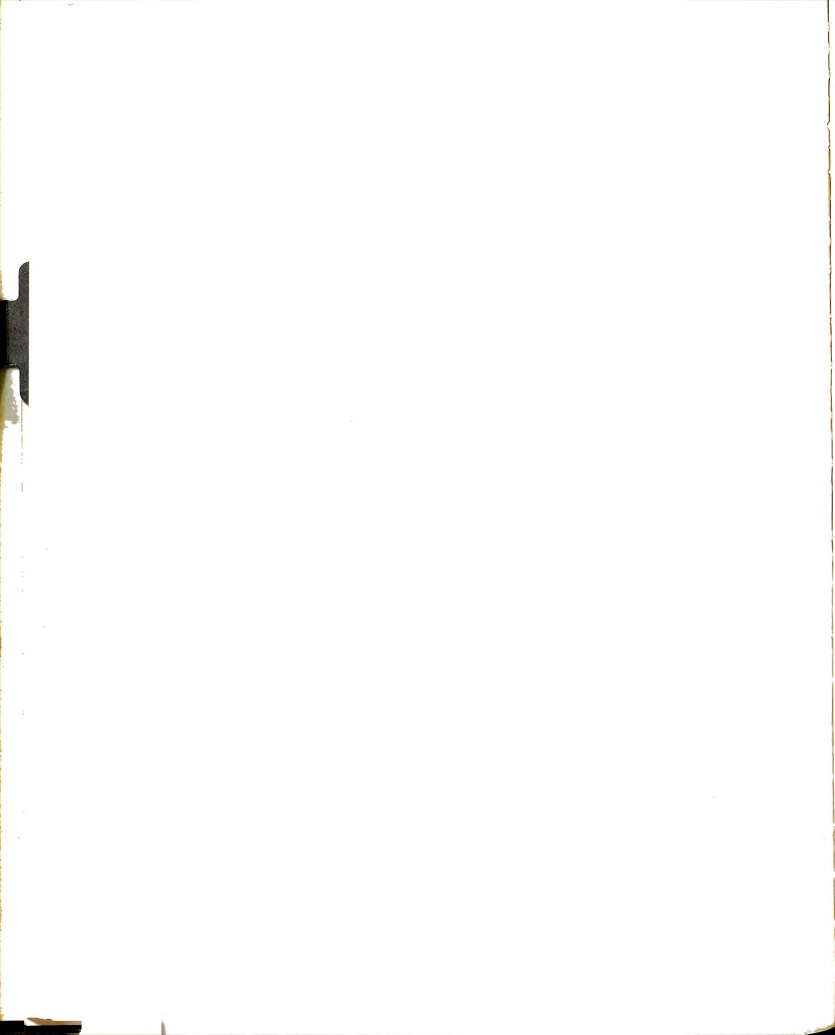
The percentages requested were not forced into adding to 100, but were used as a weight to indicate the relative importance of the characteristics of interest. All other variables that were primarily qualitative were given ordered values, each based on a relevant underlying continuum. The statistical techniques in this study were assumed to be robust with respect to normality of the variables.

#### Overview

In this chapter has been presented the methodology that was employed for this study including population, sample, data collection procedures, design, and analysis techniques.

The following chapter provides the results of the data analysis. Chapter V contains the conclusions and implications of the study as well as suggestions for further research.





## CHAPTER IV

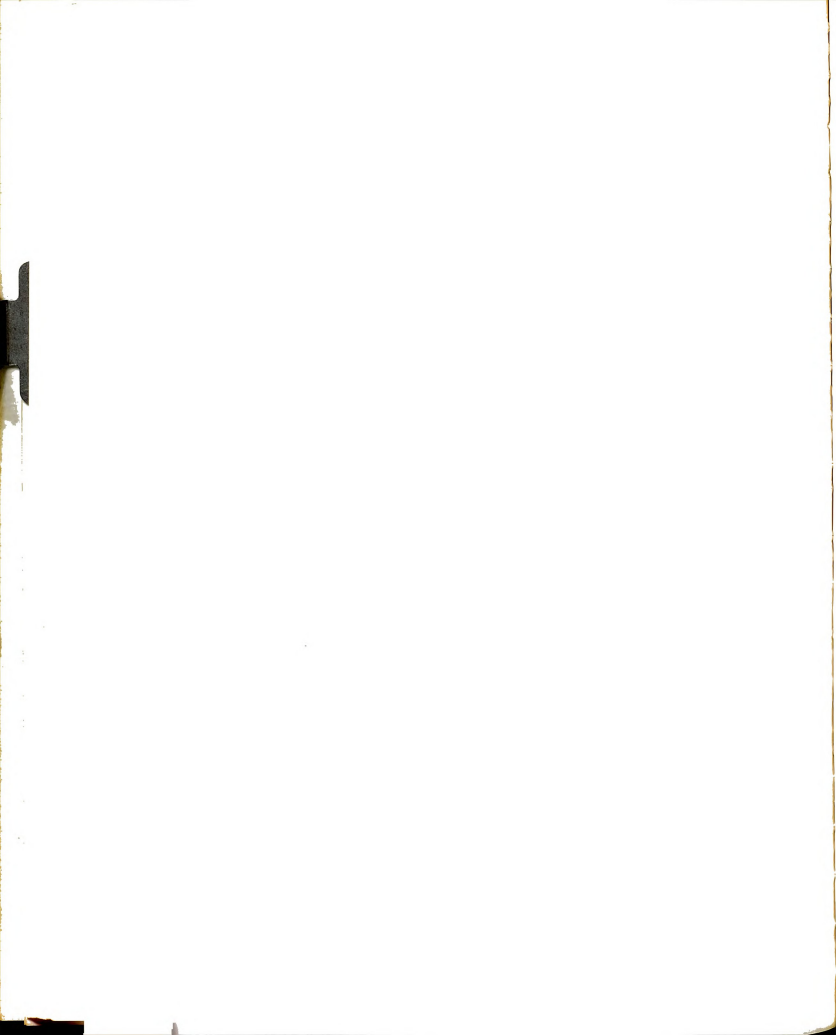
### DATA ANALYSIS AND FINDINGS OF THE STUDY

In this chapter is presented a brief description of the statistical analysis used as well as the findings which resulted. The first section contains a general explanation of the data analysis used and the resultant interpretation. The second section presents each question, the statistical results of the analysis, and a specific interpretation for that question.

#### Statistical Methodology

Canonical correlation analysis was used in this study as it allowed the researcher to test the independence between the linear composites of two sets of variables while taking into account the non-independence within each set.

Canonical correlation utilizes the intercorrelations between the two sets of variables and results in two sets of regression weights such that when the first set of weights is applied to the first set of variables and the second set of weights is applied to the second set of variables, the two sets are correlated maximally. As there are two sets of weights applied to the two sets of variables, it is not necessary to determine which set is



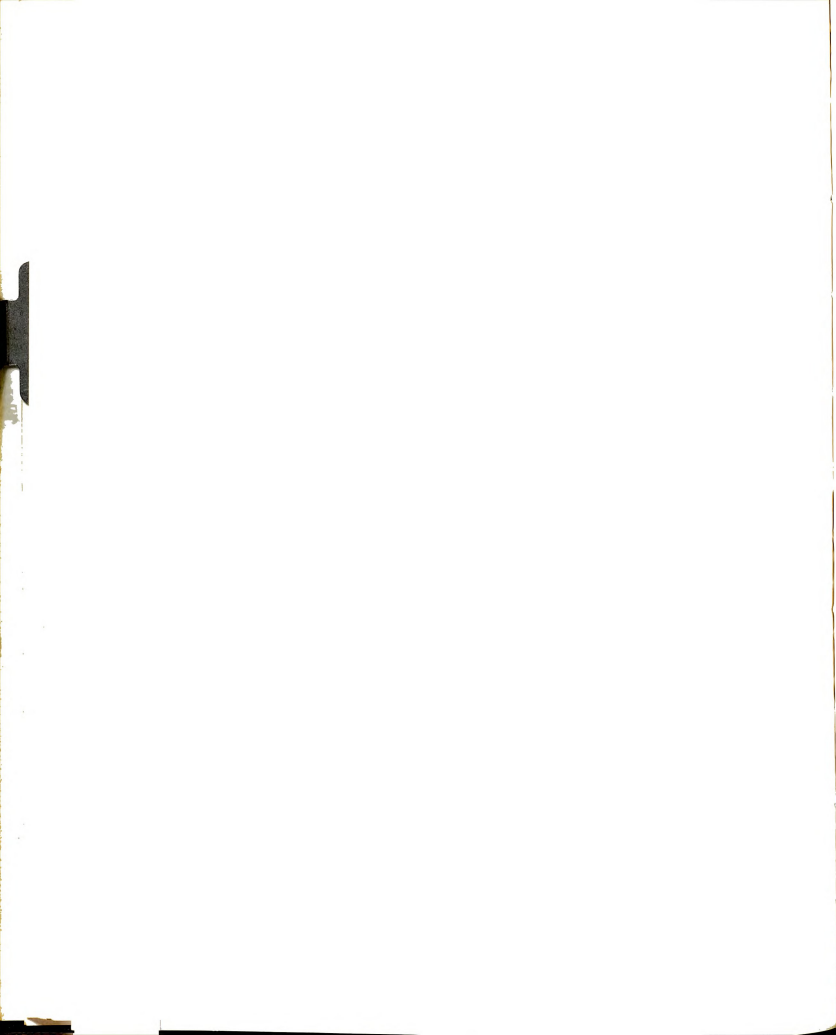
predictor and which set is the criterion as is the case for multivariate regression problems. In the extreme case of only one variable within one of the two sets, however, the procedure reverts to a simple multiple regression problem. Canonical correlation thus emphasizes relationships rather than a straight prediction criteria model.

When a canonical analysis is computed, a matrix of regression weights, the canonical weights, results for each set of variables such that the second set of weights for each set yields a correlation between the two sets totally orthogonal to that obtained by the first sets of weights, the third uncorrelated with the first and second, etc. The number of sets of weights thus obtained is limited by the number of variables in the smaller of the two sets. The canonical R resulting from each set of weights is the product moment correlation obtained between the two sets of variables when the canonical weights are multiplied by the values of the corresponding variables in each set and summed over the set. Thus, the canonical R can also be interpreted as a multiple R, the relationship between one variable (that resulting from the application of the canonical weights to one set and summed over that set) and a set of variables (those of the other set multiplied by their canonical weights, as in a multiple regression problem). The canonical  $R^2$  is an indication of the amount of variance



accounted for in one set of weighted variables by the other set of weighted variables.

The canonical weights derived for each set of variables can be used as an indication of which variables within each set contribute most to the overall relationship between the two sets. As each of the two sets of weights obtained from each canonical variate can be considered as regression weights to correlate maximally with the other canonical variable, each set of weights can be interpreted as a set of beta weights in a multiple regression problem. The relative size of the weights within a set thus indicates the relative importance of each variable within the set in explaining the other canonical variable. Opposite signs indicate that a low value for one variable can be compensated for by a high value for an equally weighted but opposite signed variable of the same set in obtaining the maximum correlation with the opposite set. Similar signs for two variables, one in each set, indicate positive relationships on that particular variate while opposite signs indicate a negative relationship. When more than one set of weights results which accounts for a sufficient amount of the variance, inspection of these weights will indicate the different emphasis for each of these sets of weights within the two sets of variables. If more than one set of weights results which accounts for a sufficient amount of the variance between the two sets of variables, this may also indicate the existence of

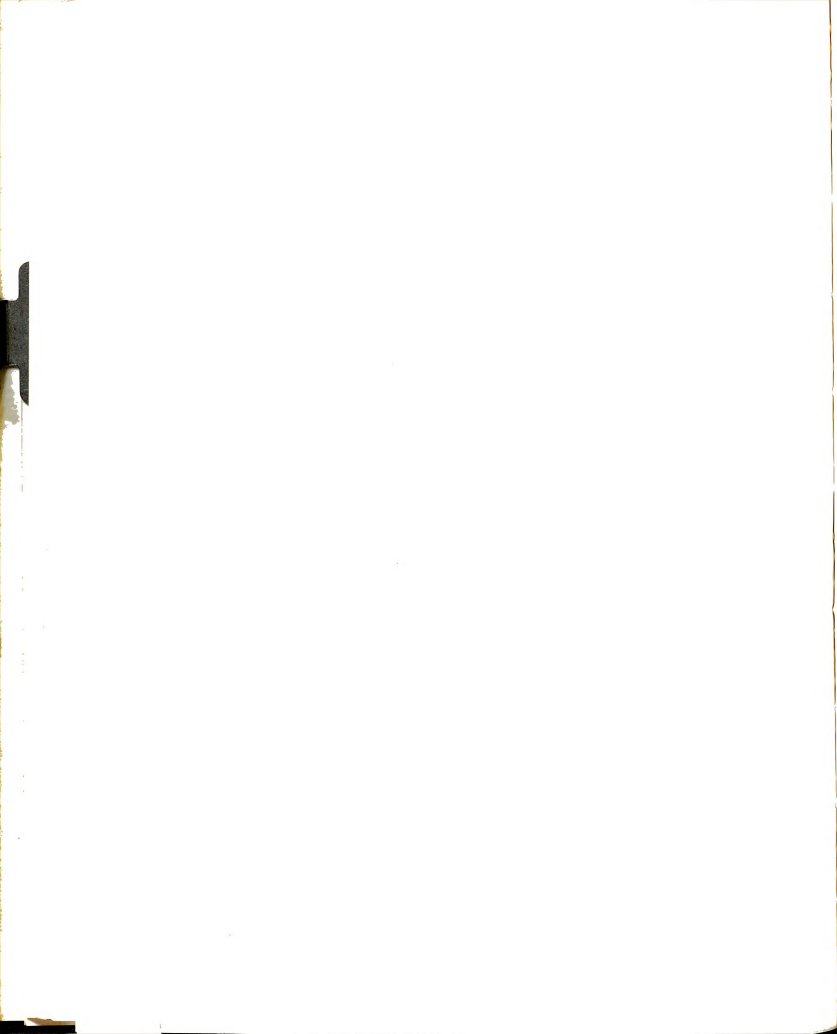


multiple underlying dimensions between the two sets, as each resulting pair of canonical variates is orthogonal to those preceding.

Each set of canonical weights can then be interpreted as a set of regression weights with the added advantage that each set of canonical weights for a given set of variables emphasizes a different aspect of the other set of variables, as indicated by their corresponding set of weights. Thus, those canonical variates yielding a sufficient canonical  $R^2$ , or amount of variance which can be accounted for, indicate which of the underlying dimensions are strongest. A large number of variables compared to sample size may overly inflate this value but its relative size to other  $R^2$ 's is nevertheless indicative of relative importance.

This technique relies on the intercorrelation between the two sets of variables and within each of the two sets. It results in weights interpretable in a manner similar to regression weights. The basic result is an indication of the linear relationship between the two sets of variables and thus is based on an assumption of at least ordinal data with an underlying interval continuum. As one set of variables has been weighted to maximally correlate with a second set of variables weighted to correlate maximally, any resulting error is assumed to be a normally distributed random variable with a mean of zero and an unknown variance, that is, random error.





### Statistical Findings

The statistical findings of this study are presented in this section. This section is organized by question to be answered in the order that they were presented in Chapter I, and by method of analysis.

Space limitations preclude the insertion of tables not directly related to the statistical findings at this point.

### Canonical Correlation Analysis

Question 2: What journal characteristics are significantly related to intended readership?

Findings.--Intended readership includes a series of six continuous variables, each of which is an indication of the importance or weight the editors of the sampled journals attached to each type of reader for their journal. These weights are independent in that articles may be of primary importance to more than one type of reader. Table 4.1 shows the range, mean, and standard deviation for each of the variables included in intended readership. All ranges reported are actual. The correlation matrix presented in Table 4.2 reports the degree of interrelationship between the relative importance of type of reader. The significance test indicated in this and all following correlation tables indicates a two-tail test of significance with  $n = 28$ . This table shows that as

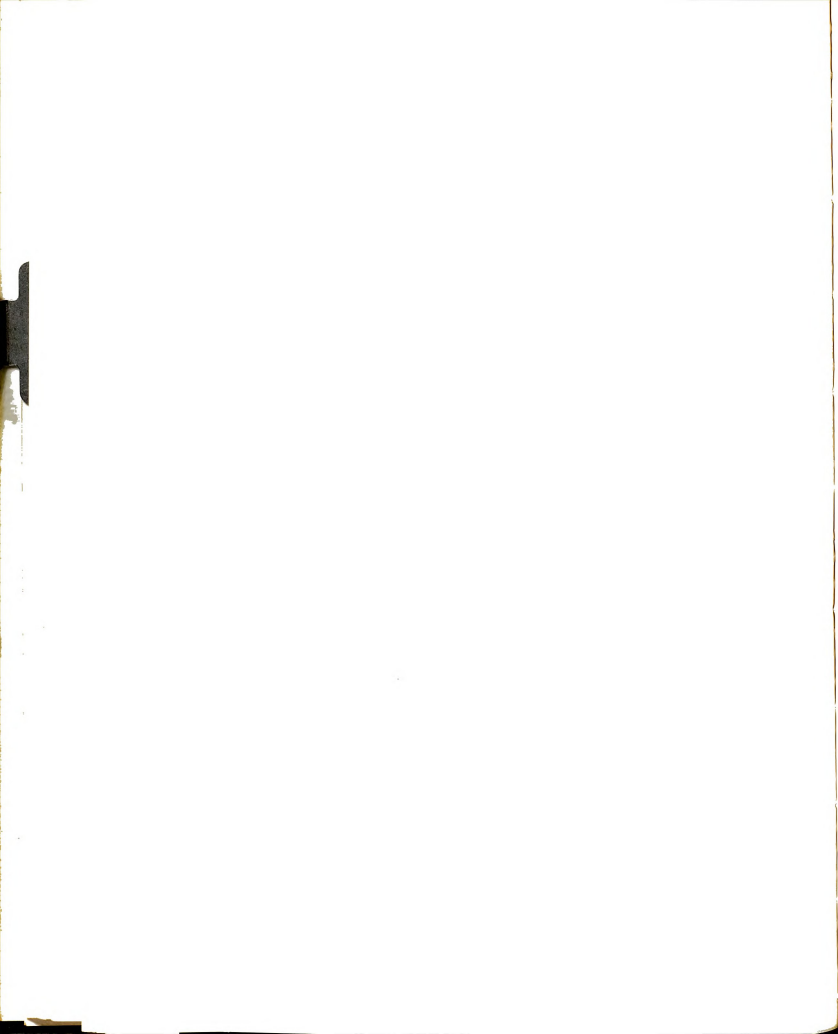


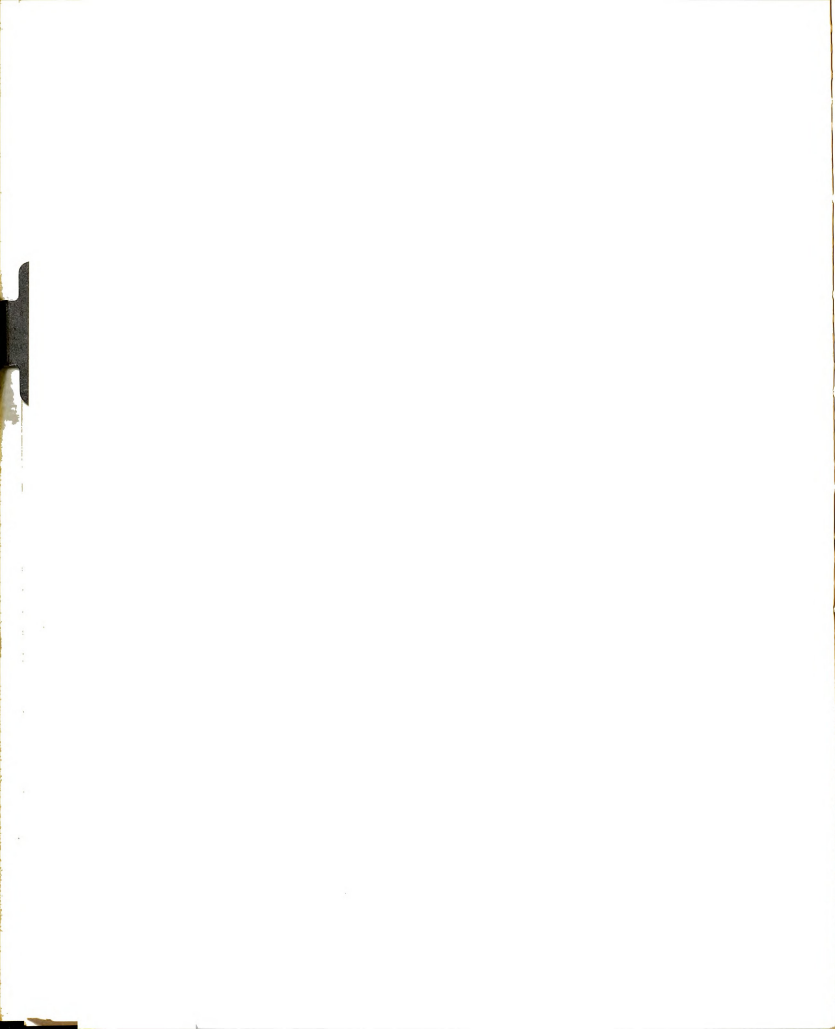
TABLE 4.1.--Intended Readership.

	Range	Mean	Standard Deviation
Researcher	0-100	30.0	37.2
College teacher	0-100	42.5	33.7
Administrator	0-100	22.3	27.0
Counselor	0-100	8.9	19.6
Teacher	0-100	23.2	29.0
Other	0-100	11.1	27.7

TABLE 4.2.--Intercorrelation Matrix for Intended Readership.

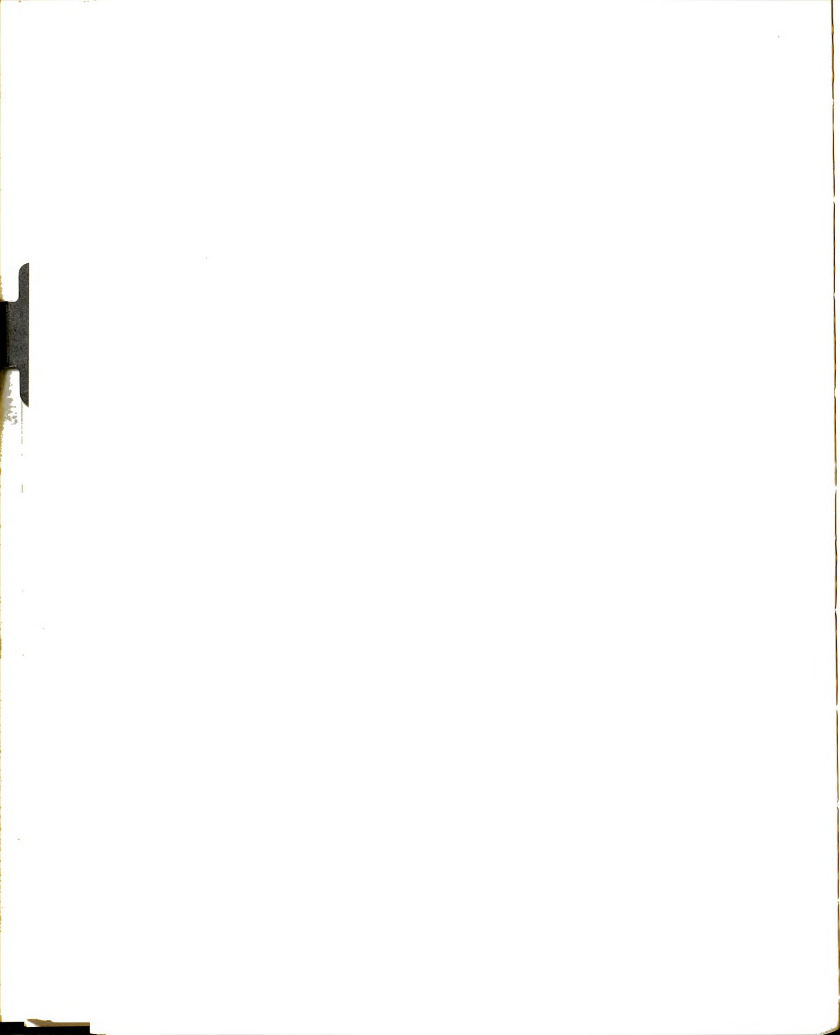
Researcher	1.00					
College teacher	-.041	1.00				
Administrator	-.141	.015	1.00			
Counselor	.230	.280	.451*	1.00		
Teacher	-.425*	-.036	-.260	-.104	1.00	
Other	-.246	.038	.445*	.065	.276	1.00
	Researcher	College teacher	Administrator	Counselor	Teacher	Other

\*Significant at  $\alpha = .05$  level.



the importance of researchers as readers increases, the importance of public school teachers decreases. A high positive relationship is shown between the importance of administrators and counselors, an indication that these two groups are not clearly separate in regard to their needs as perceived by journal editors. A high positive correlation is also shown between administrators and others, a further indication that it is not entirely clear to journal editors what would be of interest to administrators.

Journal characteristics included four continuous variables and one categorical variable which is being treated as ordinal for purposes of analyses. The continuous variables are number of years published which resulted from subtracting the first year of publication from 1974, average monthly circulation as supplied, number of issues per year, and average number of articles as determined by finding the mean number of articles for each of the issues investigated for each journal. The fifth variable of the set, method of distribution, was obtained by combining the responses of each editor to the question of availability into the definitions of availability reported in Chapter III. This variable is being treated as ordinal based on the assumption of an underlying continuum of ease of availability, from most easily



obtainable being that category including "over-the-counter" to most difficult to obtain being available only through membership in an organization which requires recommendations for membership. Table 4.3 shows the range, mean, and standard deviations for these variables.

TABLE 4.3.--Journal Characteristics.

	Range of Responses	Mean	Standard Deviation
Number of years published	6-74 years	31.8	22.8
Average monthly circulation	700-92,506	17,020.8	21,071.5
Method of distribution	1-5	3.1	1.2
Number of issues per year	3-12	6.4	2.6
Average number of articles	4-31	12.4	5.7

The matrix presented in Table 4.4 shows the intra-correlations among journal characteristics. There is a high correlation between length of time published and average monthly circulation and between length of time published and number of issues per year, indicating that the newer journals are also being published less frequently. There is also a very high correlation between average monthly circulation and number of issues per year, indicating that those which are published most often are also most popular.





TABLE 4.4.--Intracorrelation Matrix for Journal Characteristics.

Number of years published	1.00				
Average monthly circulation	.399*	1.00			
Method of distribution	-.010	0.075	1.00		
Number of issues per year	.447*	.713**	-.153	1.00	
Average number of articles	-.105	.332	-.510**	.101	1.00
	Number of years published	Average monthly circulation	Method of distribution	Number of issues per year	Average number of articles

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.

Table 4.5 presents the intercorrelation matrix between journal characteristics and intended readership. It is of interest to note that researcher as intended reader is negatively correlated to all characteristics except average number of articles and then only somewhat positively. Teachers are highly positively related to number of years published, indicating that the older journals are intended more for teachers while the newer ones tend to be addressing the researcher more.

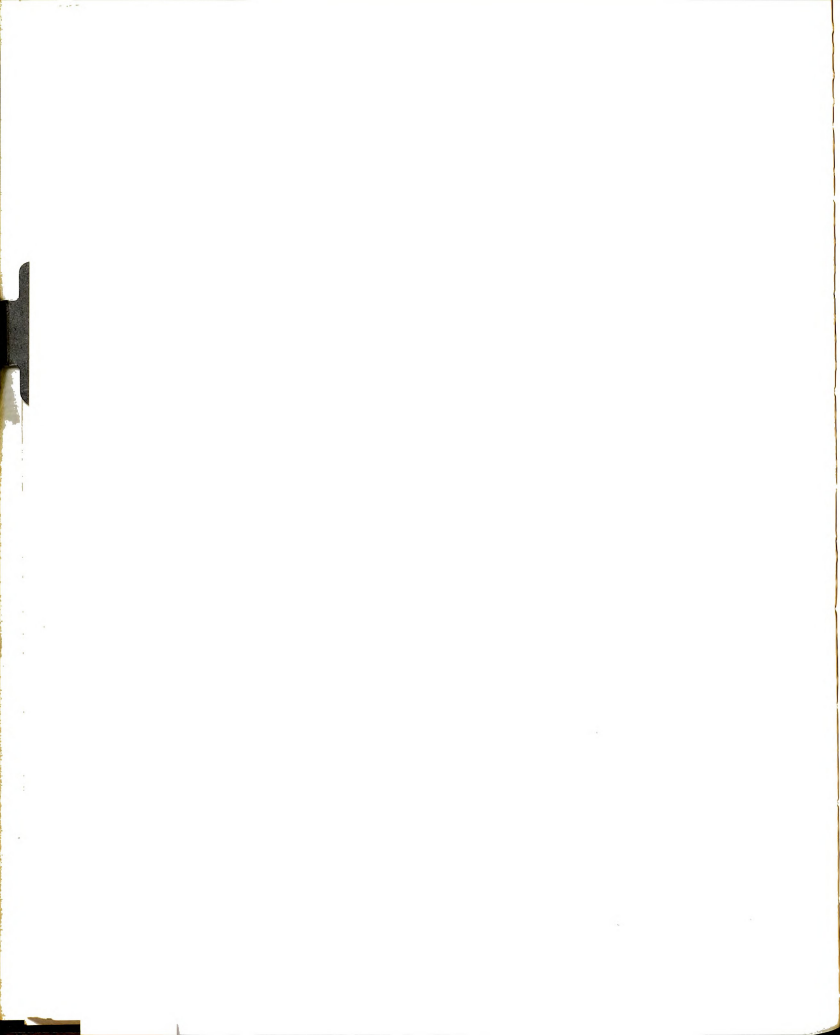


TABLE 4.5.--Intercorrelation Matrix for Journal Characteristics and Intended Readership.

	Researcher	College teacher	Administrator	Counselor	Teacher	Other
Number of years published	-.475*	.056	.282	-.062	.390*	-.033
Average monthly circulation	-.347	.178	.116	-.093	.212	.197
Method of distribution	-.201	.053	.316	.305	.002	.105
Number of issues per year	-.548**	.358	.113	-.085	.249	.267
Average number of articles	.250	-.174	-.169	.043	.164	-.140

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.

Table 4.6 presents the first and second sets of canonical weights. The first set again separates researcher and counselor from other types of readers, but primarily researcher against college teacher and administrator. The primary journal characteristic leading to this distinction is number of issues. These findings apparently are a result of journals being intended primarily for researchers being published less frequently than those intended for college teachers or administrators. Those journals having

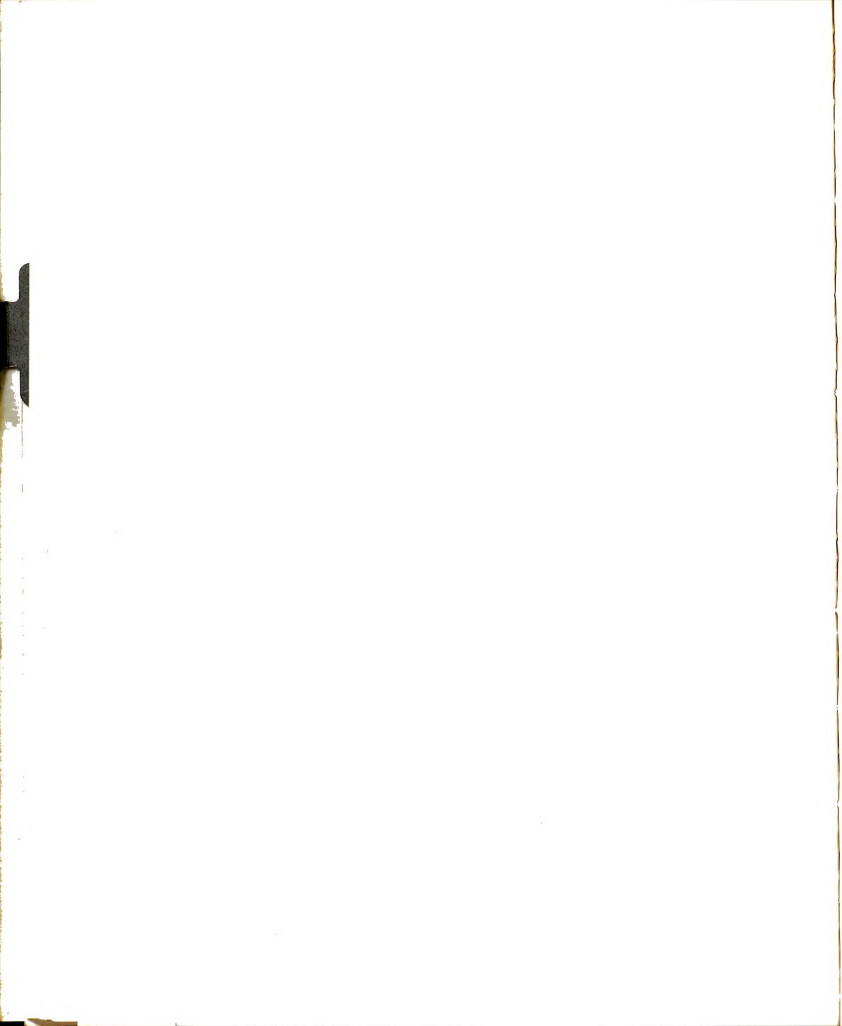


TABLE 4.6.--Canonical Weights for Journal Characteristics and Intended Readership.

	First Canonical Weight	Second Canonical Weight
<u>Intended Readership</u>		
Researcher	.708	.092
College teacher	-.442	-.451
Administrator	-.366	.592
Counselor	.112	.329
Teacher	-.136	.591
Other	-.015	-.469
<u>Journal Characteristics</u>		
Number of years published	-.311	.913
Average monthly circulation	.049	-.481
Method of distribution	-.304	.695
Number of issues per year	-.775	-.280
Average number of articles	.256	.912
Canonical R	.787	.657
Canonical R <sup>2</sup>	.619	.432

a high interest in both college teachers and administrators appear to be influenced by their longer professional commitment throughout the years. This set of weights has a canonical R of .79 and a canonical R<sup>2</sup> of .62 indicating 62 percent of the variance has been accounted for.

The second set of canonical weights differentiates college teacher and other from the remaining types of



readers with almost no emphasis on researchers. The primary characteristics leading to this distinction are number of years published and average number of articles. This finding appears to separate public school personnel from college personnel, with the public school personnel being addressed through older journals having more articles and the college personnel being addressed primarily through newer journals having fewer articles. The canonical R for this set is .66 and the canonical  $R^2$  is .43.

Question 3: What topics are significantly related to intended readership?

Findings.--Topics included the relative weights of the occurrence of 18 mutually exclusive and exhaustive topics of the articles investigated for each journal. As with type of article, each article was allowed to fall under only one topic. Although there are two topics which appear to have a name similar to the variables of type of article, they are not the same. These articles which were categorized as review of literature articles under type of article were placed in appropriate content categories for topic. Those articles which fell into the review category were reviews of books, articles, and other publications, many of which had been classified as expository articles. Those articles falling under the topic research methodologies were not most often research





articles, but expository articles suggesting the use of a tool or method for research or evaluation purposes. The resulting weights for topic were derived as defined in Chapter III through the use of the following formula:

$$w_k = \frac{\sum n_{hk}}{I_k} \text{ so that } W_k = 10 (w_k)$$

where  $n_{hk}$  = the number of articles per topic within journals based on  $n_h > .03N$  where  $N$  = the total number of articles investigated,

$I_k$  = the number of issues investigated within journals,

$w_k$  = the topic weight by journal, and

$W_k$  = the resulting topic weight by journal as used for further calculations.

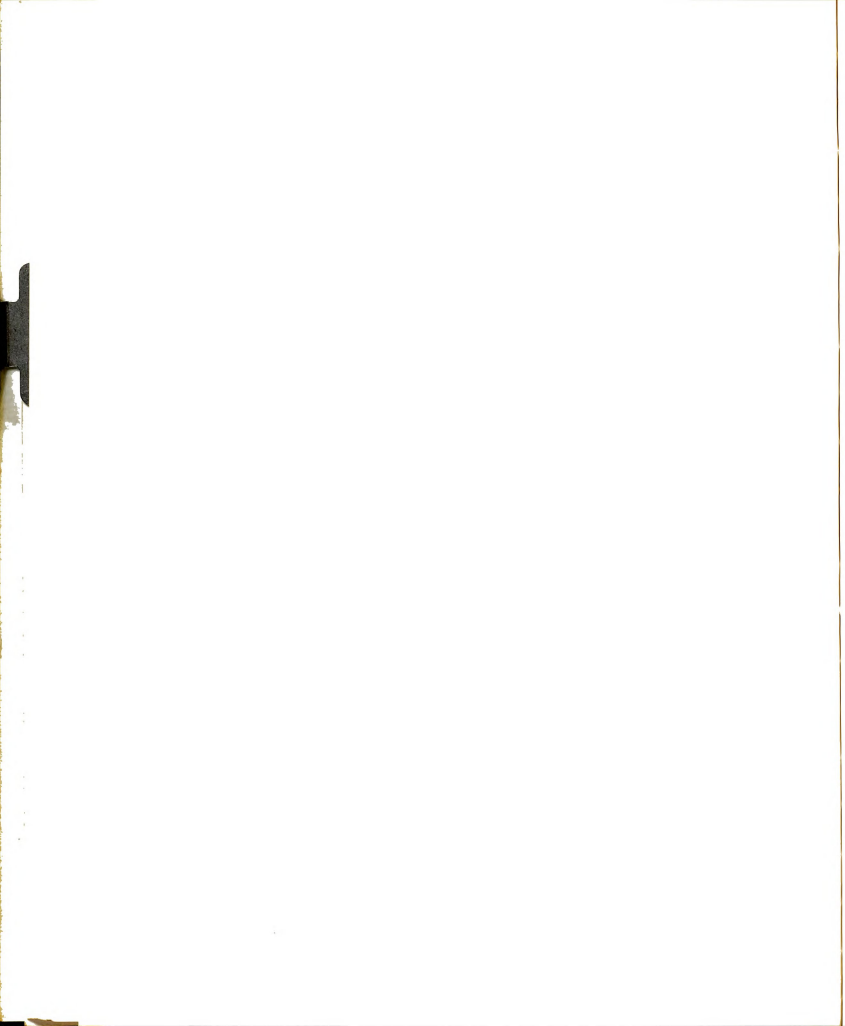
As with type of article, the number of articles published by a journal was not directly limited, so that this set of variables also, while not being completely independent, were not dependent and were therefore appropriately analyzed by this method. Table 4.7 shows the range, mean, and standard deviation for each of the variables of topic.

Table 4.8 shows the intracorrelation matrix for topic. It is of interest to note that only 10 of the 171 correlations are significant. Table 4.9 shows the inter-correlations matrix for topic and intended readership.



TABLE 4.7.--Topic.

	Range	Mean	Standard Deviation
Research methodologies	0-18	2.3	3.9
Teacher education	0-25	3.6	5.5
Cultural influences	0-30	5.5	7.3
Business and finance	0-20	1.5	4.1
Philosophy	0-40	2.9	7.7
Legal areas	0-23	2.2	4.6
Review	0-10	1.7	2.9
Tangible materials	0-15	3.3	4.4
Personnel	0-9	1.7	2.9
Learning and development	0-123	5.9	23.1
Counseling methodologies	0-47	2.0	9.0
Teaching--affective	0-9	2.8	2.8
Teaching--cognitive	0-38	6.6	9.9
Administrative policies	0-16	3.5	4.5
College curriculum	0-13	2.4	3.4
Public school curriculum	0-17	3.3	5.1
Faculty role	0-10	1.9	3.1
Miscellaneous	0-16	4.0	4.5





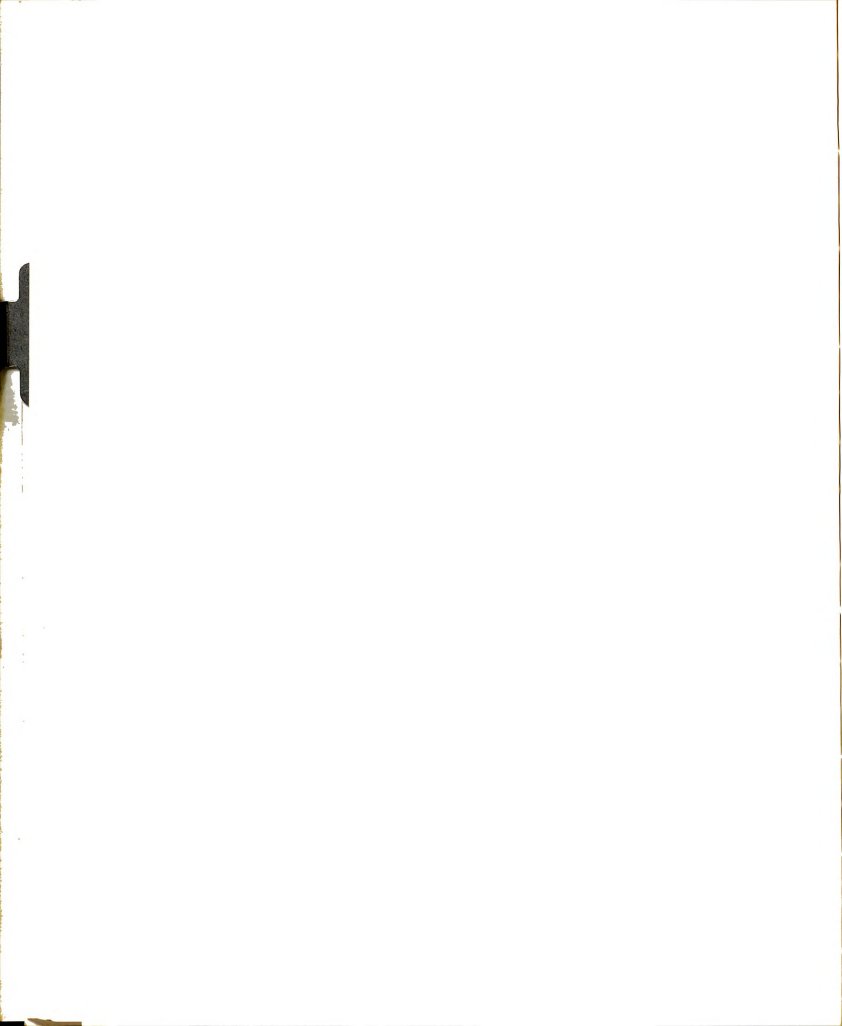
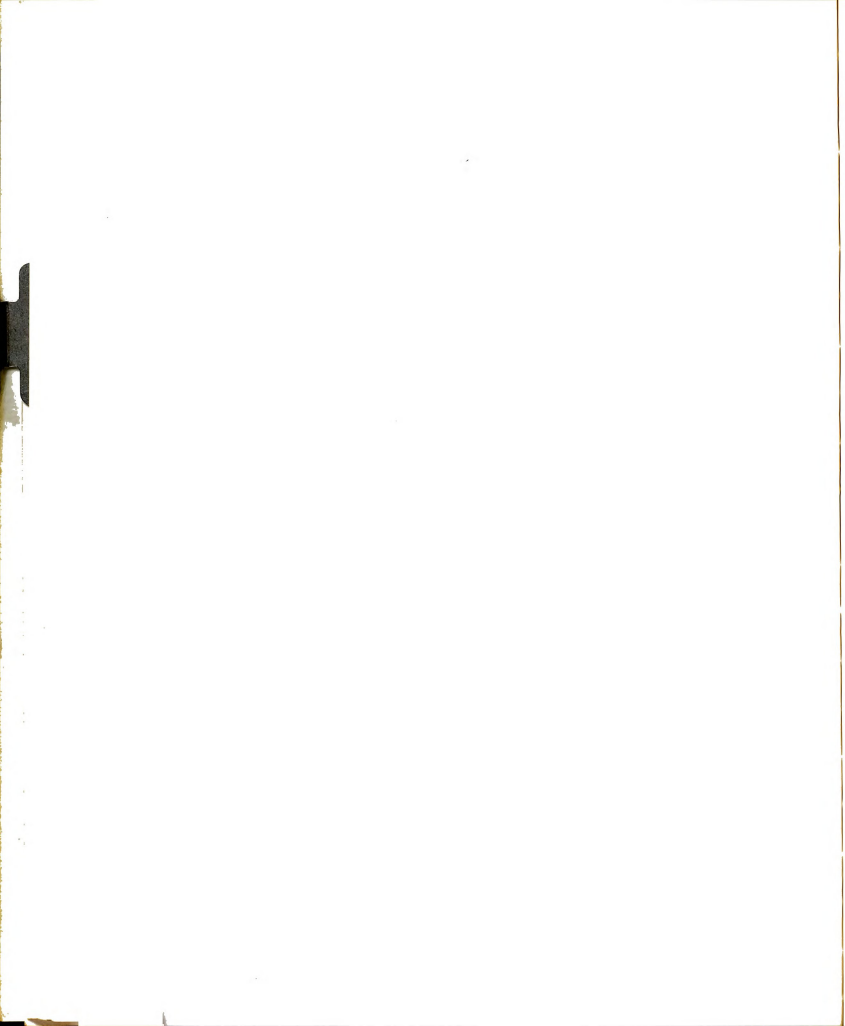


TABLE 4.9.--Intercorrelation Matrix for Topic and Intended Readership.

	Researcher	College teacher	Administrator	Counselor	Teacher	Other
Research methodologies	.588**	.190	.064	.676**	-.215	-.179
Teacher education	-.135	.029	-.015	.190	.028	-.141
Cultural influences	.423*	-.265	.017	-.057	-.222	-.054
Business and finance	-.241	.214	-.064	-.074	-.193	-.058
Philosophy	-.096	-.041	-.079	-.131	.110	-.042
Legal areas	-.151	-.284	.312	-.100	-.236	.159
Review	-.006	-.330	-.072	-.090	.356	-.008
Tangible materials	-.075	.488**	-.167	-.107	.243	.107
Personnel	-.309	-.197	.653**	.023	-.246	.395*
Learning and development	.379*	-.233	-.133	-.087	-.144	-.092
Counseling methodologies	.344	.327	.164	.877**	-.121	-.094
Teaching--affective	-.008	.157	-.245	-.209	.239	-.005
Teaching--cognitive	-.436*	.105	-.403*	-.218	.756**	-.045
Administrative	-.230	-.273	.388*	-.026	-.192	.158
College curriculum	-.380*	.026	.290	.001	-.085	.114
Public school curriculum	-.227	-.105	-.240	-.180	.669**	-.200
Faculty role	.112	.053	-.036	.400*	.223	-.114
Miscellaneous	-.028	-.357	-.319	-.133	.440*	-.313

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.





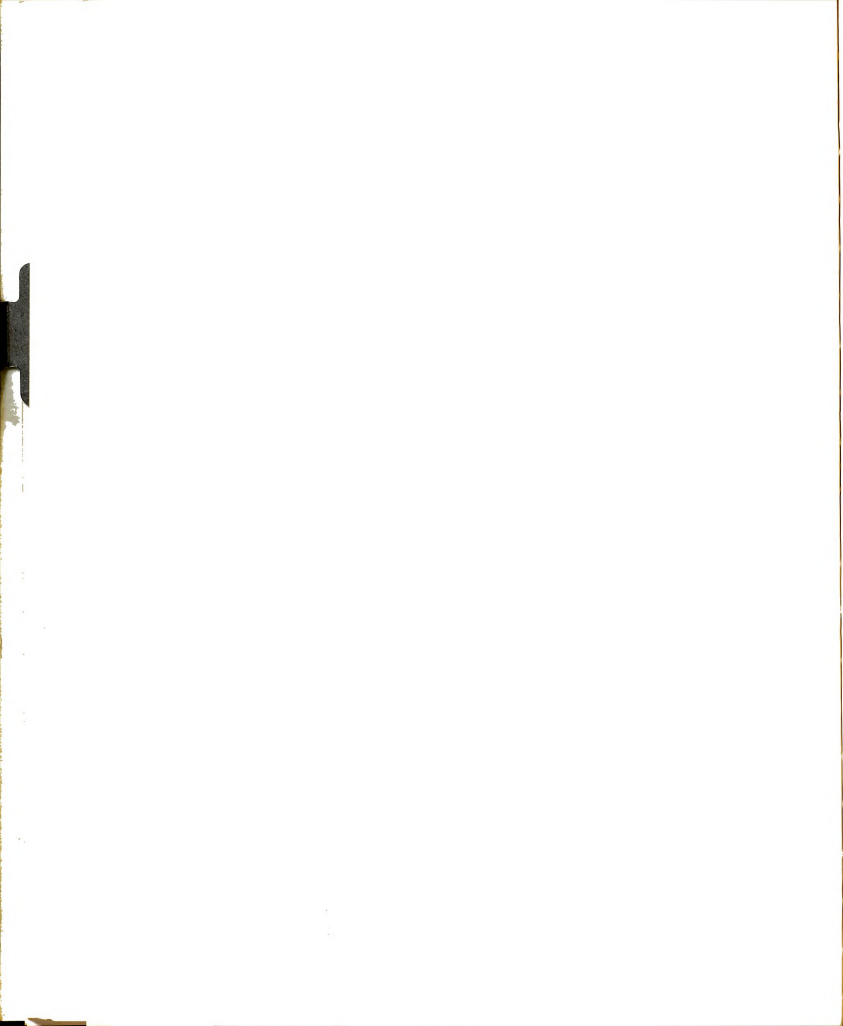
This table shows that journals attributing more importance to researcher as the type of reader for whom they attempt to publish articles will be most likely to publish articles concerning research methodologies, cultural influences, and learning and development, and least likely to publish articles concerning teaching methodologies in the cognitive areas and college curriculum. The college teacher is most likely to see articles concerning new materials to use in his teaching. The administrator is expected to need articles on personnel and administrative policies and not to need articles concerning teaching methodologies in the cognitive areas. The counselor is most likely to have articles on counseling methodologies and research methodologies as well as faculty role. Teachers are most likely to have articles on teaching methodologies in the cognitive areas, public school curriculum, and miscellaneous. The primary type of topic included for "other" is personnel.

Table 4.10 presents the first four sets of canonical weights for topic and intended readership. The first set tends to differentiate college teachers and counselors from other types of readers, although primarily from administrators and researchers. The topic contributing most to this differentiation is counseling methodologies. Teaching methodologies for cognitive areas, business and finance, teacher education, and faculty role are also primary

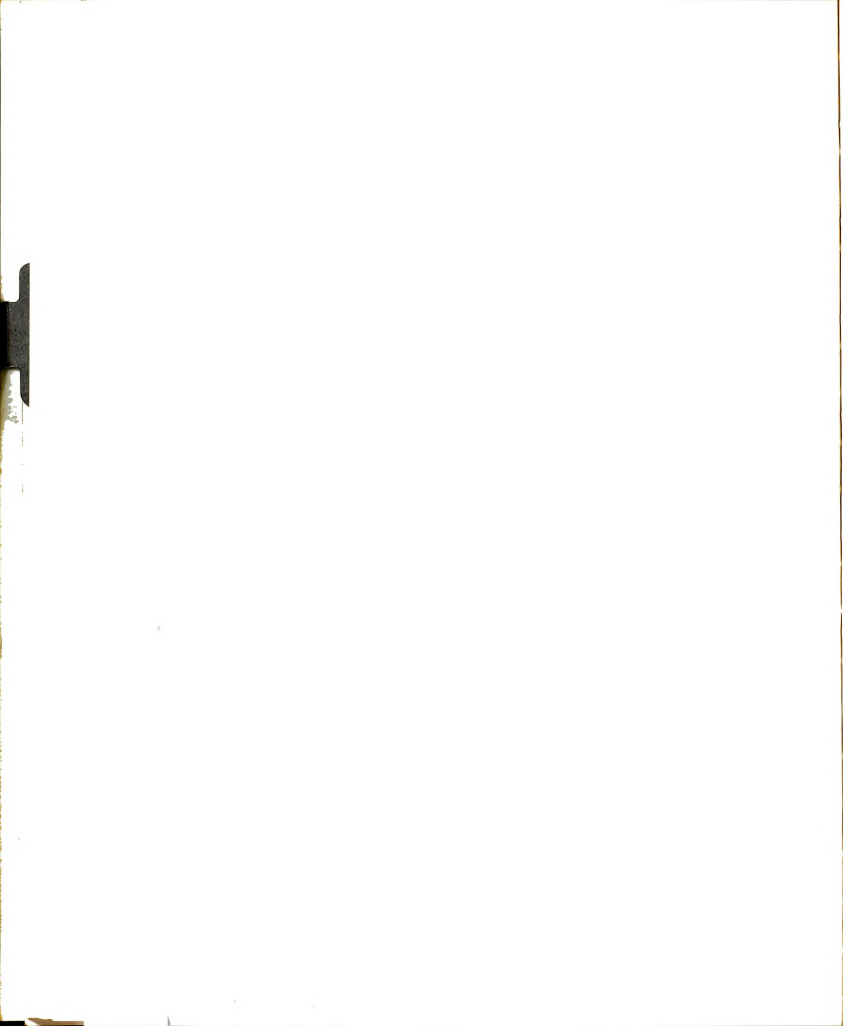


TABLE 4.10.--Canonical Weights for Topic and Intended Readership.

	First Canonical Weights	Second Canonical Weights	Third Canonical Weights	Fourth Canonical Weights
<u>Intended Readership</u>				
Researcher	-.392	.533	.680	.557
College teacher	.570	-.275	-.134	.661
Administrator	-.560	.172	-.499	.013
Counselor	.761	.511	.111	-.763
Teacher	-.145	-.261	.811	-.282
Other	-.012	-.129	.209	-.036
<u>Topic</u>				
Research methodologies	-.069	.244	-.818	.901
Teacher education	.472	-.256	-.139	.058
Cultural influences	.020	-.361	.490	-.032
Business and finance	.506	-.352	-.225	.287
Philosophy	.050	-.368	-.023	-.056
Legal areas	-.237	-.077	-.062	-.032
Review	-.191	.389	.232	-.300
Tangible materials	.194	-.205	.127	.593
Personnel	.221	-.150	-.602	-.227
Learning and development	-.153	.105	.051	-.172
Counseling methodologies	1.030	.340	.636	-1.239
Teaching--affective	.329	.064	-.210	.517
Teaching--cognitive	.547	-1.027	-.123	-.699
Administrative	-.112	-.049	-.271	-.192
College curriculum	-.140	.018	-.023	-.023
Public school curriculum	-.219	.110	.221	-.218
Faculty role	-.521	-.089	.066	.181
Miscellaneous	-.005	.080	.373	.119
Canonical R	.989	.976	.939	.855
Canonical R <sup>2</sup>	.978	.953	.882	.731



contributors. Counselors and college teachers are thus perceived to be interested in articles concerning counseling methodologies, teaching methods in cognitive areas, business and finance, and teacher education. Administrators and researchers are seen as interested in faculty role. This set of weights has a canonical R of .99 and a canonical  $R^2$  of .98. The second set of canonical weights separates researcher and counselor from other types of readers with no particular importance being given to the other types. The topic contributing most to this differentiation is teaching methodologies in cognitive areas, with a sign opposite that of researcher and counselor, indicating that this topic would most likely be lacking in journals intended primarily for these two types of reader. This set of weights has a canonical R of .98 and a canonical  $R^2$  of .95. The third set of weights differentiates researchers and teachers from administrators through heavy weightings for research methodologies, personnel, and counseling methodologies indicating a high mutual interest by researchers and teachers in research and counseling methodologies, as opposed to administrators who have a high interest in personnel. This set of weights has a canonical R of .94 and a canonical  $R^2$  of .88. The fourth set of canonical weights differentiates researchers and college teachers from counselors primarily through high weightings on counseling methodologies, research



methodologies, teaching methodologies in cognitive areas, tangible materials, and teaching methodologies in affective areas. It indicates a high mutual interest in research methodologies, tangible materials, and teaching methodologies in affective areas for the researcher and the college teacher, probably all related to an increased interest in the affective areas. Counselors, on the other hand, are seen as being interested in the more concrete areas such as counseling methodologies and teaching methodologies in the cognitive areas. This set of weights has a canonical R of .86 and a canonical  $R^2$  of .73.

Question 4: Is there a relationship between type of articles and intended readership?

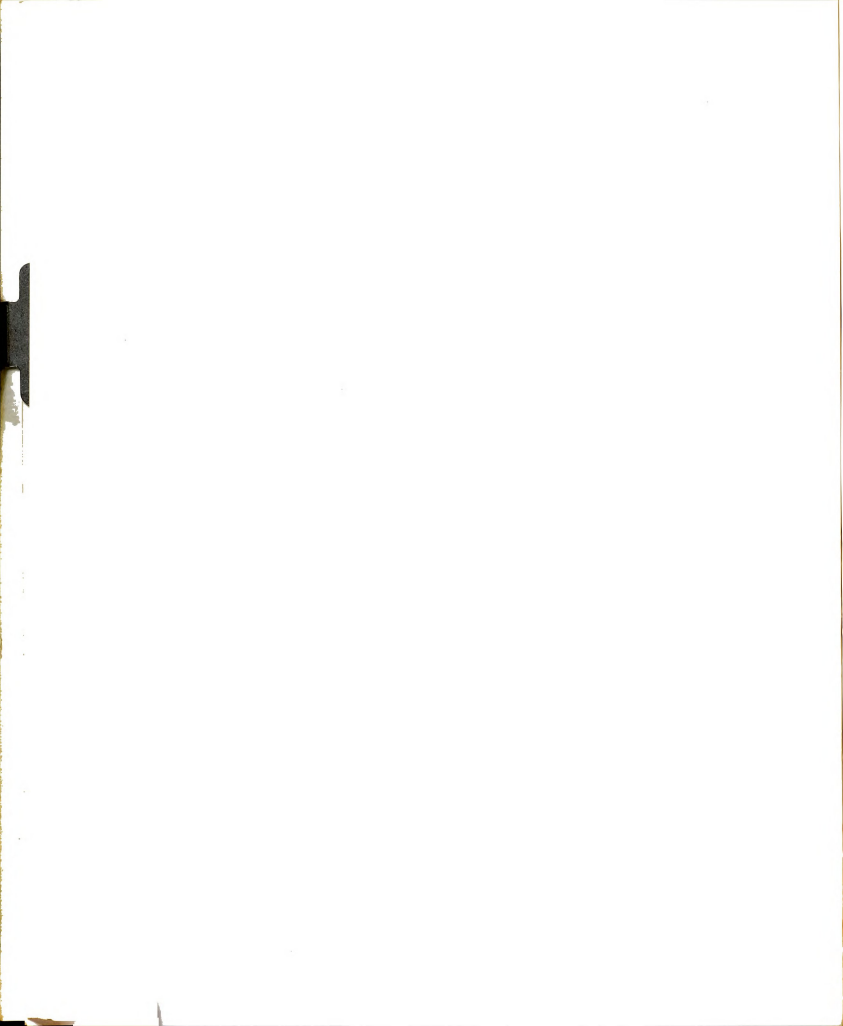
Findings.--Type of article includes the relative weights of the occurrence of three mutually exclusive and exhaustive categories of articles. These weights were derived as defined in Chapter III through the use of the following formula:

$$w_k = \frac{\sum n_{hk}}{I_k} \text{ so that } W_k = 10 (w_k)$$

where  $n_{hk}$  = the number of articles per type within journals based on  $n_h > .03N$  where  $N$  = the total number of articles investigated,

$I_k$  = the number of issues investigated within journals,





$w_k$  = the type weight by journal, and

$W_k$  = the resulting type weight by journal as used  
for further calculations.

As the number of articles published by a journal per issue is not directly limited, these variables are not dependent, although there is also not complete independence. Table 4.11 shows the range, mean, and standard deviations of the resulting weights.

TABLE 4.11.--Type of Article.

	Range	Mean	Standard Deviation
Research	0-153	18.0	31.9
Review of literature	0-10	2.3	3.2
Expository	0-90	38.7	23.7

The correlation matrix presented in Table 4.12 shows the intercorrelation between types of articles, while the correlation matrix in Table 4.13 indicates the relationship between type of article and intended readership. It is of interest to note in this table that a high inverse relationship exists between review articles and college teachers. The degree to which public school teachers were the intended readership is highly correlated with number of expository articles, while those most interested in researchers have more research and less expository articles.



TABLE 4.12.--Intracorrelation Matrix for Type of Article.

Research	1.00		
Review of literature	-.199	1.00	
Exposition	-.480**	.074	1.00
	Research	Review of literature	Exposition

\*\*Significant at  $\alpha = .01$  level.

TABLE 4.13.--Intercorrelation Matrix for Type of Article and Intended Readership.

Research	.630**	-.120	-.145	.258	-.261	-.201
Review of literature	.159	-.386*	-.145	-.177	.190	-.181
Expository	-.548**	.007	.087	-.256	.496**	.157
	Researcher	College teacher	Administrator	Counselor	Teacher	Other

\*Significant at  $\alpha = .05$  level.

\*\*Significant at  $\alpha = .01$  level.

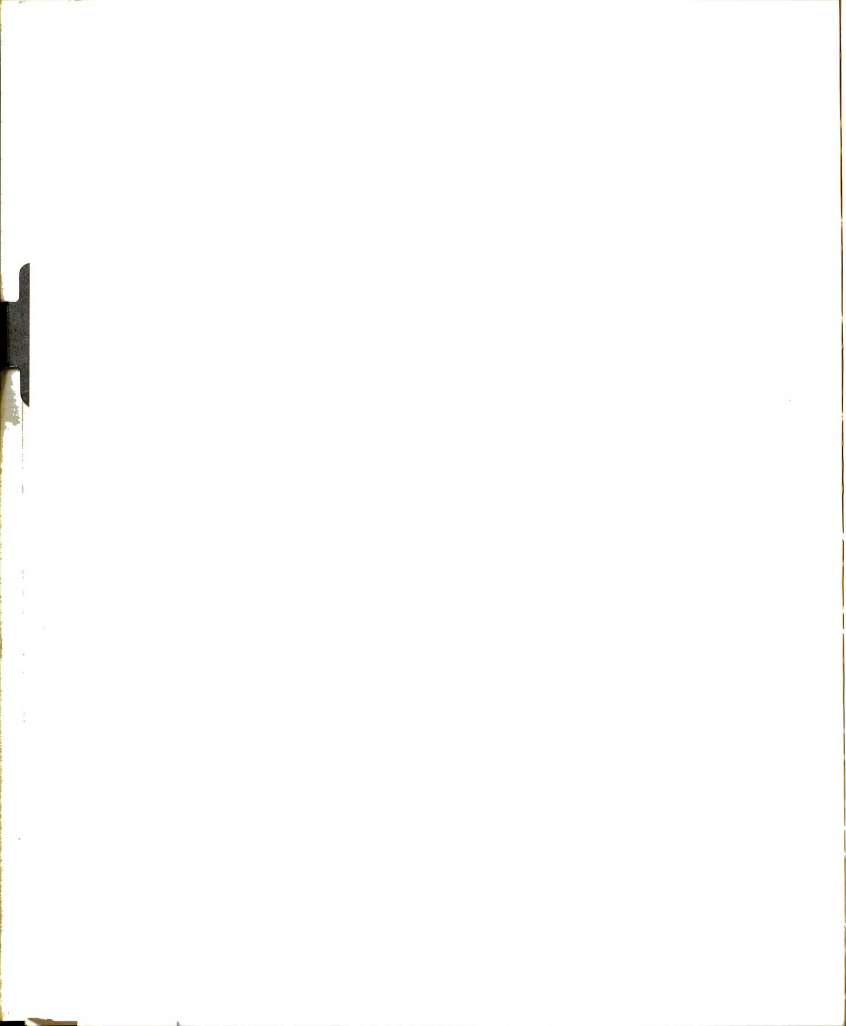
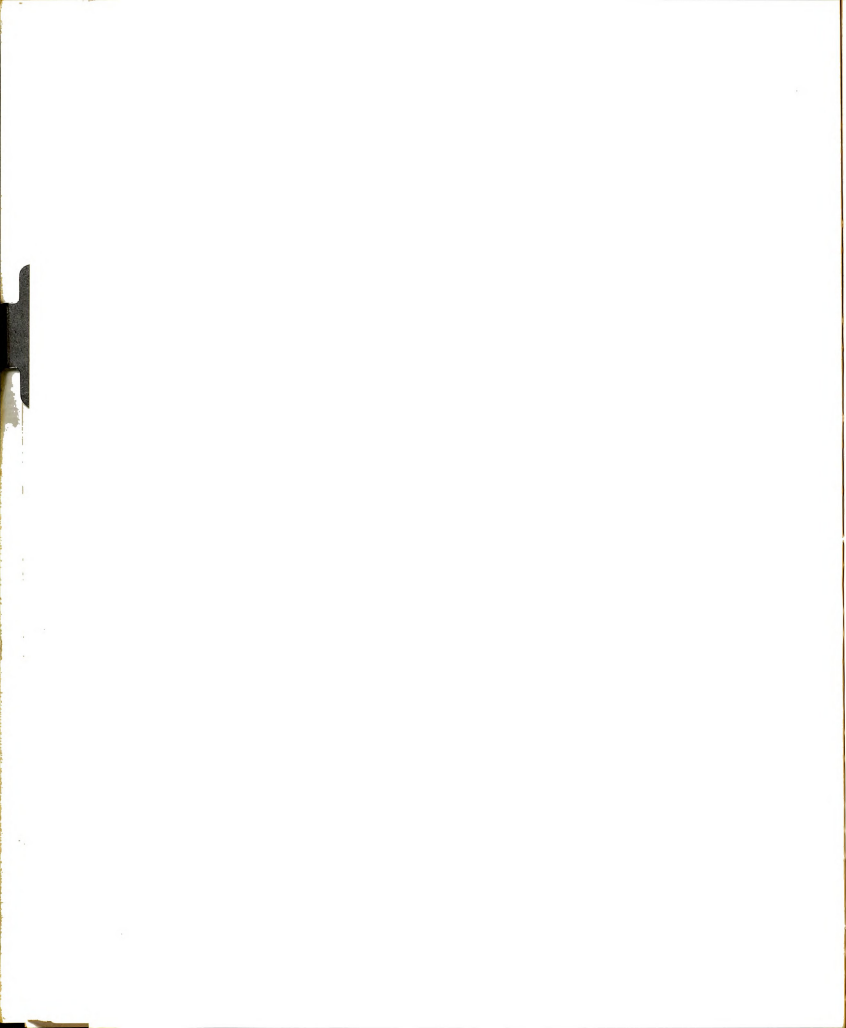


Table 4.14 shows the first and second sets of canonical weights derived for these two sets of variables with canonical R's of .82 and .158, and canonical  $R^2$ 's of .67 and .34, respectively. The first set of weights tends to differentiate the researcher weightings, from other types of readers although primarily from college teachers, in terms of number of research articles, an indication of the quantity of research reports desired by each of the different types of reader.

The second set of weights tends to differentiate counselors and college teachers from other readers, although

TABLE 4.14.--Canonical Weights for Type of Article and Intended Readership.

	First Canonical Weights	Second Canonical Weights
<u>Intended Readership</u>		
Researcher	-.683	-.502
College teacher	.382	.417
Administrator	.290	-.283
Counselor	-.324	.423
Teacher	.165	-.982
Other	.109	-.140
<u>Type of Article</u>		
Research	-.711	-.401
Review of literature	-.452	-.769
Expository	.408	-.759
Canonical R	.816	.584
Canonical $R^2$	.666	.341



primarily from teachers and researchers, in terms of review of literature and expository articles. This indicates that many of the non-research articles which are primarily of interest to teachers are also perceived as being of interest to some researchers, probably those who are most interested in the problems of the classroom teacher. All three types of articles are related to intended readership such that lack of one type of article is not compensated for by another.

Question 5: Is there a relationship between intended readership and adequacy of research reports?

Findings.--Table 4.15 reports the intercorrelation matrix between adequacy of research reports and intended readership. A high positive correlation exists between the adequacy of research reports published and the importance of intended readers who are researchers. It is also of interest to note the medium negative correlation between adequacy of research reports and college teachers, indicating that a journal primarily interested in college teachers as its readership tends to publish less rigorous research reports.

Table 4.16 presents the set of canonical weights that were derived from the preceding correlation matrices. The set of first canonical weights indicates a canonical R of .593 between adequacy of research reports and intended



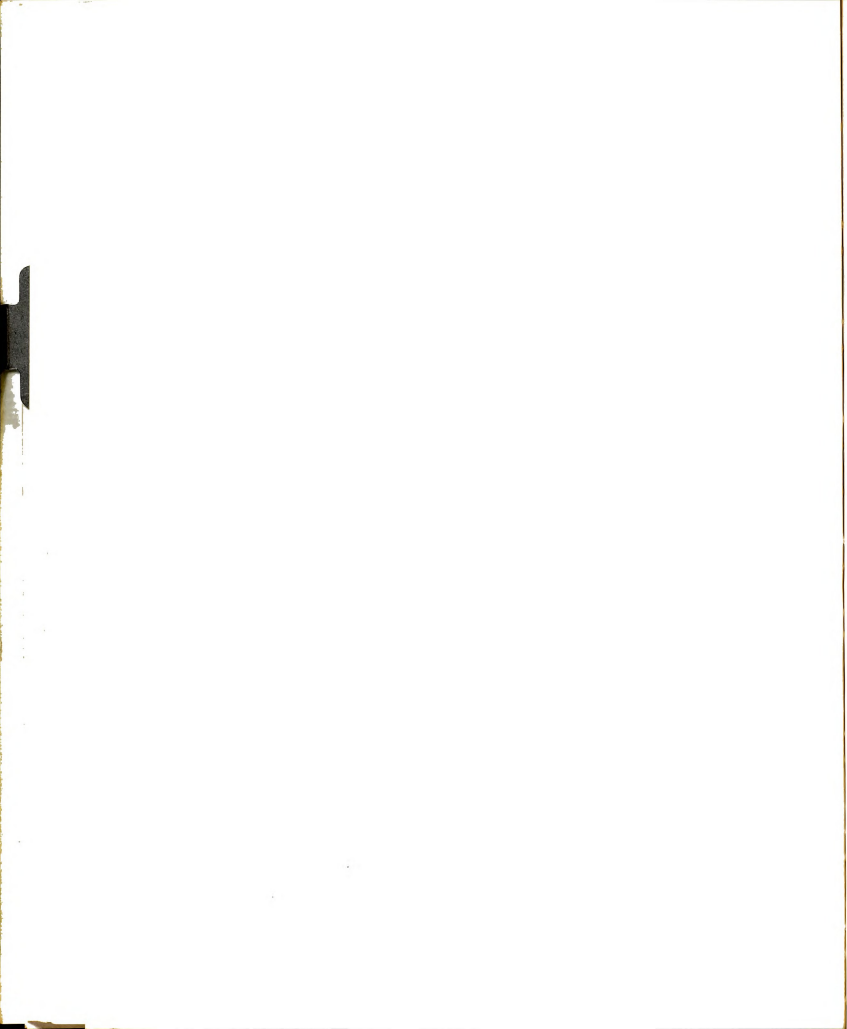


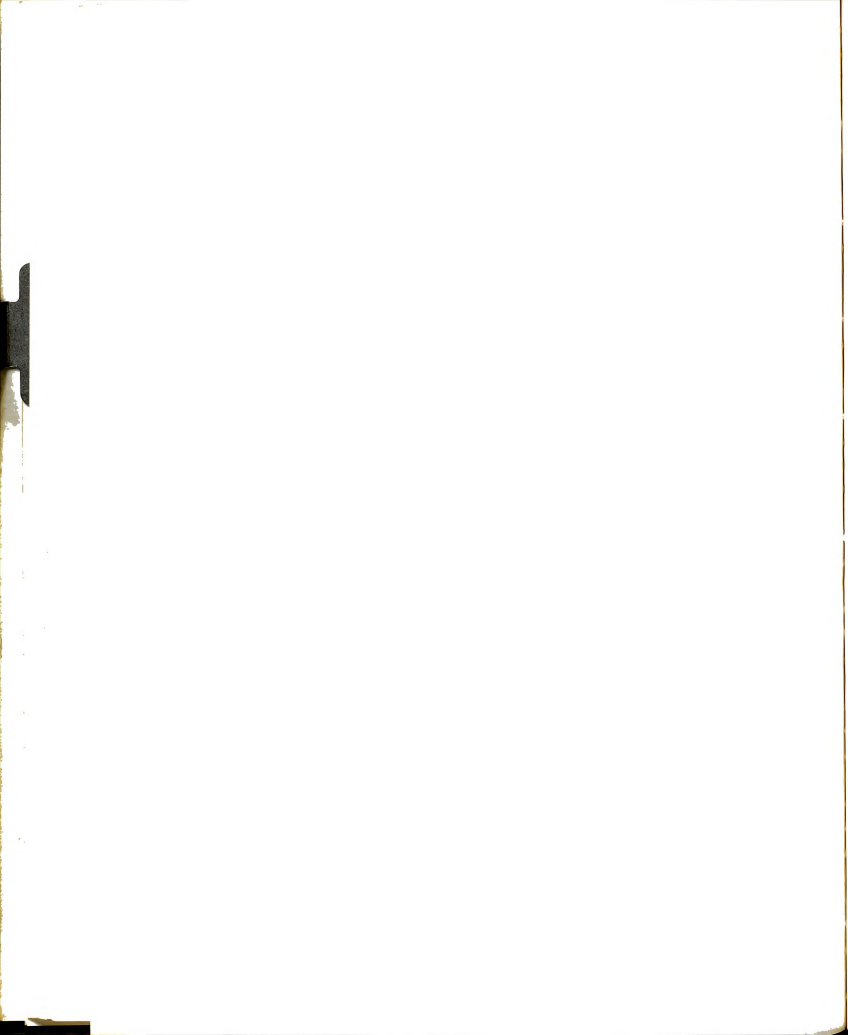
TABLE 4.15.--Intercorrelation Matrix for Adequacy of Research Reports and Intended Readership.

Adequacy of research reports	Researcher	College teacher	Administrator	Counselor	Teacher	Other
	.468*	-.300	-.119	.153	-.141	-.261

\*Significant at  $\alpha = .05$  level.

TABLE 4.16.--Canonical Weights for Adequacy of Research Reports and Intended Readership.

	First Canonical Weights
<u>Intended Readership</u>	
Researcher	.530
College teacher	-.588
Administrator	-.218
Counselor	.402
Teacher	-.117
Other	-.248
Adequacy of research reports	1.000
Canonical R	.593
Canonical $R^2$	.352

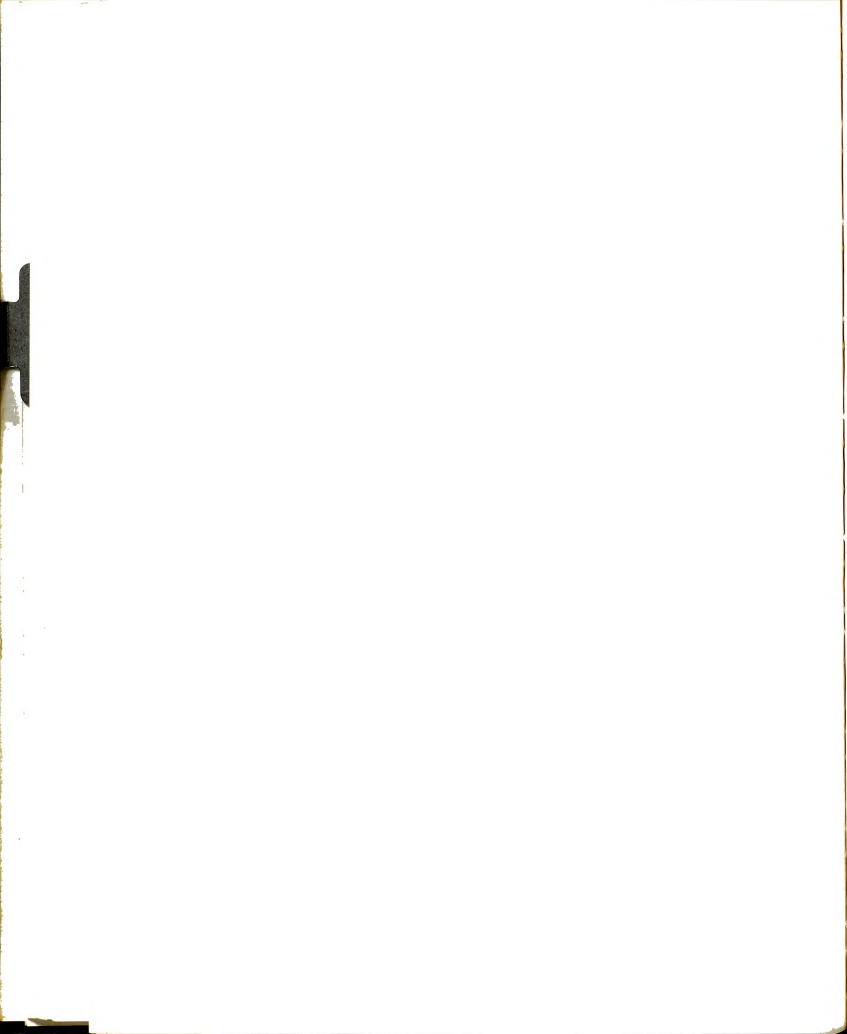


readership, and a canonical  $R^2$  of .352, indicating that 35 percent of the variance in one weighted set of variables is accounted for by the other.

An inspection of the weights indicates that the only positive loadings resulted for researcher and counselor, while a slightly higher negative loading was obtained for college teachers. It would appear that journals which are interested in researchers and counselors as intended readers tend to publish more rigorous research reports than those intended for other types of readers. These two types of reader must, therefore, be expected to make use of the results of the research based on the circumstances under which they were derived. College teachers are expected to be interested only in broad generalities rather than specifics. It appears that there is no set expectation of the needs of other types of readers regarding the rigor required or desired in reports of research.

Question 6: What data collection procedures are significantly related to intended readership?

Findings.--Data collection procedures included the relative weights of seven methods of collecting data reported in research reports. As more than one method was used in any one study, the seven resulting variables were not mutually exclusive, but were exhaustive. These weights were derived as defined in Chapter III by the application of the following formula:



$$w_k = \frac{\sum n_{hk}}{I_k} \text{ so that } \bar{w}_k = 10 (w_k)$$

where  $n_{hk}$  = the number of articles reporting that procedure within journals based on  $n_h > .03 N$   
 where  $N$  = the total number of procedures reported,

$I_k$  = the number of issues investigated within the journal,

$w_k$  = the procedure weight by journal, and

$\bar{w}_k$  = the resulting procedure weight by journal as used for further calculations.

These variables, although basically independent, were slightly dependent in the respect that some procedures lend themselves to being used in conjunction with certain procedures more than others. However, this slight dependence did not affect the analysis used. Table 4.17 shows the range, mean, and standard deviation of each of the variables within data collection procedures.

TABLE 4.17.--Data Collection Procedures.

	Range	Mean	Standard Deviation
Standardized test	0-50	6.4	14.3
Questionnaire	0-40	6.9	9.5
Interview	0-25	2.9	5.4
Observation	0-103	4.6	19.4
Pre-existing records	0-12	1.6	3.2
Experimental design	0-103	6.2	20.0
Other	0-12	2.3	3.7

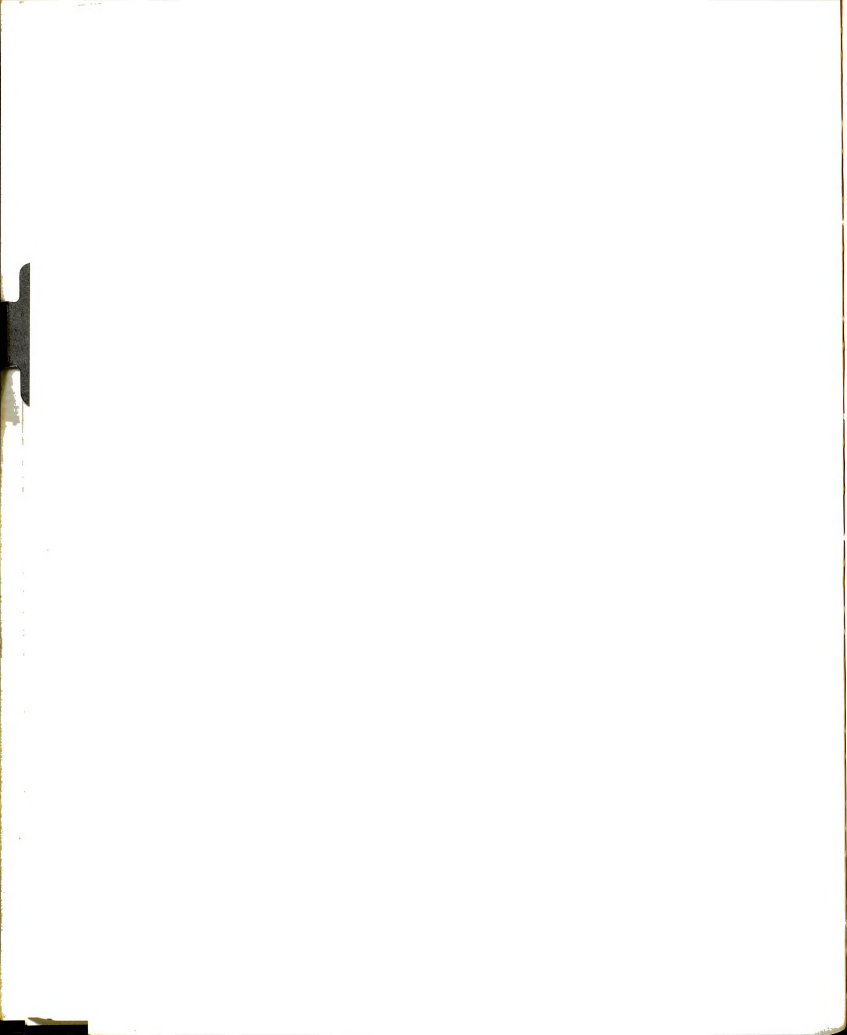


Table 4.18 presents the intracorrelation matrix for data collection procedures. It is of interest to note that the only correlations not significant are between observation and questionnaire, between observation and other, and between observation and pre-existing records. Apparently, when observation is used as a data collection procedure, it is not often used in conjunction with these other methods.

TABLE 4.18.--Intracorrelation Matrix for Data Collection Procedures.

Standardized tests	1.00						
Questionnaire	.692**	1.00					
Interview	.829**	.672**	1.00				
Observation	.631**	-.040	.380*	1.00			
Pre-existing records	.801**	.804**	.751**	.233	1.00		
Experimental design	.802**	.195	.572**	.962**	.435*	1.00	
Other	.807**	.735**	.684**	.358	.700	.521**	1.00

Standardized tests	Questionnaire	Interview	Observation	Pre-existing records	Experimental design	Other
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\*Significant at  $\alpha = .05$  level.

\*\*Significant at  $\alpha = .01$  level.



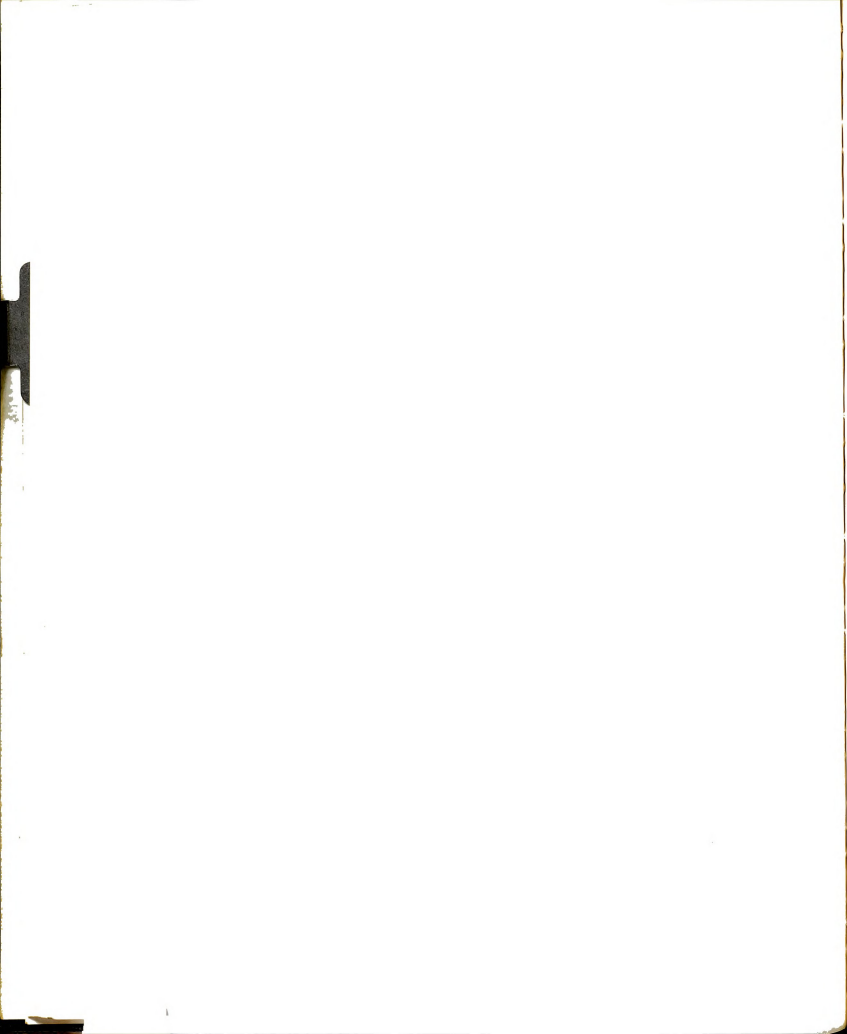


Table 4.19 presents the intercorrelation matrix for data collection procedures reported and intended readership. It is of interest to note here that researcher is highly correlated with all procedures and counselor is highly correlated with standardized tests, questionnaire use, pre-existing records, and other. There are no other significant correlations, although 22 of the remaining 28 correlations are in the negative direction.

TABLE 4.19.--Intercorrelation Matrix for Data Collection Procedures and Intended Readership.

	Researcher	College teacher	Administrator	Counselor	Teacher	Other
Standardized tests	.648**	.049	-.122	.424*	-.248	-.177
Questionnaire	.479**	.170	-.012	.585**	-.157	-.232
Interview	.705**	-.063	-.230	.149	-.265	-.197
Observation	.408*	-.238	-.159	-.058	-.182	-.091
Pre-existing records	.682**	.027	-.076	.509**	-.198	-.186
Experimental design	.551**	-.151	-.156	.110	-.224	-.128
Other	.567**	.004	-.035	.420*	-.179	-.231

\*Significant at  $\alpha = .05$  level.

\*\*Significant at  $\alpha = .01$  level.

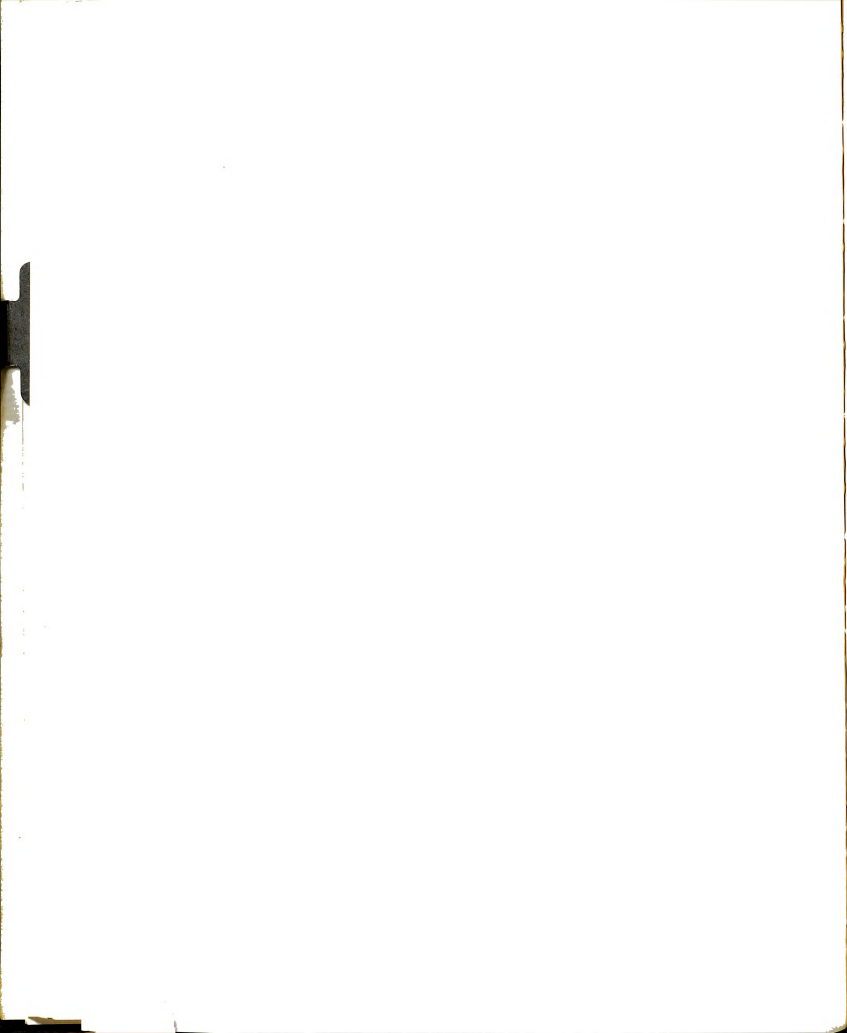
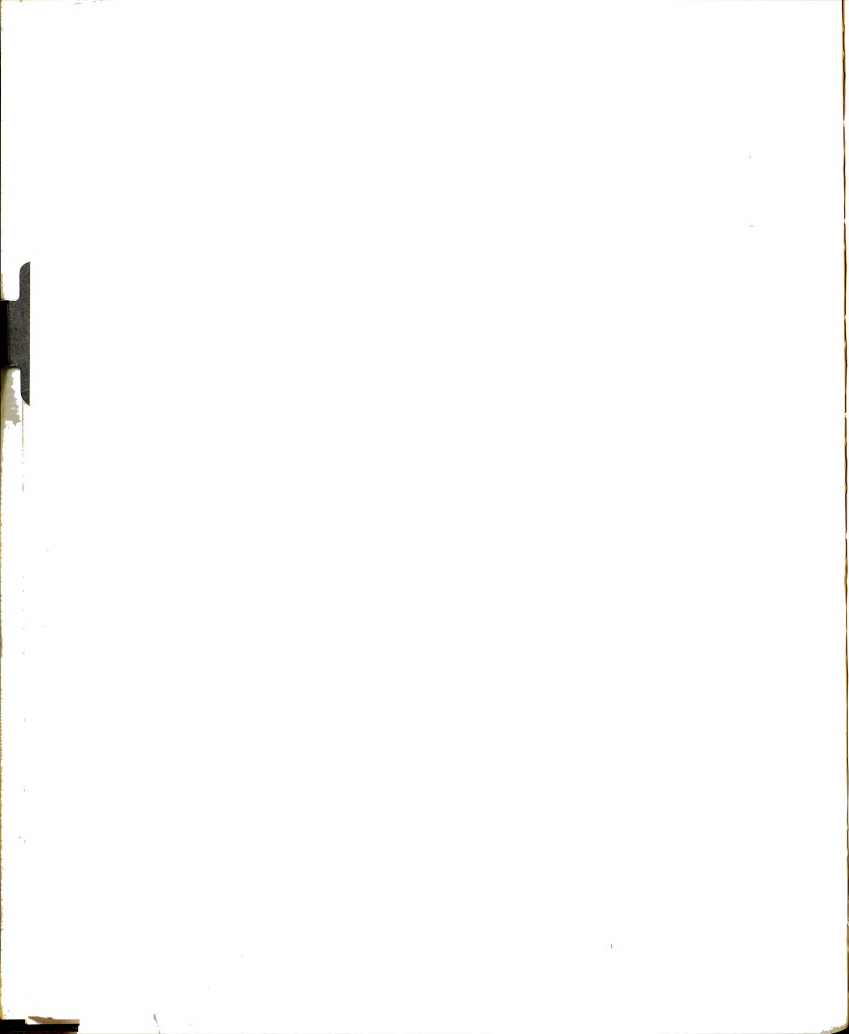


Table 4.20 presents the first two sets of canonical weights for data collection procedures. The first set of weights tends to differentiate counselor from all other types of reader, with the remaining types having only very small weights. This differentiation is made by observation and interview having equal, but opposite weights of experimental design and standardized tests. This indicates that counselors are seen as primarily interested in research employing more rigorous or at least more controlled

TABLE 4.20.--Canonical Weights for Data Collection Procedures and Intended Readership.

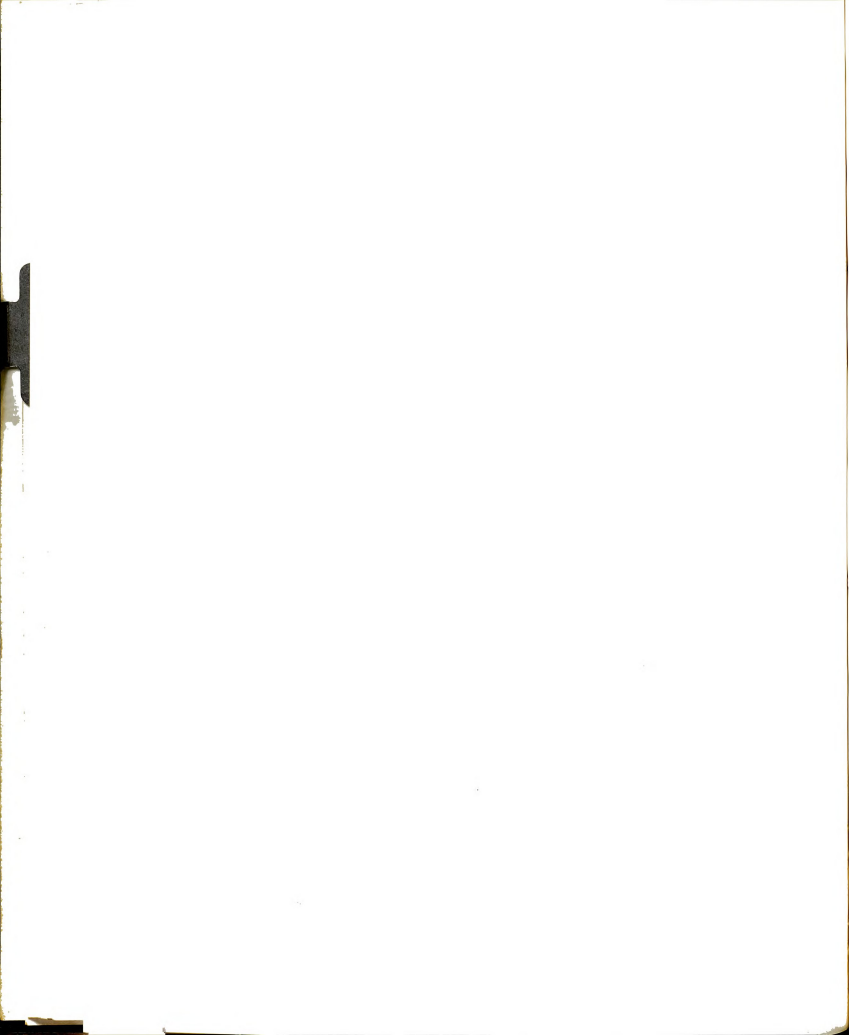
	First Canonical Weights	Second Canonical Weights
<u>Intended Readership</u>		
Researcher	-.029	-.891
College teacher	-.234	.330
Administrator	.221	.112
Counselor	-.972	.077
Teacher	.019	.055
Other	.031	-.006
<u>Data Collection Procedures</u>		
Standardized tests	-.986	2.427
Questionnaire	.030	-.103
Interview	1.274	-.904
Observation	3.614	.228
Pre-existing records	-.136	-.902
Experimental design	-3.531	-1.683
Other	.053	-.402
Canonical R	.908	.857
Canonical R <sup>2</sup>	.824	.734



studies while those employing less control such as interview and observation are seen as being of interest to administrators. In the second set of weights, researcher is differentiated by standardized tests in opposition to experimental design, interview, and pre-existing records. This indicates that most research studies in journals with interest in researchers as opposed to other types of readers tend to report research which has taken place in a controlled situation, experimental design, but that does not necessarily lend itself to using controlled instruments for measurement such as standardized tests, probably because of the uniqueness of the situations studied. The first set of canonical weights yielded a canonical R of .91 and the second set a canonical R of .86, with canonical  $R^2$ 's of .82 and .73, respectively.

Question 7: What statistical methods are significantly related to intended readership?

Findings.--Statistical methods reported included the relative weights of 17 types of statistical analysis reported in research reports. As more than one type of analysis was used in any one study, the 17 resulting variables were not mutually exclusive but were exhaustive. These weights were derived as defined in Chapter III by the application of the following formula:



$$w_k = \frac{\sum n_{hk}}{I_k} \text{ so that } W_k = 10 (w_k)$$

where  $n_{hk}$  = the number of articles reporting that statistic within journals based on  $n_h > .03 N$   
 where  $N$  = the total number of statistics reported,

$I_k$  = the number of issues investigated within the journal,

$w_k$  = the statistic weight by journal, and

$W_k$  = the resulting statistic weight by journal as used for further calculations.

These variables, although basically independent, were slightly dependent in the respect that some methods of analysis lent themselves to being used in conjunction with certain methods more than others. However, this slight possible dependence in no way affected the analysis of the study. Table 4.21 shows the range, mean, and standard deviation of each of the variables within statistical methods.

Table 4.22 shows the intracorrelation matrix for statistical methods reported. The frequent high intracorrelations show that most types of analysis are not reported separately but in conjunction with several different measures. It is of interest to note that factor analysis is the only statistical method reported which



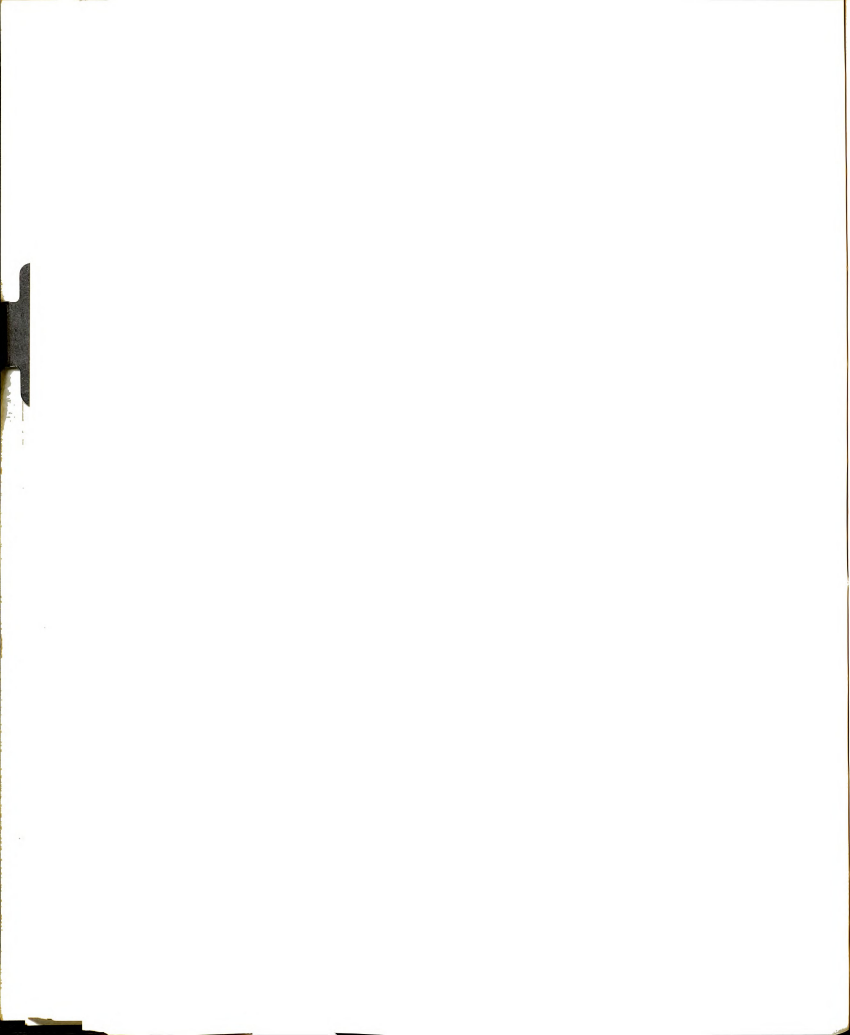


TABLE 4.21.--Statistical Techniques Reported.

	Range	Mean	Standard Deviation
None	0-13	.6	2.5
Raw scores	0-5	1.0	1.6
Percent	0-23	4.1	5.2
Mean	0-20	2.4	4.8
Standard deviations	0-12	1.3	2.7
Other descriptive	0-20	2.2	4.3
Pearson correlations	0-43	4.4	11.0
Other correlations	0-23	2.4	5.7
T-test	0-40	3.8	8.8
Anaysis of variance	0-103	7.2	20.8
Analysis of covariance	0-13	1.5	3.5
Post hoc procedures	0-30	2.9	7.5
Factor analysis	0-22	1.5	4.3
Other analytic	0-28	2.7	6.5
Chi square	0-15	1.9	3.9
Other non-parametric	0-43	2.8	8.4
Reliability	0-28	3.0	7.0

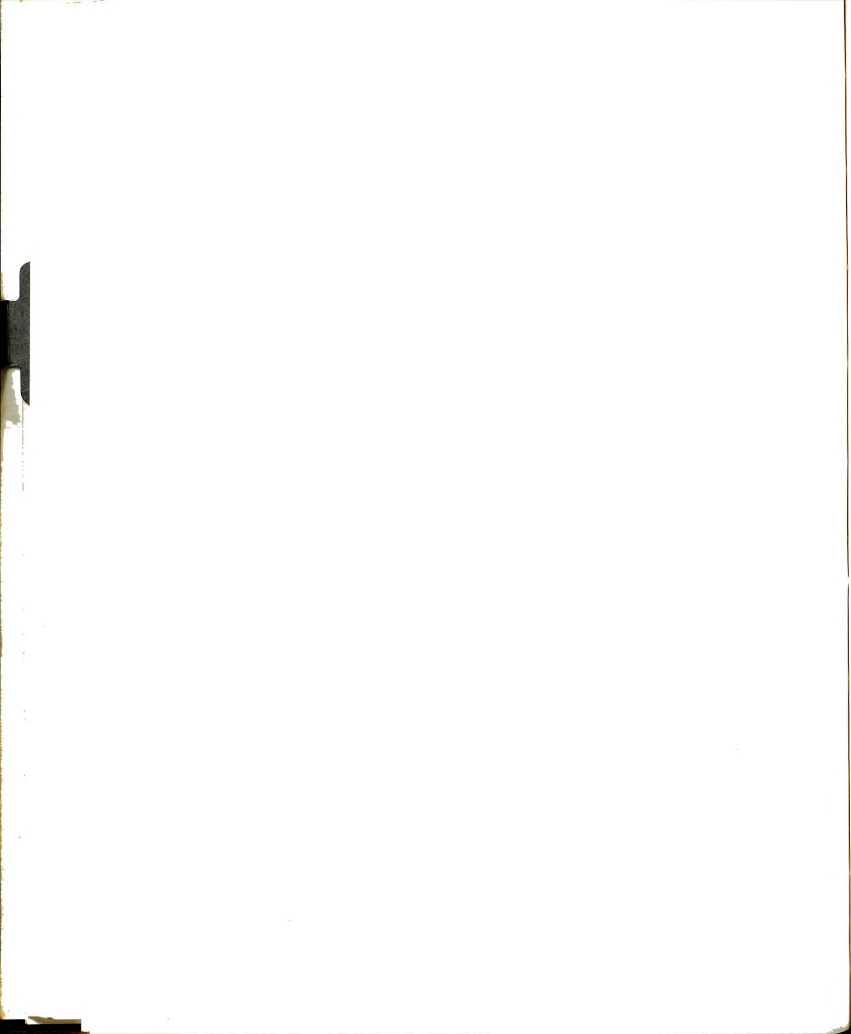
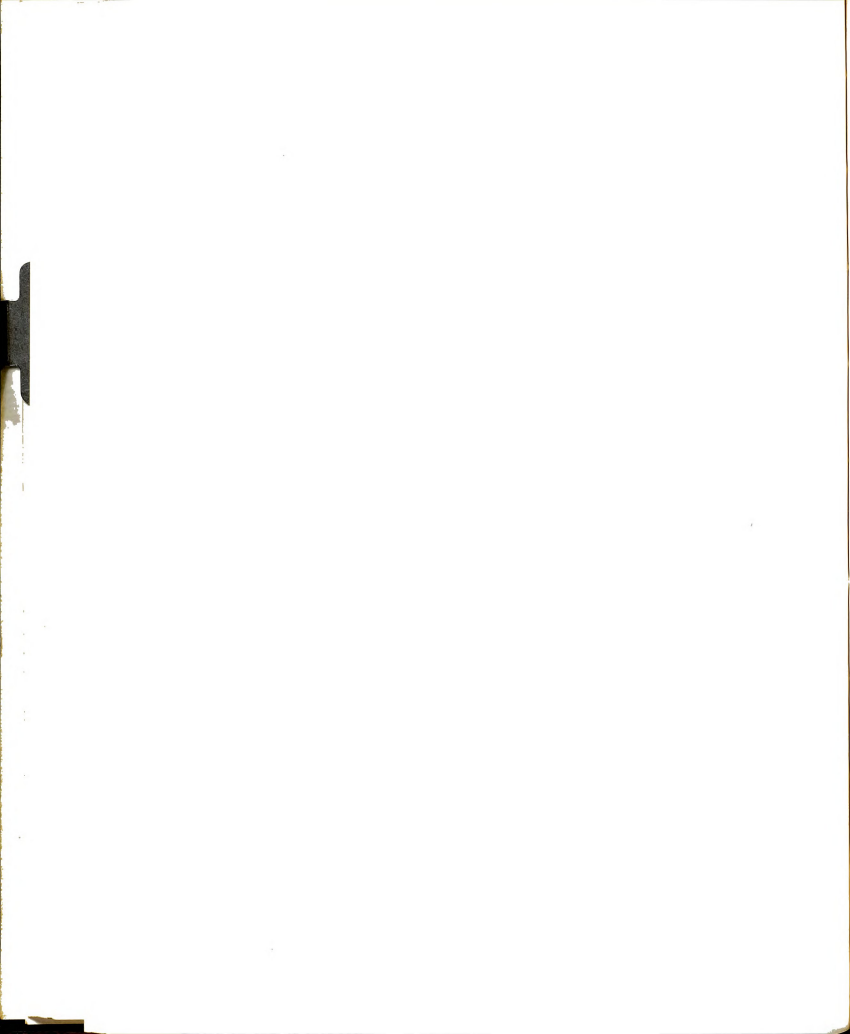


TABLE 4.22.--Intracorrelation Matrix for Statistical Methods Reported.

	None	Raw scores	Percents	Mean	Standard deviation	Other descriptive	Pearson correlation	Other correlations	T-test	Analysis of variance	Analysis of covariance	Post hoc procedures	Factor analysis	Other analytic	Chi square	Other non-parametric	Reliability
None	1.00																
Raw scores		1.00															
Percents			1.00														
Mean				1.00													
Standard deviation					1.00												
Other descriptive						1.00											
Pearson correlation							1.00										
Other correlations								1.00									
T-test									1.00								
Analysis of variance										1.00							
Analysis of covariance											1.00						
Post hoc procedures												1.00					
Factor analysis													1.00				
Other analytic														1.00			
Chi square															1.00		
Other non-parametric																1.00	
Reliability																	1.00

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.



is not highly correlated with other statistical methods while none, being the non-reporting of any kind of statistic, also has no correlation with the statistical methods. Table 4.23 shows the intercorrelation matrix between statistical methods reported and intended readership. It is of interest to note that researcher is highly correlated with all types of statistical methods, but not with raw scores or none, and counselor is highly correlated with mean, standard deviation, reliability, and factor analysis. No other correlations are significant, although most of the remaining ones tend in a negative direction.

Table 4.24 presents the first, second, and third sets of canonical weights, with canonical  $R$ 's of .98, .97, and .75, respectively. This results in respective canonical  $R^2$ 's of .96, .95, and .57. The first set of canonical weights tends to set the researcher apart from the other types of readers. This is accomplished by high weights for analysis of variance, chi square, and T-test, and high negative weights for reliability, other non-parametric techniques, post hoc techniques, and other analytic techniques, indicating a higher occurrence of the more complex techniques and a lower occurrence of the more common techniques. The second set of canonical weights tends to set off counselor from the other types of readers through large weights for analysis of variance, other correlations,

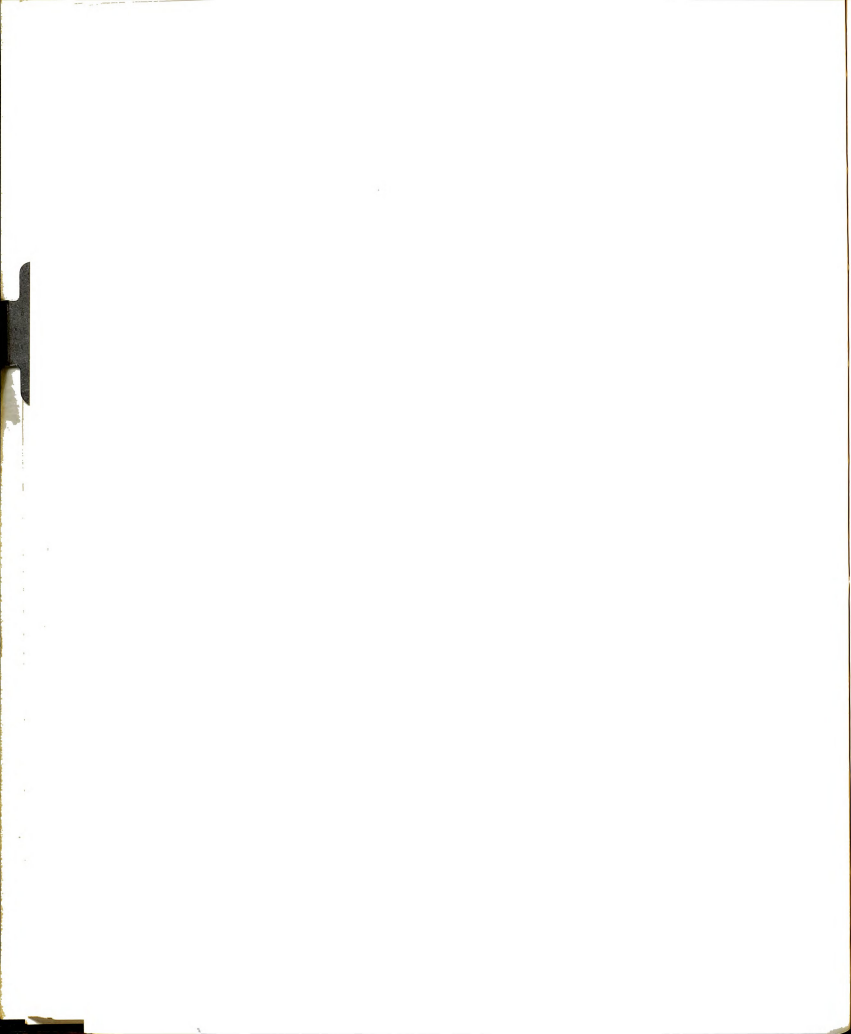


TABLE 4.23.--Intercorrelation Matrix for Statistical Methods Reported and Intended Readership.

	Researcher	College teacher	Administrator	Counselor	Teacher	Other
None	-.132	-.246	.320	.030	-.096	-.038
Raw scores	.190	.063	-.222	.118	.171	-.183
Percents	.389*	-.213	-.168	.166	-.069	-.221
Mean	.581**	-.016	-.079	.402*	-.261	-.184
Standard deviation	.529**	.146	.007	.693**	-.234	-.191
Other descriptive	.657**	-.152	-.129	.114	-.231	-.197
Pearson correlation	.657**	-.074	-.219	.086	-.279	-.167
Other correlations	.604**	-.106	-.190	.104	-.261	-.145
T-test	.596**	-.060	-.182	.243	-.229	-.171
Analysis of variance	.583**	-.113	-.159	.186	-.238	-.141
Analysis of covariance	.706**	.038	-.157	.177	-.240	-.164
Post hoc procedures	.688**	.003	-.140	.320	-.278	-.163
Factor analysis	.484**	.193	.092	.820**	-.190	-.124
Other analytic	.634**	-.240	-.276	-.077	-.288	-.163
Chi square	.671**	-.002	-.163	.274	-.304	-.190
Other non-parametric	.565**	-.190	-.223	-.042	-.250	-.136
Reliability	.595**	.029	-.109	.455*	-.243	-.171

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.



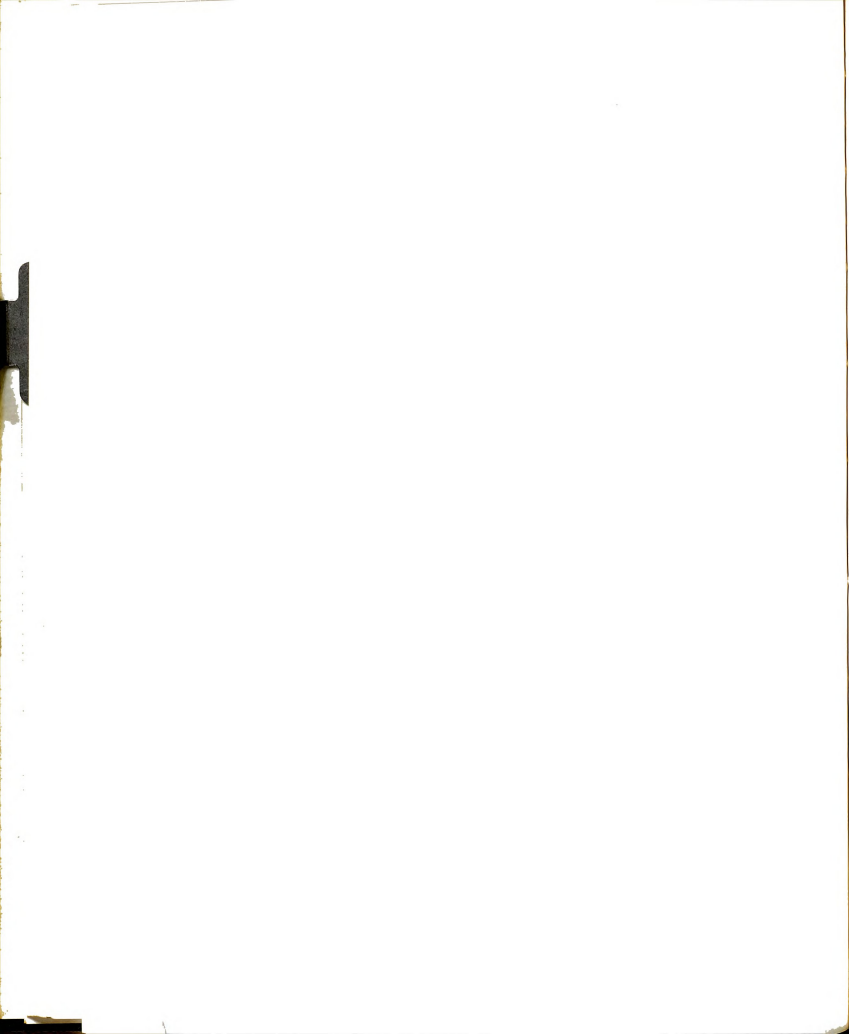
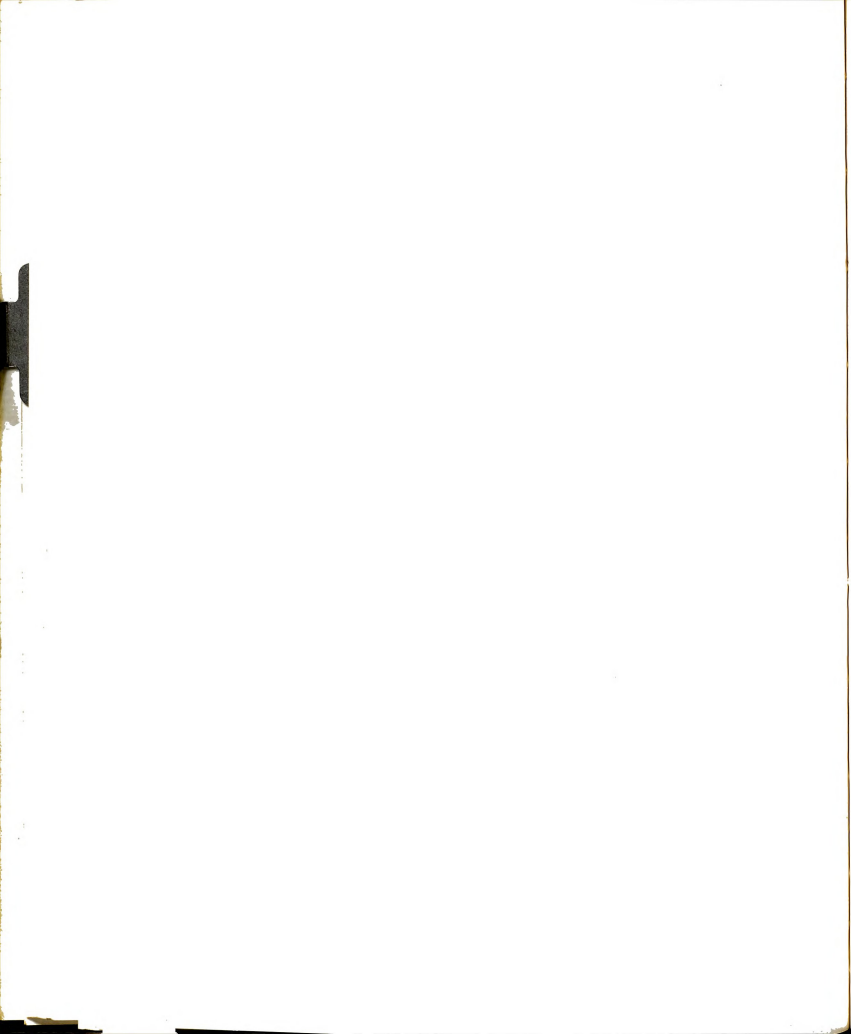


TABLE 4.24.--Canonical Weights for Statistical Methods  
Reported and Intended Readership.

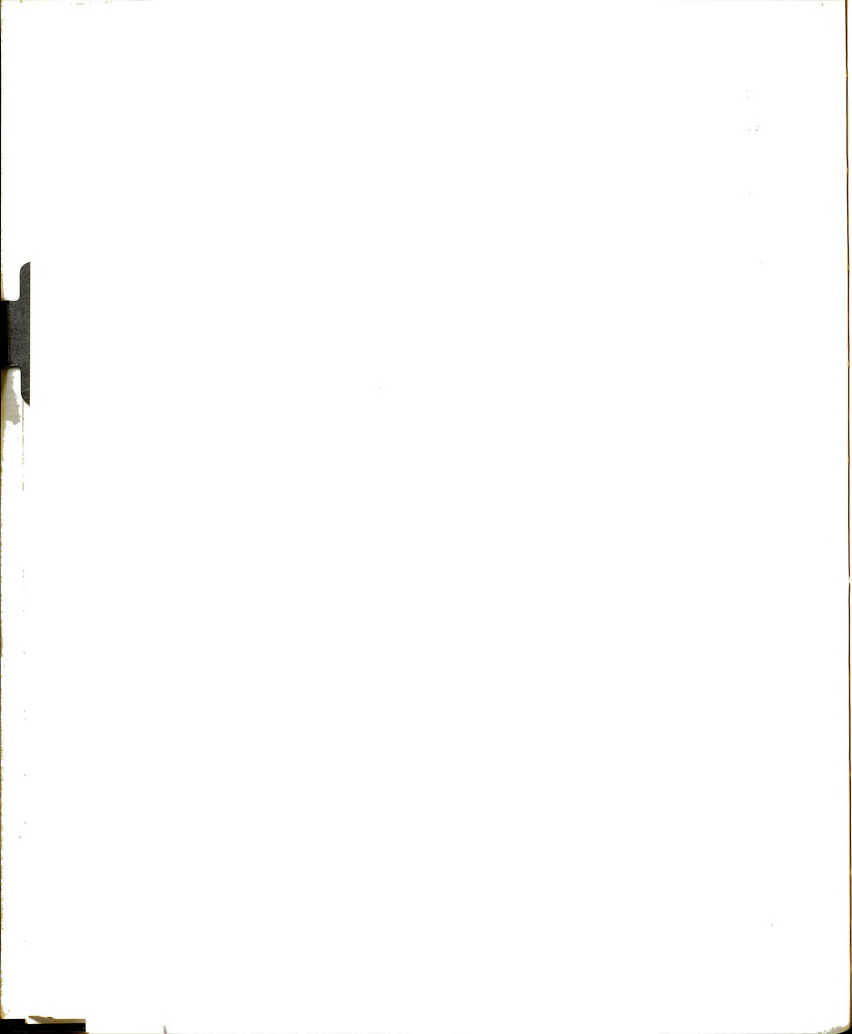
	First Canonical Weights	Second Canonical Weights	Third Canonical Weights
<u>Intended Readership</u>			
Researcher	-.874	-.436	.758
College teacher	.109	.028	.436
Administrator	.313	-.266	.159
Counselor	-.243	1.126	-.272
Teacher	.043	-.078	1.005
Other	-.113	-.024	.890
<u>Statistical Techniques Reported</u>			
None	.064	-.009	-.957
Raw scores	.100	.059	-.889
Percents	-.339	.035	4.020
Mean	-.727	-1.454	-3.323
Standard deviation	-.914	1.451	-7.308
Other descriptive	.638	-.646	-1.912
Pearson correlation	.553	-.321	.676
Other correlation	.738	1.514	4.128
T-test	2.692	-.643	3.318
Analysis of variance	5.645	5.737	16.604
Analysis of covariance	-1.564	-.218	-3.323
Post hoc procedures	-3.061	-.987	3.885
Factor analysis	.100	.164	4.984
Other analytic	-2.772	-1.613	-7.718
Chi square	4.146	1.093	14.196
Other non-parametric	-3.344	-2.158	-10.766
Reliability	-3.362	-1.762	-17.480
Canonical R	.982	.972	.753
Canonical R <sup>2</sup>	.964	.945	.567



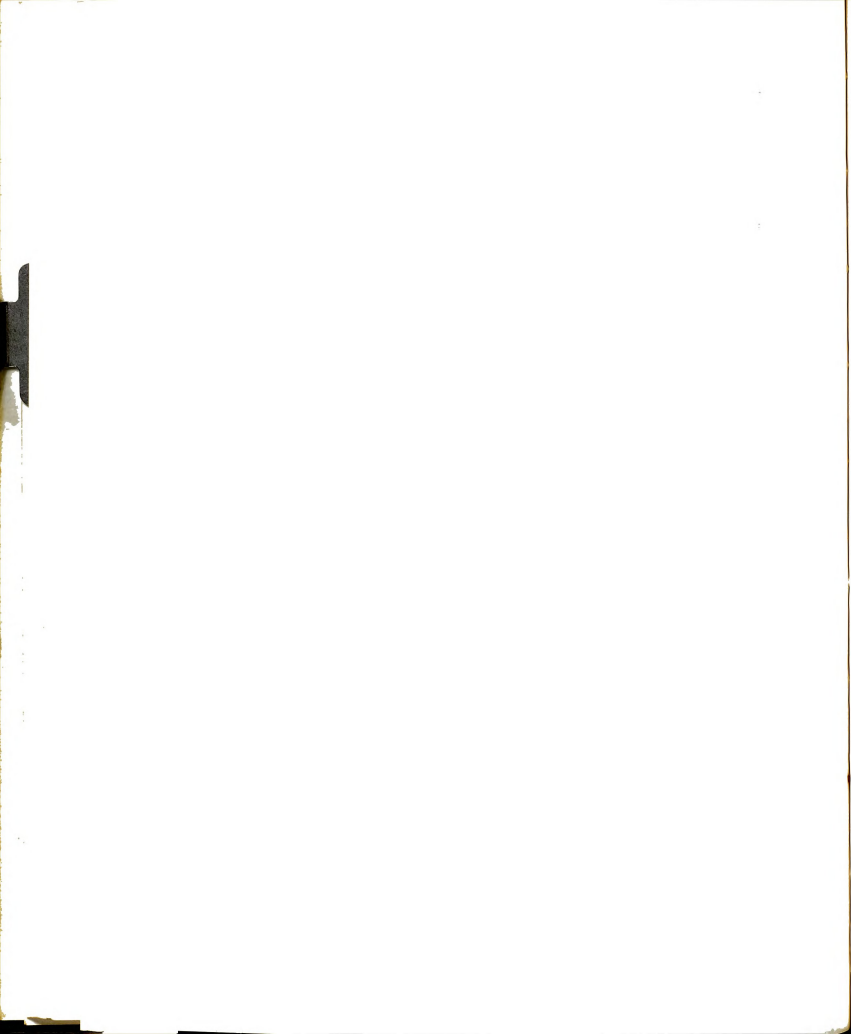
standard deviations, and chi square, and large negative weights for other non-parametric techniques, reliability, other analytic techniques, and means, indicating a higher reliance by teacher-oriented research on analysis of variance and chi square probably because they are easily adaptable to that type of situation while being easy to compute and understand. On the other hand, little emphasis is placed on the other mentioned techniques, probably because they are thought by teachers to be irrelevant or difficult to understand.

Question 8: What publication policies are significantly related to intended readership?

Findings.--Publication policies included six continuous variables, one ordinal variable, eight categorical variables which were treated as ordinal for purposes of analysis. The continuous variables were percent of articles published, average time lag, average number of readers to accept a manuscript for publication, average number of readers to reject a manuscript for publication, percent rewritten for reasons other than length, and length restrictions, each of which was taken directly from the editor responses to the questionnaire. Of the categorical variables considered ordinal, editor able to accept, editor able to reject, use of evaluation guide, manuscript form required, page charge, and early publication fees were



obtained directly from the editor responses to the questionnaire where the response required was of the yes-no type. As there were, therefore, only two levels for each of these variables, each was treated as ordinal for analysis purposes based on the assumption of no real difference resulting from a re-ordering of the levels, other than direction. Type reviewers, taken directly from the editor's response to the questionnaire, was treated as ordinal for the purposes of analysis based on the assumption of an underlying continuum of flexibility in the evaluation of submitted manuscript with the use of a review board being considered the least flexible and the use of neither a review board or group of expert consultants used exclusively as being the most flexible. Manuscript distribution basis, taken directly from the editor's response to the questionnaire and coded as described in Chapter III, was treated as ordinal for the purposes of analysis based on the assumption of an underlying continuum of evaluator competence in the topic of the manuscript being evaluated. It was assumed that evaluator interest in the topic would lead to greater general competence and other than the stated methods would result in less general competence. More than one of the above was then placed in the position indicating least expected competence as there appeared to be no pattern to the responses other than at least one of the multiple responses appearing in the lower competence



end of the continuum. Table 4.25 shows the range, mean, and standard deviation of each of the variables included in publication policies.

Table 4.26 presents the intracorrelation matrix for publication policies. In this table are presented three extremely high correlations as follows: (1) between the editors' ability to accept or reject an article, (2) between the average number of reviewers to accept or reject an article, and (3) between early publication fees and page charge.

Table 4.27 presents the intercorrelation matrix for publication policies and intended readership. It is of interest to note that for researcher the only policies which are highly related are the percent of articles requested to be rewritten, the reviewer's use of an evaluation form, and a specific manuscript form required. The only other high correlations were between college teachers and use of blind reviews, and between college teachers and manuscript form required.

Table 4.28 presents the first, second, third, and fourth sets of canonical weights for publication policies and intended readership. The first set of weights tends to differentiate college teacher from both "other" and researcher through high positive weights for number of readers to accept, use of blind reviews, and page charge, and high negative weights for percent requested rewritten



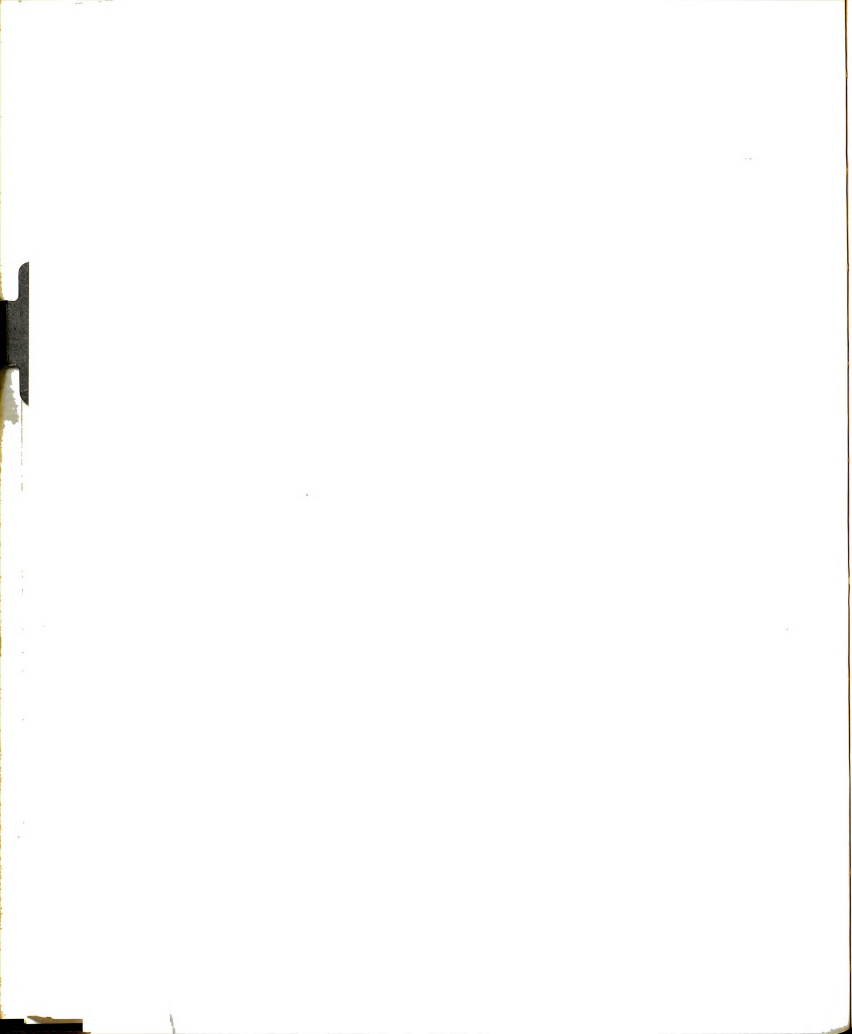


TABLE 4.25.--Publication Policies.

	Range	Mean	Standard Deviation
Percent of articles published	5-99	28.8	30.4
Average time lag	3-20	6.7	5.2
Editor able to accept	1-2	1.2	.5
Editor able to reject	1-2	1.1	.5
Type reviewers	1-3	2.0	1.2
Use of blind reviews	1-4	2.4	1.8
Average number of readers to accept	1-15	2.9	2.7
Average number of readers to reject	1-15	2.8	2.8
Manuscript distribution basis	1-7	4.0	2.9
Percent rewritten	1-100	32.8	33.9
Use of evaluation guide	1-2	1.3	.6
Manuscript form required	1-2	1.2	.6
Length restrictions	0-50	10.0	12.5
Page charge	1-2	1.8	.5
Early publication fees	1-2	1.8	.6

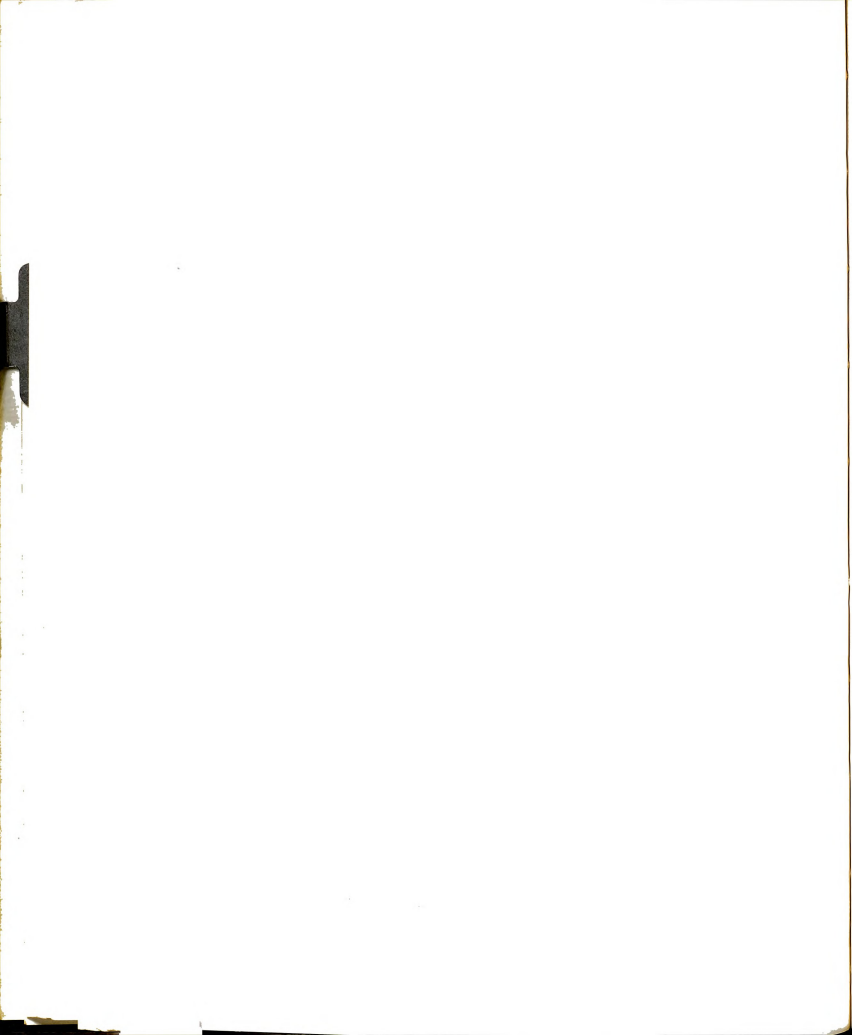


TABLE 4.26.--Intracorrelation Matrix for Publication Policies.

	Percent of articles published	Average time lag	Editor able to accept	Editor able to reject	Type reviewers	Use of blind reviews	Average number of readers to accept	Average number of readers to reject	Manuscript distribution basis	Percent rewritten	Use of evaluation guide	Manuscript form required	Length restrictions	Page charge	Early publication fees
Percent of articles published	1.00														
Average time lag	.169	1.00													
Editor able to accept	.202	.518**	1.00												
Editor able to reject	.231	.387*	.939**	1.00											
Type reviewers	.237	.051	.279	.233	1.00										
Use of blind reviews	.374*	.200	.110	.173	.643**	1.00									
Average number of readers to accept	.004	-.050	.485**	.529**	.105	-.018	1.00								
Average number of readers to reject	.053	-.035	.447*	.487**	.072	-.054	.979**	1.00							
Manuscript distribution basis	.046	.110	.277	.361	.270	.144	.451*	.449*	1.00						
Percent rewritten	.113	.346	.261	.174	-.022	-.102	.476**	.515**	.207	1.00					
Use of evaluation guide	.387*	.113	.433*	.483**	.311	.397*	.346	.339	-.043	.170	1.00				
Manuscript form required	.351	-.102	.229	.266	.657**	.611**	.187	.154	.111	-.063	.613**	1.00			
Length restrictions	-.200	.109	.219	.285	-.058	-.088	.644**	.673**	.389*	.516**	.049	-.012	1.00		
Page charge	.231	.332	.480**	.479**	.530**	.430*	.229	.215	.390	.207	.606**	.603**	.181	1.00	
Early publication fees	.178	.253	.365	.355	.458*	.468*	.217	.201	.222	.225	.613**	.607**	.164	.943**	1.00

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.

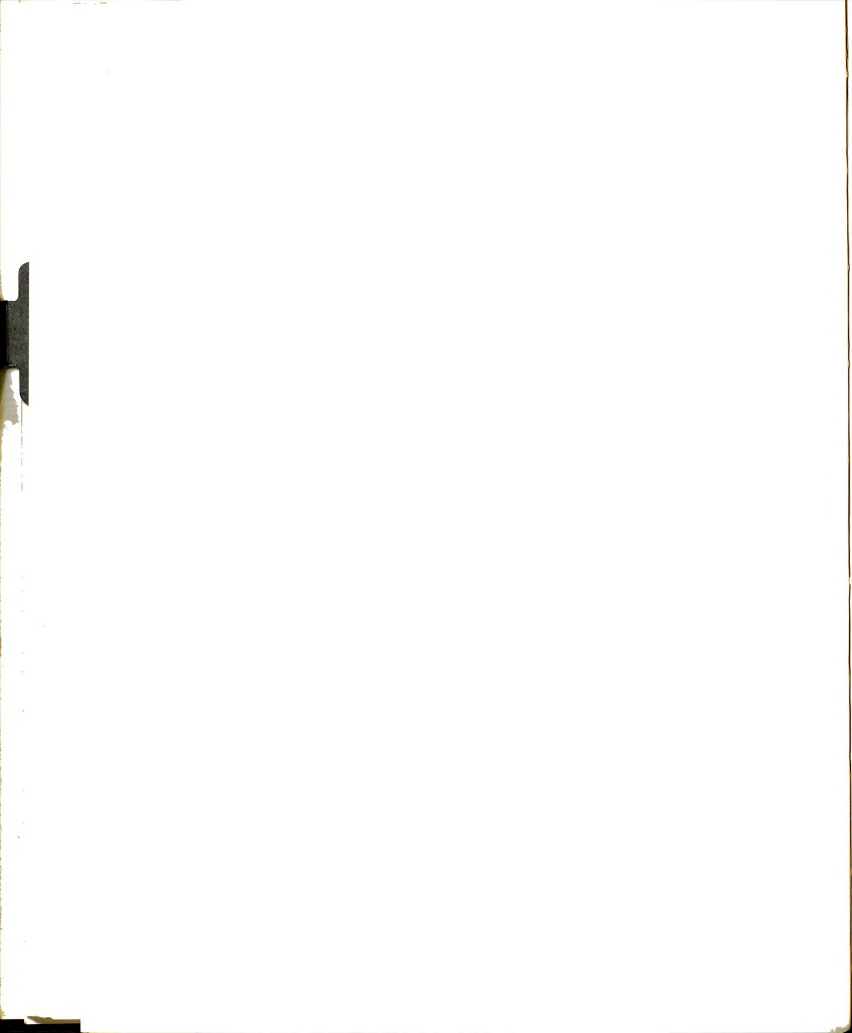


TABLE 4.27.--Intercorrelation Matrix for Publication Policies and Intended Readership.

Percent of articles published	-.364	-.140	-.038	-.222	.287	.045
Average time lag	.300	.177	-.282	.006	-.053	-.263
Editor able to accept	.036	.176	-.149	-.033	.072	-.341
Editor able to reject	-.095	.168	-.097	-.003	.132	-.328
Type reviewers	-.178	.316	.121	-.192	-.057	-.014
Use of blind reviews	-.321	.432	.134	-.218	.000	-.045
Average number of readers to accept	.029	-.051	-.027	.069	-.165	-.048
Average number of readers to reject	.026	-.157	-.058	.060	-.125	-.032
Manuscript distribution basis	.110	.065	.163	.322	-.199	.061
Percent rewritten	.415*	-.294	-.243	-.094	-.171	-.033
Use of evaluation guide	-.485**	.032	-.148	-.185	.306	-.281
Manuscript form required	-.454*	.395*	-.063	-.194	.143	.067
Length restrictions	.282	-.171	.040	.144	-.325	.018
Page charge	-.263	.286	-.226	-.018	.266	-.355
Early publication fees	-.236	.348	-.249	-.038	.275	-.340
	Researcher	College teacher	Administrator	Counselor	Teacher	Other

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.

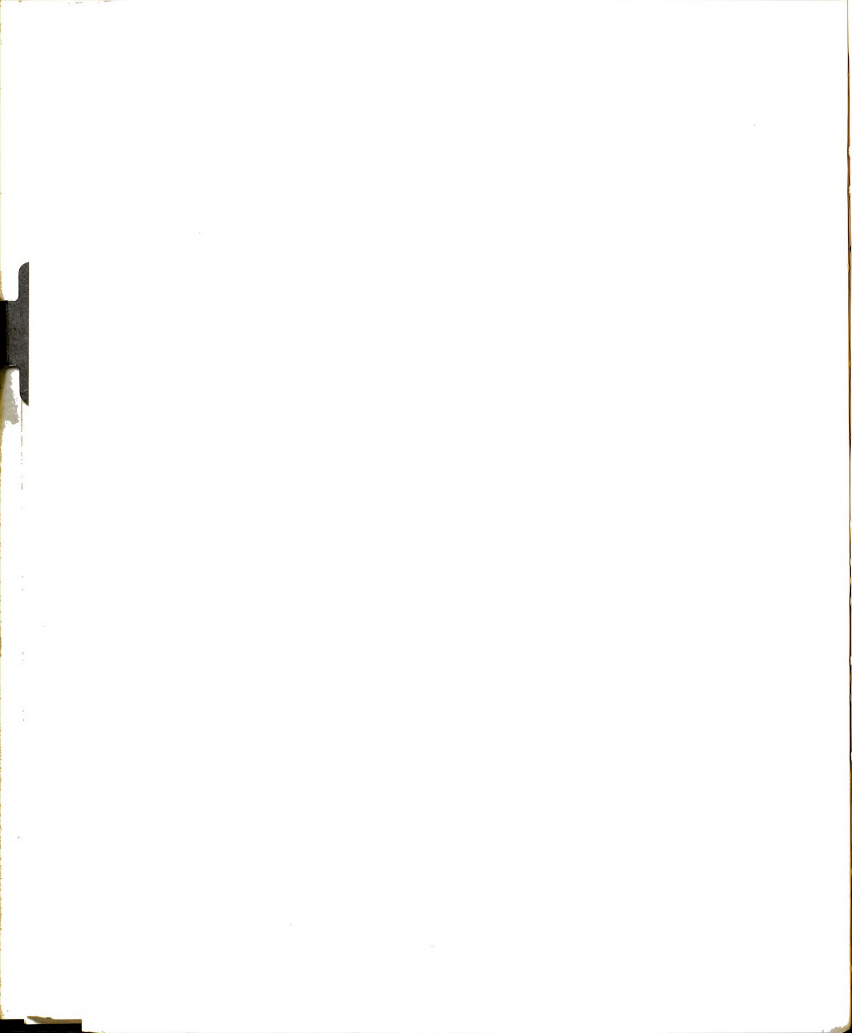
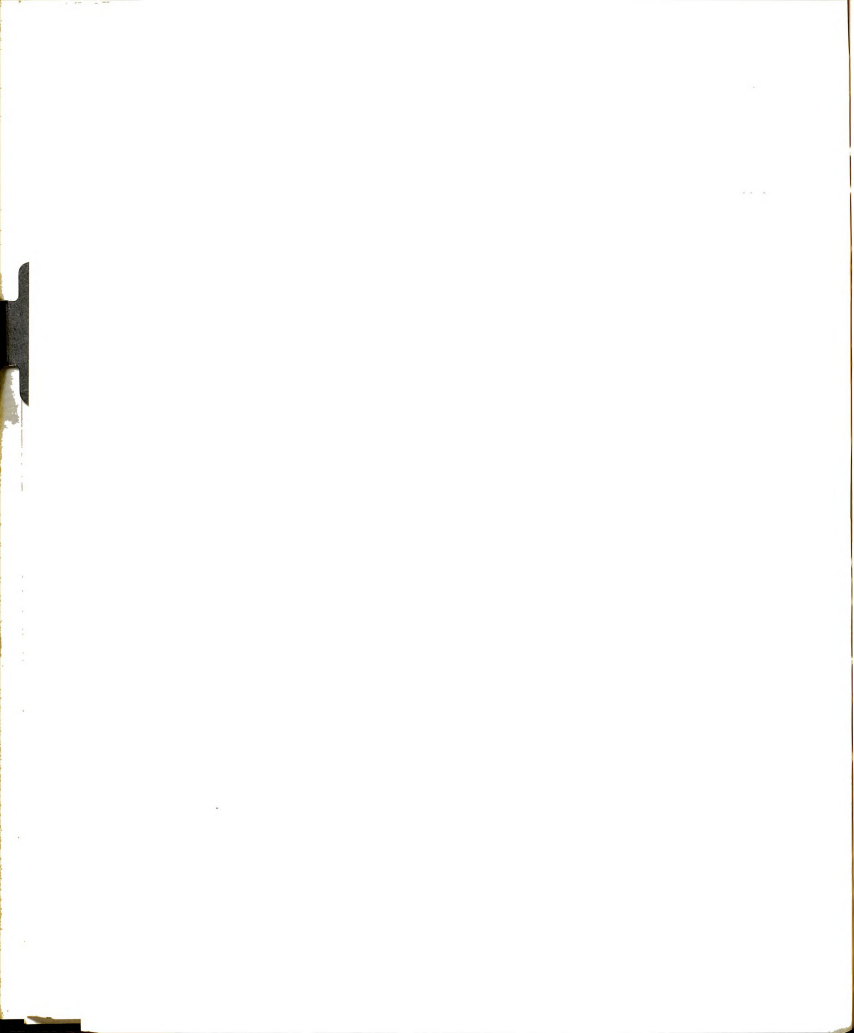


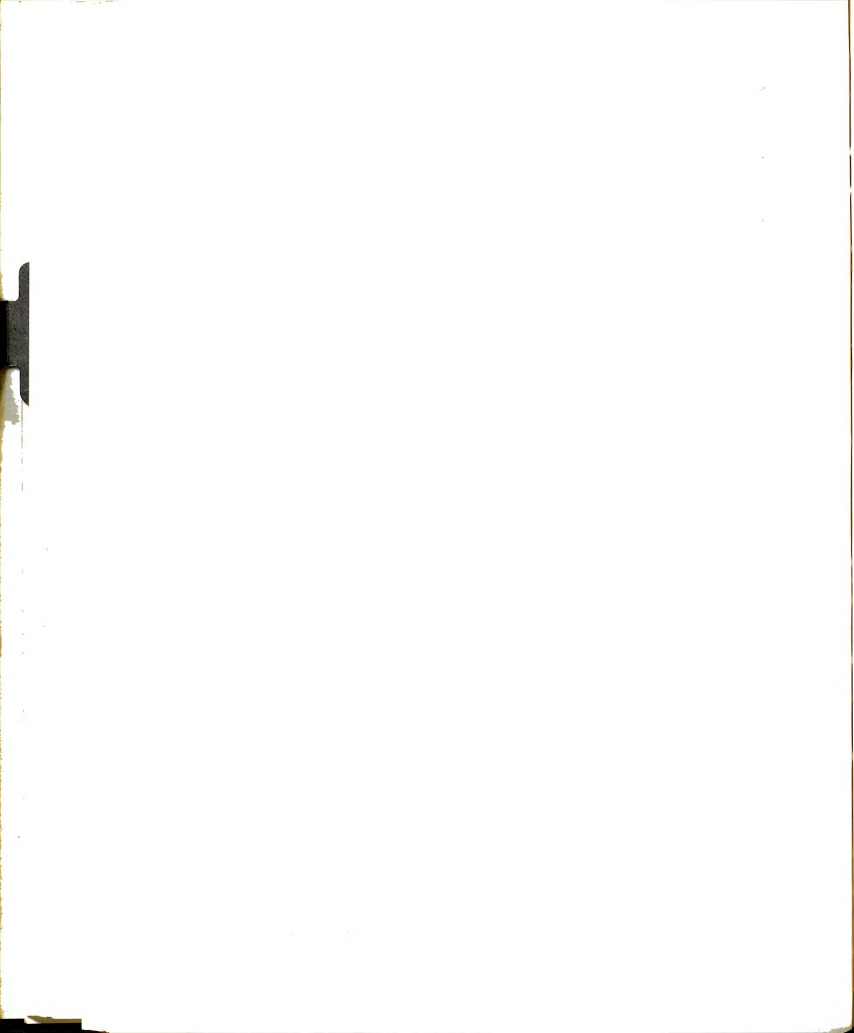
TABLE 4.28.--Canonical Weights for Publication Policies and Intended Readership.

	First Canonical Weights	Second Canonical Weights	Third Canonical Weights	Fourth Canonical Weights
<u>Intended Readership</u>				
Researcher	-.672	-.766	-.018	-.319
College teacher	.599	-.817	-.295	.081
Administrator	.340	-.393	1.049	-.263
Counselor	-.244	.707	-.454	.902
Teacher	-.044	.023	-.307	-.724
Other	-.683	-.175	-.454	-.463
<u>Publication Policies</u>				
Percent of articles published	-.066	.198	.155	-.269
Average time lag	-.174	-.427	-1.370	.390
Editor able to accept	.030	-.053	2.319	.621
Editor able to reject	.211	-.210	-2.319	-1.133
Type reviews	-.118	-.454	-.091	-.341
Use of blind reviews	.532	-.119	1.169	-.051
Average number of readers to accept	.792	-1.701	.312	2.055
Average number of readers to reject	-.596	1.814	-1.170	-1.774
Manuscript distribu- tion basis	-.234	.180	.340	.656
Percent rewritten	-.500	-.230	.006	-.621
Use of evaluation guide	.122	.692	.831	.401
Manuscript form required	-.238	-.466	-1.159	-.292
Length restrictions	-.220	-.097	.938	.344
Page charge	.483	1.560	1.077	.679
Early publication fees	.078	-1.114	-1.567	-.439
Canonical R	.945	.915	.826	.608
Canonical R <sup>2</sup>	.893	.837	.682	.370

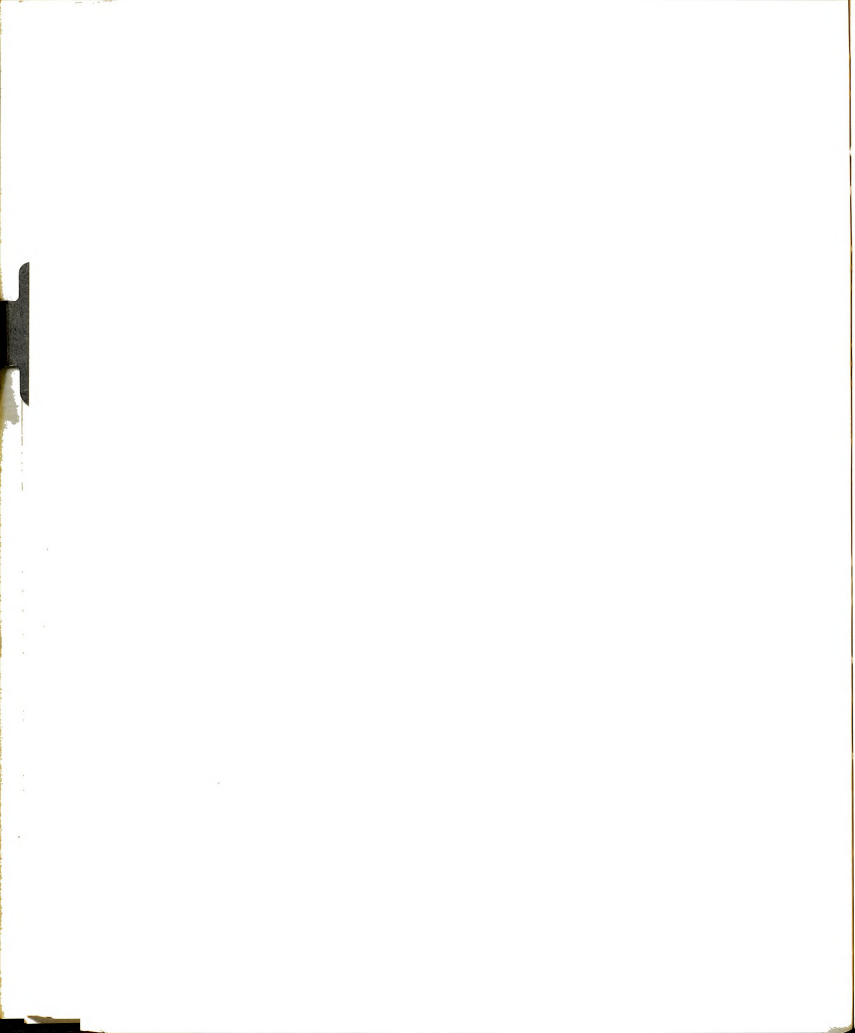




and number of readers to reject. This indicates that journals intended primarily for college teachers are more stringent in their immediate acceptance of an article than for researchers, but not often giving the option of rewriting the material. Those intended for researchers, however, though not put through quite so rigid a process on the initial submission, are more often requested instead to rewrite parts or all of the manuscript. The second set of weights tends to differentiate counselor from college teacher and researcher through high positive weights for number of readers to reject and page charges, and high negative weights for number of readers to accept and early publication fees. This indicates that those articles intended for counselors are likely to be re-read for content before they are rejected in order to avoid missing something which would contribute to the limited field of knowledge, while those intended for college teachers and researchers are re-read before acceptance to assure an actual contribution to the body of knowledge rather than merely repeating what has been said before. The third set of weights tends to differentiate administrator from other readers through high positive weights for the editor being able to accept an article, the use of blind reviews, and page charge, and high negative weights for the editor being able to reject an article, early publication fees, time lag, number of readers to reject



an article, and manuscript form required. This indicates that editors of journals aimed primarily to administrators take a more active interest in shielding their readers from articles which are clearly inappropriate or are otherwise not likely to be of much interest to a "busy" person, at the same time not subjecting the readership to a poorly evaluated group of articles. The fourth set of weights tends to differentiate primarily counselor from teacher through high positive weights for number of readers to accept, page charge, manuscript distribution basis, and editor ability to accept, and high negative weights for number of readers to reject, editor ability to reject, and percent rewritten. This indicates that journals intended for counselors tend to be distributed more freely than those intended for teachers and tend to be rewritten less often. Editors are apparently aware of the shortage of information available to counselors as compared to teachers and that available is therefore made more easily available. Also, it would appear that those articles written for teachers are more carelessly developed and more plentiful. Therefore, editors are more likely to reject these or to have them rewritten before final acceptance. The canonical R's for these sets of weights were .95, .91, .83, and .61, respectively, with accompany  $R^2$ 's of .89, .84, .68, and .37.



Question 9: What journal characteristics are significantly related to adequacy of research reports?

Findings.--Table 4.10 presents the intracorrelation matrix for journal characteristics. Table 4.29 presents the intercorrelation matrix for journal characteristics and adequacy of research reports. No correlations in this table were significant.

Table 4.30 presents the first set of canonical weights for journal characteristics and adequacy of research reports. The highest weight among journal characteristics is for number of issues per year, indicating that those journals published less frequently tend to publish the most adequate research reports. The canonical R for this set of weights was .30, with an accompanying  $R^2$  of .09.

TABLE 4.29.--Intercorrelation Matrix for Journal Characteristics and Adequacy of Research Reports.

---

Number of years published	-.084
Average monthly circulation	-.160
Method of distribution	-.097
Number of issues per year	-.252
Average number of articles	.097

---

Adequacy of  
research  
reports

---

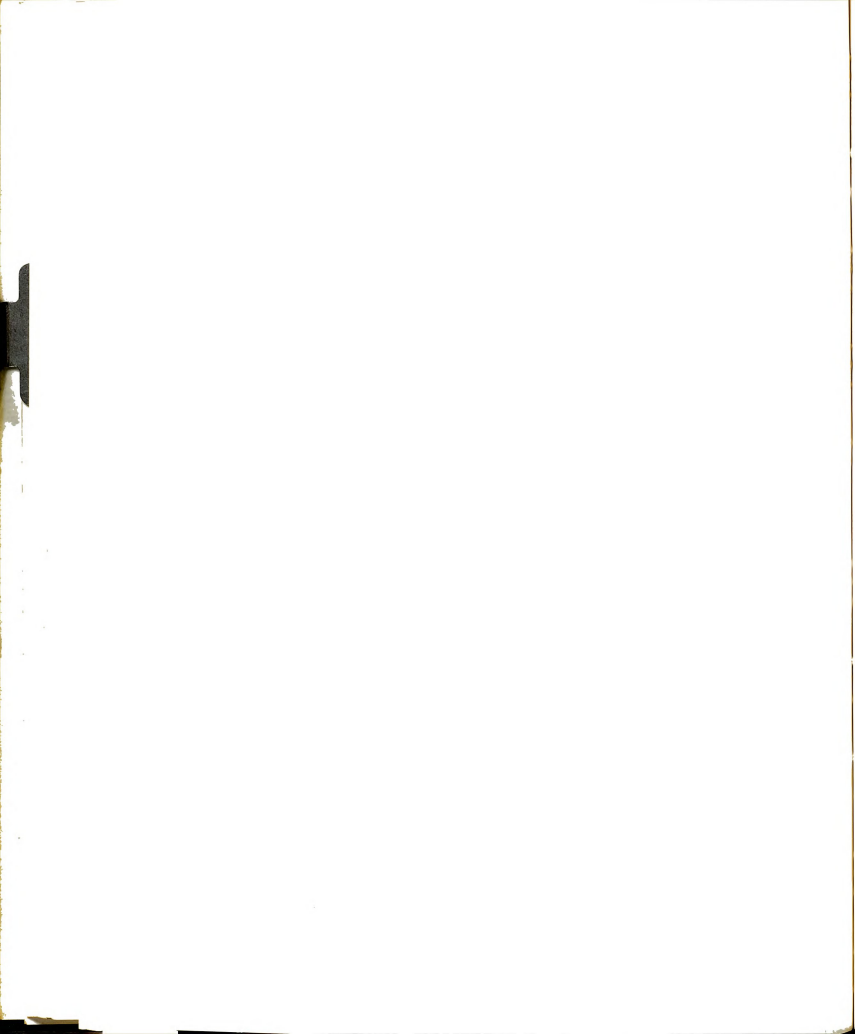


TABLE 4.30.--Canonical Weights for Journal Characteristics and Adequacy of Research Reports.

	First Canonical Weights
Adequacy of research reports	1.000
<u>Journal Characteristics</u>	
Number of years published	.199
Average monthly circulation	-.028
Method of distribution	-.334
Number of issues per year	-.993
Average number of articles	.286
Canonical R	.298
Canonical R <sup>2</sup>	.089

Question 10: What topics are significantly related to adequacy of research reports?

Findings.--Table 4.14 presents the intracorrelation matrix for topic. Table 4.31 presents the intercorrelation matrix for topic and adequacy of research reports. Moderate correlations were obtained for research methodologies, cultural influences, and teaching methodologies in the affective areas, although the latter was in a negative direction.

Table 4.32 presents the first set of canonical weights for topic and adequacy of research reports. The highest weights were assigned to teaching--affective,



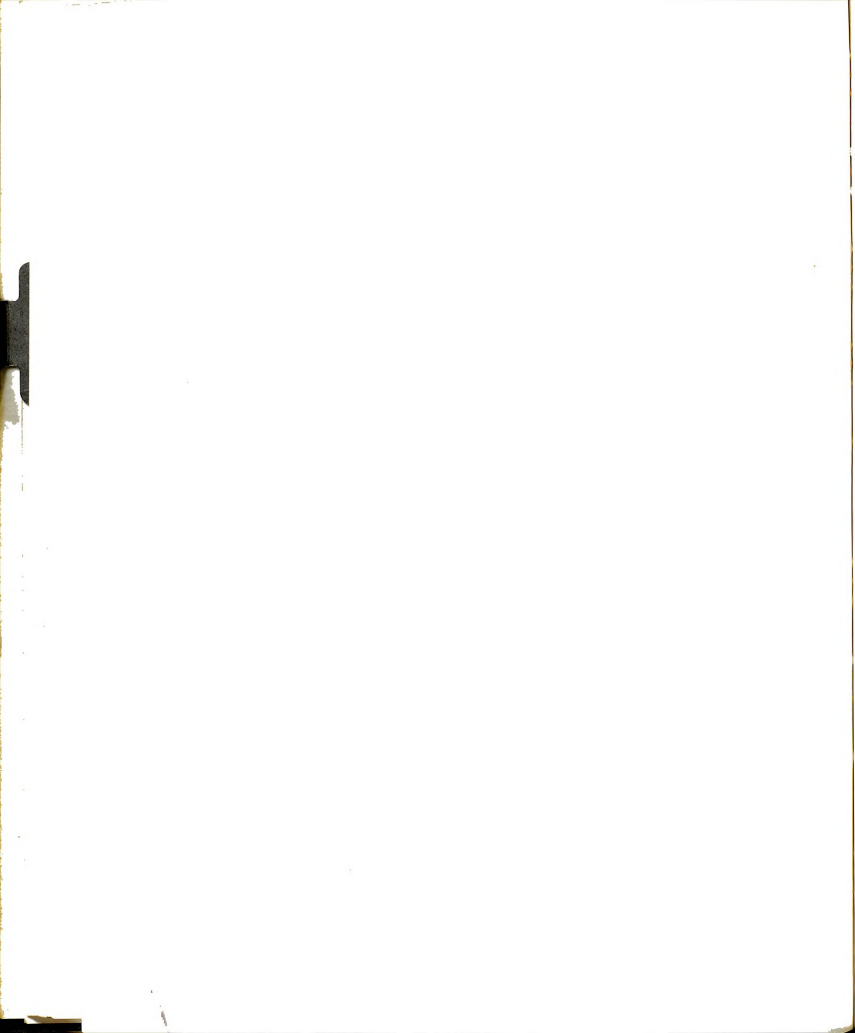


TABLE 4.31.--Intercorrelation Matrix for Topic and Adequacy of Research Reports.

---

Research methodologies	.371
Teacher education	.197
Cultural influences	.334
Business and finance	-.214
Philosophy	-.255
Legal areas	-.246
Review	.015
Tangible materials	-.076
Personnel	-.139
Learning and development	.285
Counseling methodologies	.230
Teaching--affective	-.357
Teaching--cognitive	-.268
Administrative	.094
College curriculum	-.138
Public school curriculum	-.053
Faculty role	.085
Miscellaneous	.130

---

Adequacy of  
research reports

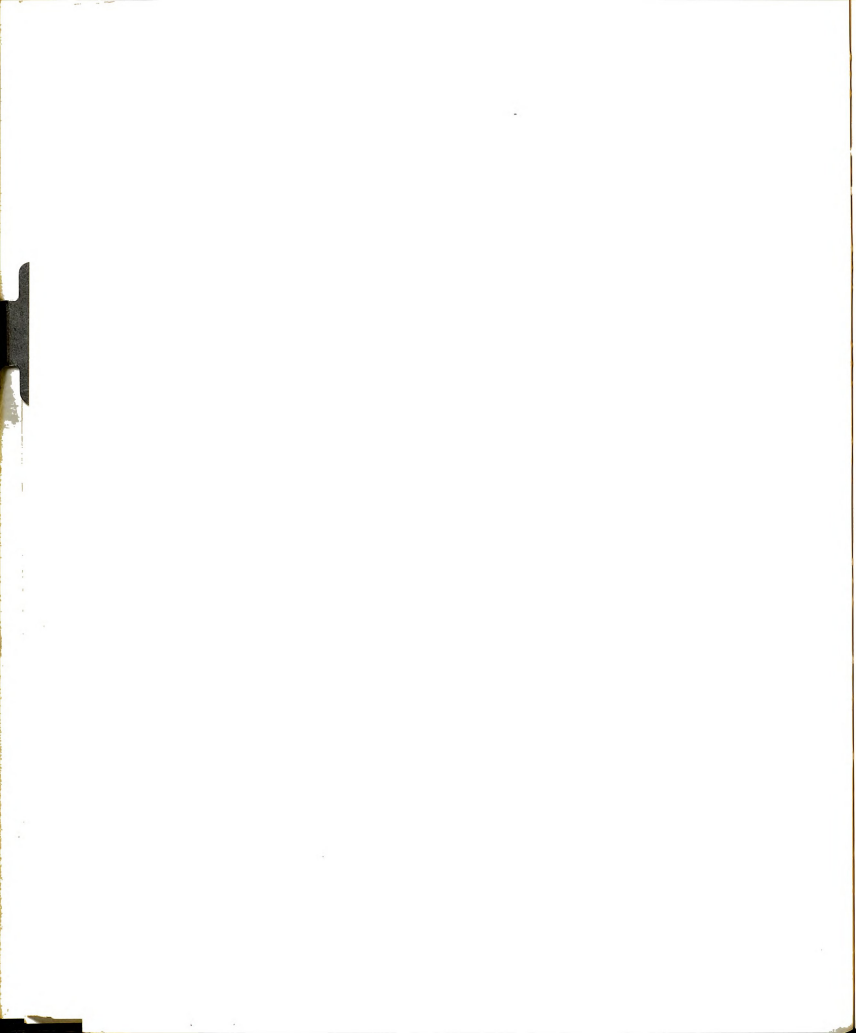
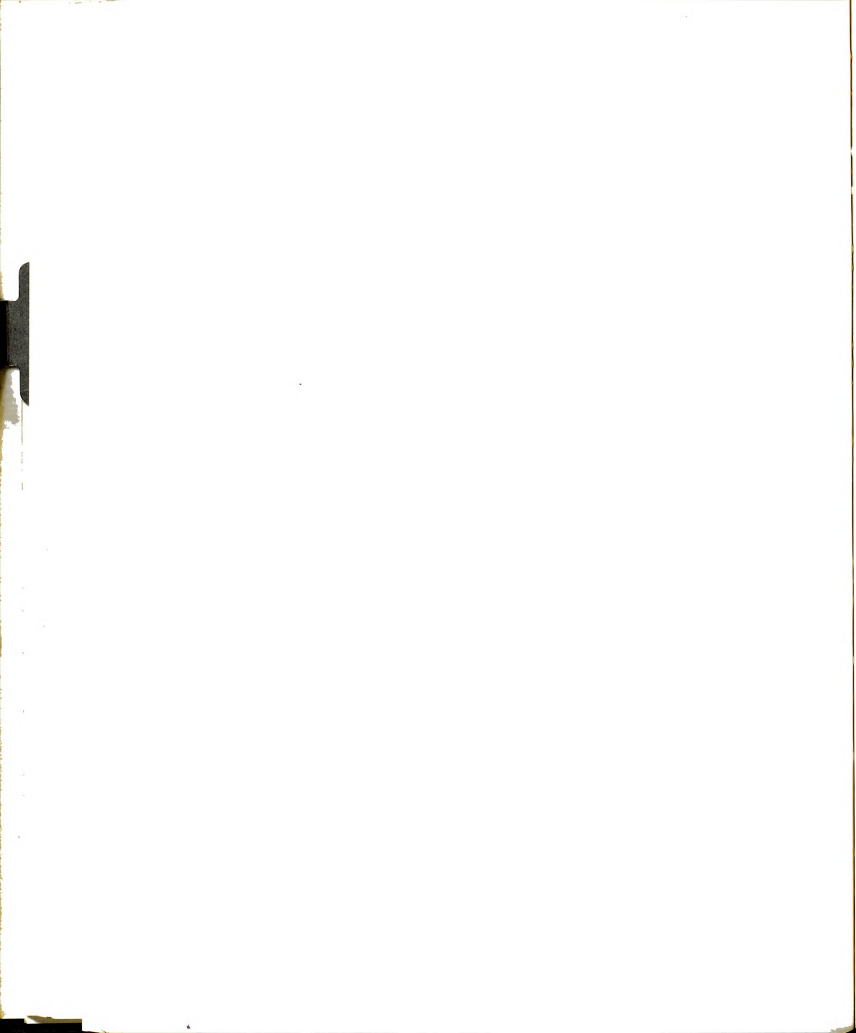


TABLE 4.32.--Canonical Weights for Topic and Adequacy of Research Reports.

	First Canonical Weights
Adequacy of research reports	1.000
<u>Topic</u>	
Research methodologies	-.243
Teacher education	.268
Cultural influences	.184
Business and finance	-.373
Philosophy	-.276
Legal areas	-.473
Review	-.083
Tangible materials	-.055
Personnel	-.203
Learning and development	.300
Counseling methodologies	.126
Teaching--affective	-.688
Teaching--cognitive	-.298
Administrative	.316
College curriculum	-.513
Public school curriculum	.135
Faculty role	.002
Miscellaneous	.125
Canonical R	.871
Canonical R <sup>2</sup>	.759

college curriculum, and legal areas, all in a negative direction. This suggests that these areas are either less well researched than other areas or that these topics are of primary interest to readers who are not seen as requiring complete research reports. The resulting canonical R was .87, and the canonical R<sup>2</sup> was .76.



Question 11: What data collection procedures are significantly related to adequacy of research reports?

Findings.--Table 4.18 presents the intracorrelation matrix for data collection procedures. Table 4.33 presents the intercorrelation matrix for data collection procedures and adequacy of research reports. It is of interest to note that standardized tests and other procedures correlate most highly with adequacy of research reports, although all other data collection procedures are also moderately correlated.

TABLE 4.33.--Intercorrelation Matrix for Data Collection Procedures and Adequacy of Research Reports.

---

Standardized tests	.390*
Questionnaire	.364
Interview	.370
Observation	.332
Pre-existing records	.340
Experimental design	.373
Other	.417*

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Adequacy of  
research  
reports

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\*Significant at  $\alpha = .05$  level.

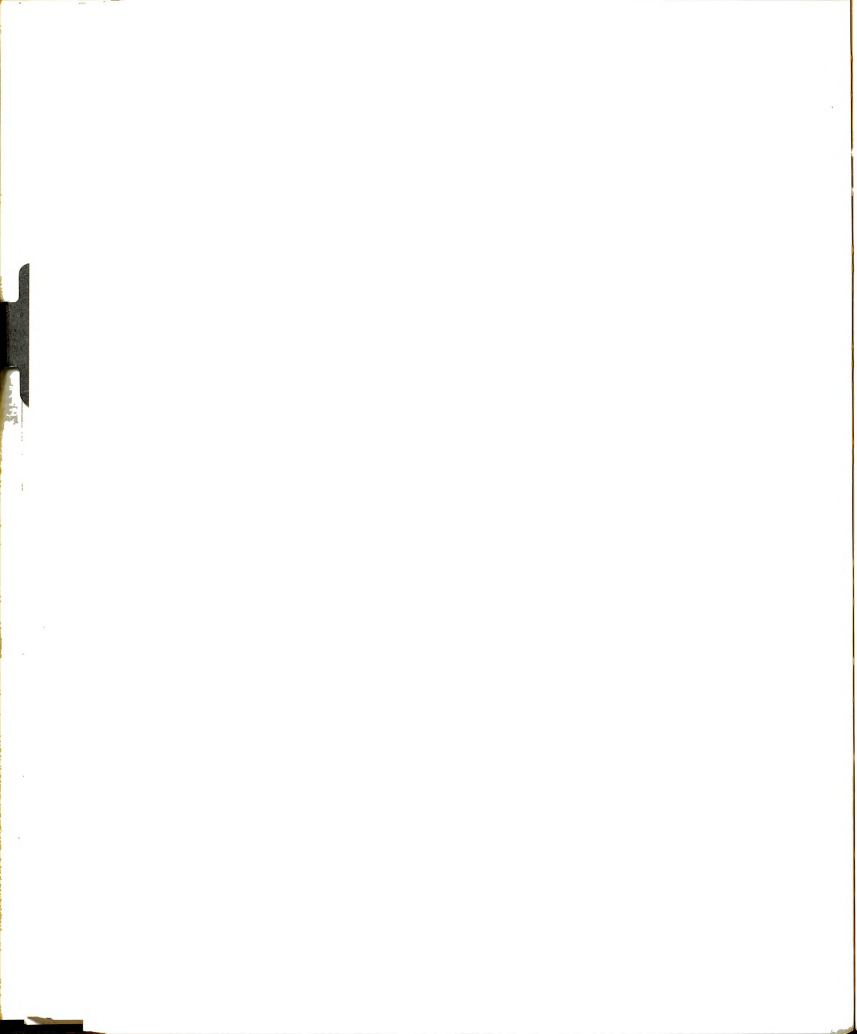
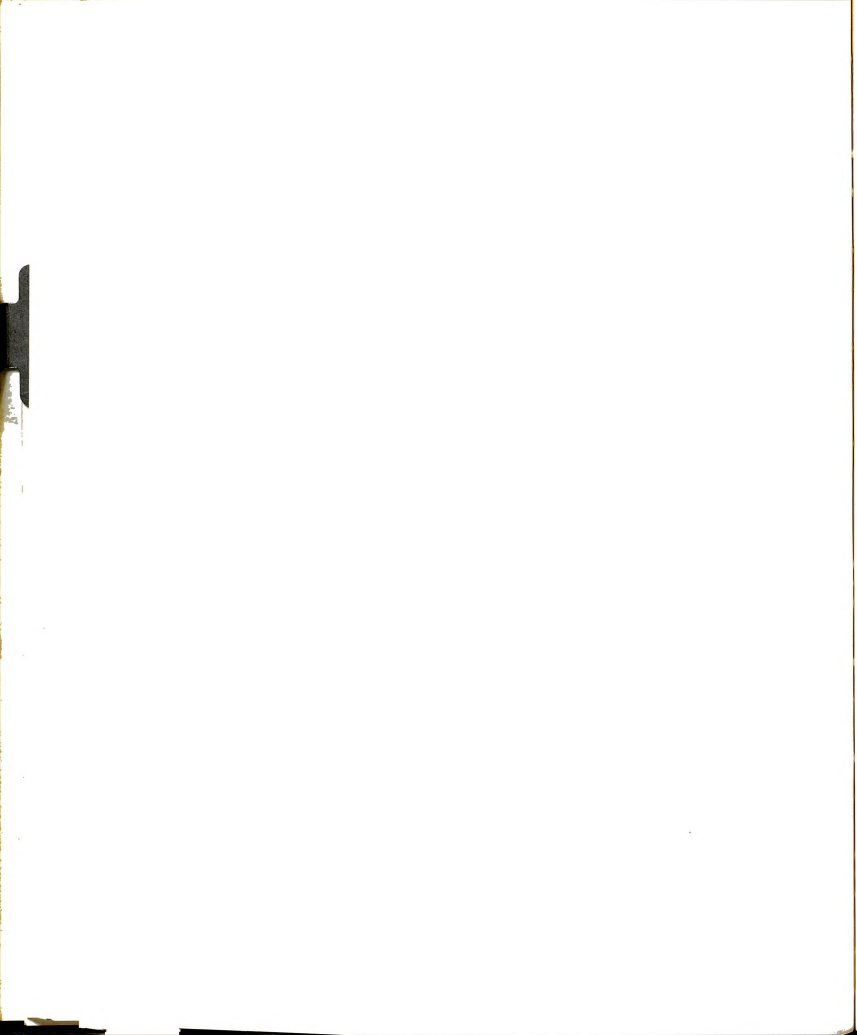


Table 4.34 presents the canonical weights for data collection procedures and adequacy of research reports. High positive weights are given to observation and questionnaire, while equally high but negative weights are given to standardized tests and experimental design. Those studies employing observation and/or questionnaires tend to report the study more completely than those using standardized tests and/or experimental design, an indication that perhaps strictness in the data collection procedure is being used in place of careful description of the exact procedures used. The resulting canonical R was .63 and the  $R^2$  was .40.

TABLE 4.34.--Canonical Weights for Data Collection Procedures and Adequacy of Research Reports.

	First Canonical Weights
Adequacy of research reports	1.000
<u>Data Collection Procedures</u>	
Standardized tests	-2.177
Questionnaire	1.692
Interview	.548
Observation	2.768
Pre-existing records	.170
Experimental design	-1.207
Other	.319
Canonical R	.629
Canonical $R^2$	.396





Question 12: What statistical methods reported are significantly related to adequacy of research reports?

Findings.--Table 4.22 presents the intracorrelation matrix for statistical methods reported. Table 4.35 presents the intercorrelation matrix for statistical methods reported and adequacy of research reports. It is of interest to note that the only statistics which are not correlated highly with adequacy of research reports are standard deviation, Pearson correlation, other correlations, factor analysis, and other analytic techniques, although each has a moderate correlation. Only none reported is not correlated with adequacy of research reports.

Table 4.36 presents the set of canonical weights for statistical methods reported and adequacy of research reports. High positive weights were obtained for reliability, other non-parametric techniques, mean, and other analytic techniques, while high negative weights were obtained for analysis of variance, T-test, and chi square. This indicates that those studies which are statistically more descriptive of the results are also more descriptive of the study as a whole. The resulting canonical R was .92 and the  $R^2$  was .85.

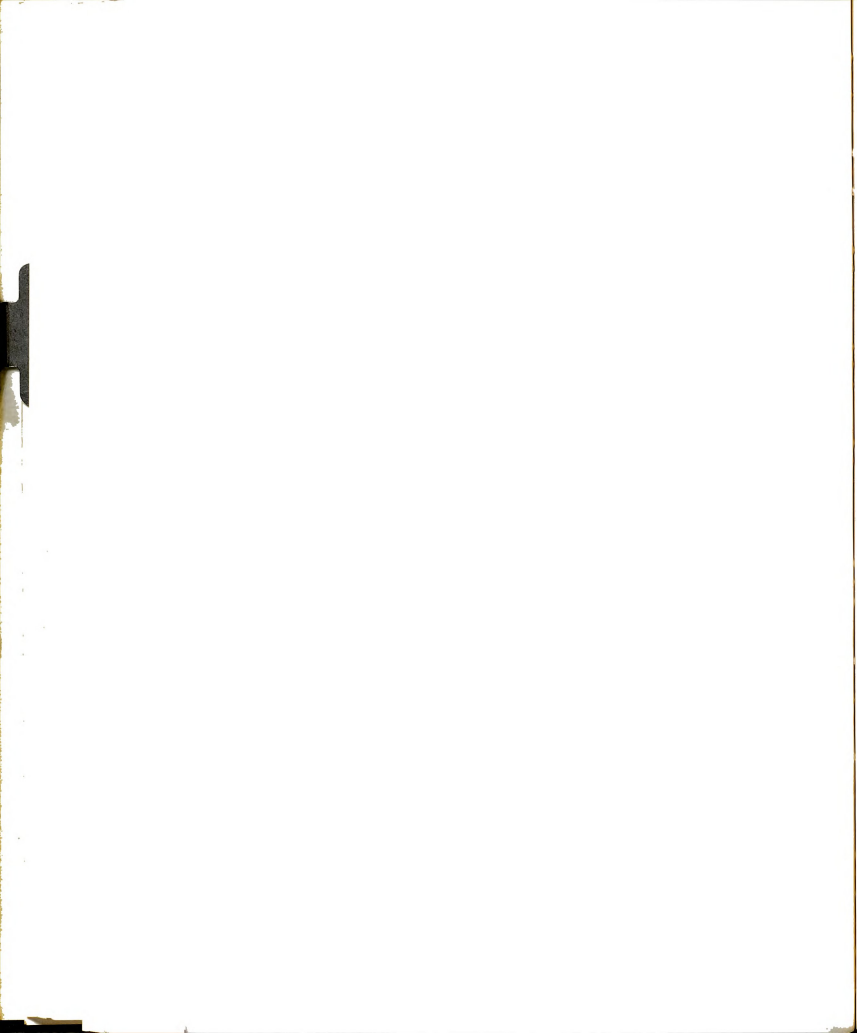


TABLE 4.35.--Intercorrelation Matrix for Statistical Techniques Reported and Adequacy of Research Reports.

---

None	-.064
Raw scores	.384*
Percents	.511**
Mean	.422*
Standard deviation	.360
Other descriptive	.383*
Pearson correlation	.334
Other correlations	.362
T-test	.406*
Analysis of variance	.382*
Analysis of covariance	.373
Post hoc procedures	.376*
Factor analysis	.320
Other analytic	.372
Chi square	.433*
Other non-parametric	.392*
Reliability	.430*

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Adequacy of  
research reports

\*Significant at  $\alpha = .05$  level.\*\*Significant at  $\alpha = .01$  level.

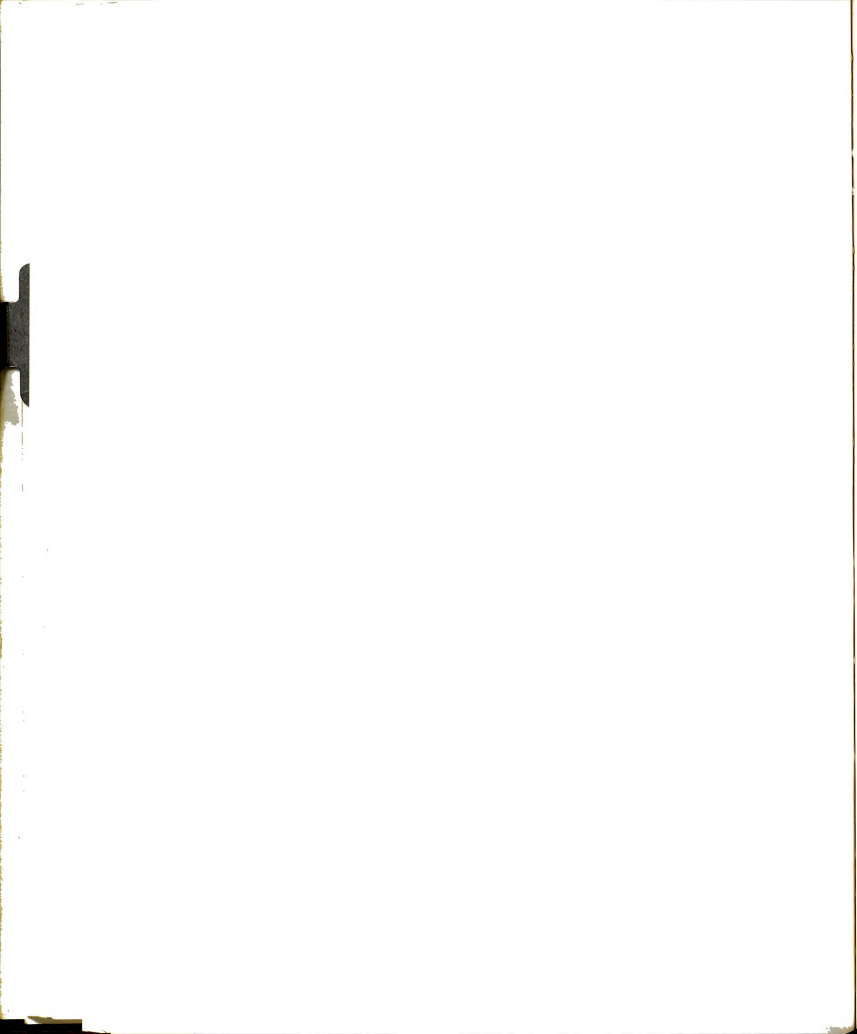


TABLE 4.36.--Canonical Weights for Statistical Techniques Reported and Adequacy of Research Reports.

	First Canonical Weights
Adequacy of research reports	1.000
<u>Statistical Techniques Reported</u>	
None	.155
Raw scores	.853
Percents	.492
Mean	5.859
Standard deviation	-.531
Other descriptive	-1.153
Pearson correlation	1.059
Other correlation	.196
T-test	-8.863
Analysis of variance	-11.687
Analysis of covariance	2.520
Post hoc procedures	.652
Factor analysis	-.282
Other analytic	3.460
Chi square	-8.210
Other non-parametric	7.427
Reliability	10.264
Canonical R	.923
Canonical R <sup>2</sup>	.852

Question 13: What publication policies are significantly related to adequacy of research reports?

Findings.--Table 4.26 presents the intracorrelation matrix for publication policies. Table 4.37 presents the intercorrelation matrix for publication policies and adequacy of research reports. The only high correlation here is between length restrictions and adequacy of research

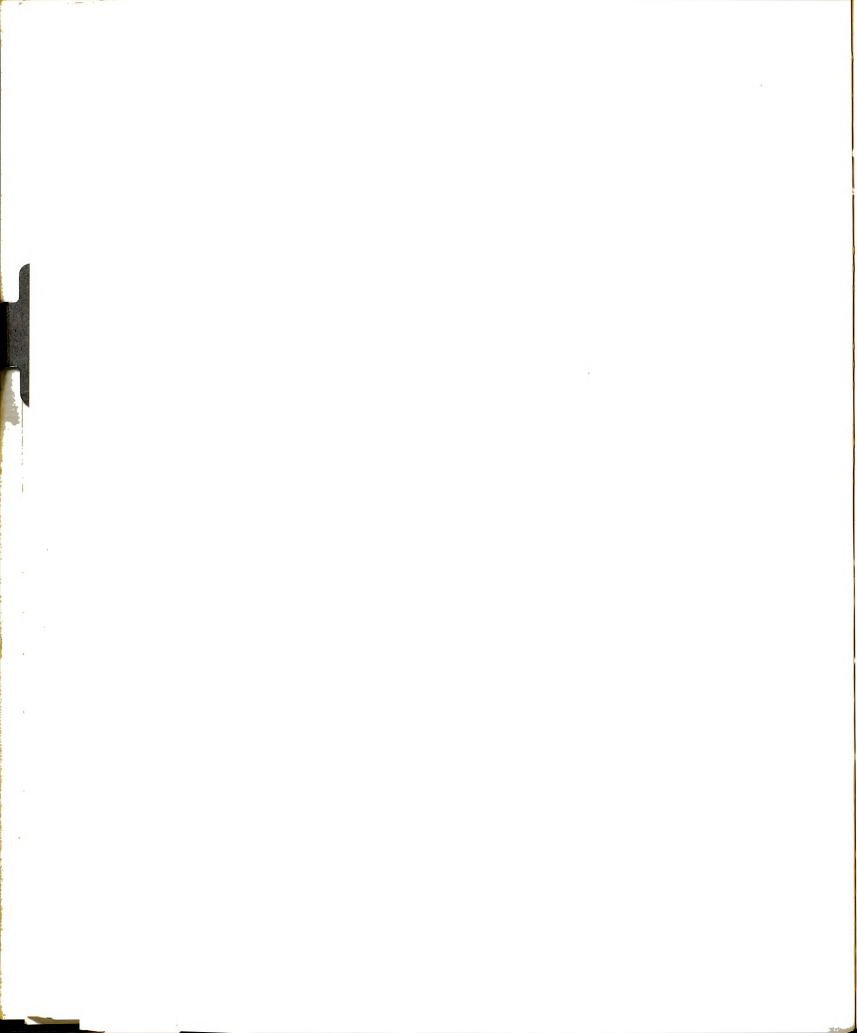


TABLE 4.37.--Intercorrelation Matrix for Publication Policies and Adequacy of Research Reports.

Percent of articles published	-.100
Average time lag	.209
Editor able to accept	-.013
Editor able to reject	-.016
Type reviewers	-.371
Use of blind reviews	-.181
Average number of readers to accept	.240
Average number of readers to reject	.325
Manuscript distribution basis	.106
Percent rewritten	.247
Use of evaluation guide	-.167
Manuscript form required	-.319
Length restrictions	.440*
Page charge	-.234
Early publication fees	-.210
	Adequacy of research reports

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\*Significant at  $\alpha = .05$  level.

reports, although a moderately high negative correlation was obtained between the type of reviewers and adequacy of research reports.

Table 4.38 presents the set of canonical weights for publication policies and adequacy of research reports. The only high weights were associated with the average number of readers to reject an article, and in the negative



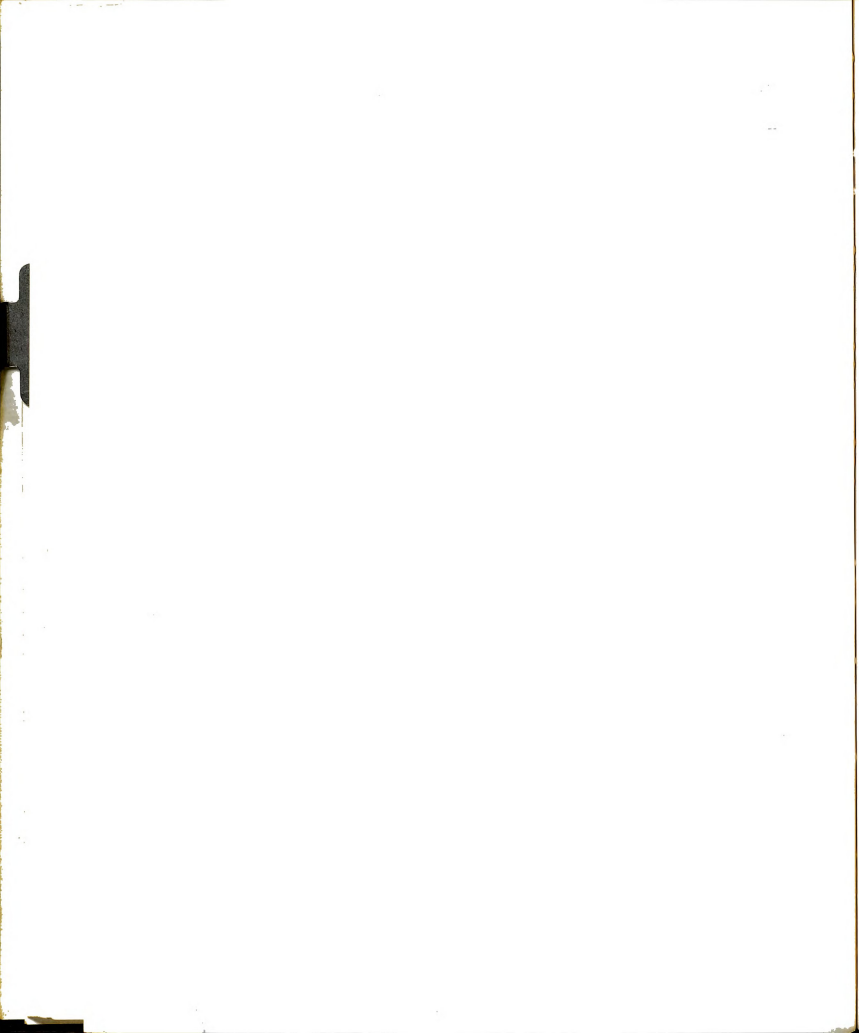
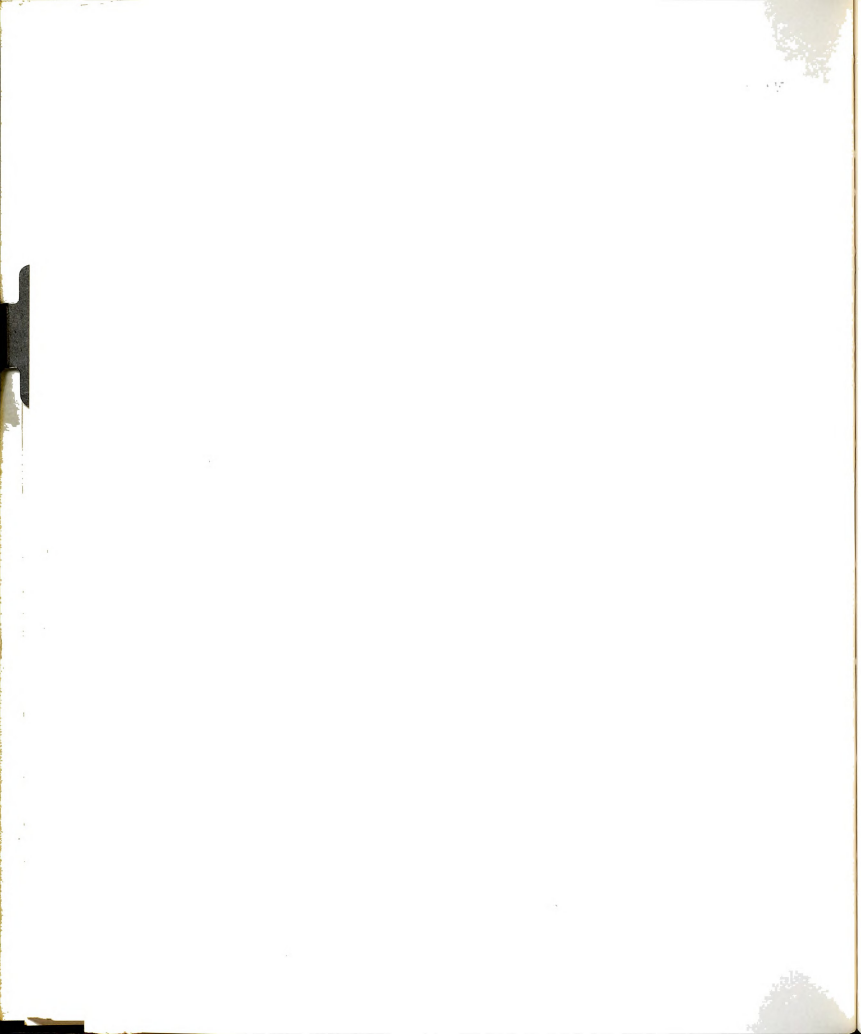


TABLE 4.38.--Canonical Weights for Publication Policies and Adequacy of Research Reports.

	First Canonical Weights
Adequacy of research reports	1.000
<u>Publication Policies</u>	
Percent of articles published	-.109
Average time lag	.445
Editor able to accept	.184
Editor able to reject	-.312
Type reviewers	-.434
Use of blind reviews	.277
Average number of readers to accept	-2.032
Average number of readers to reject	2.528
Manuscript distribution basis	.024
Percent rewritten	-.213
Use of evaluation guide	-.096
Manuscript form required	.049
Length restrictions	.351
Page charge	-.388
Early publication fees	.046
Canonical R	.736
Canonical R <sup>2</sup>	.542

direction the average number of readers needed to accept an article, indicating a reluctance to reject a "good" research article and reluctance to accept a "poor" research article. The resulting canonical R was .74 and the R<sup>2</sup> was .54.



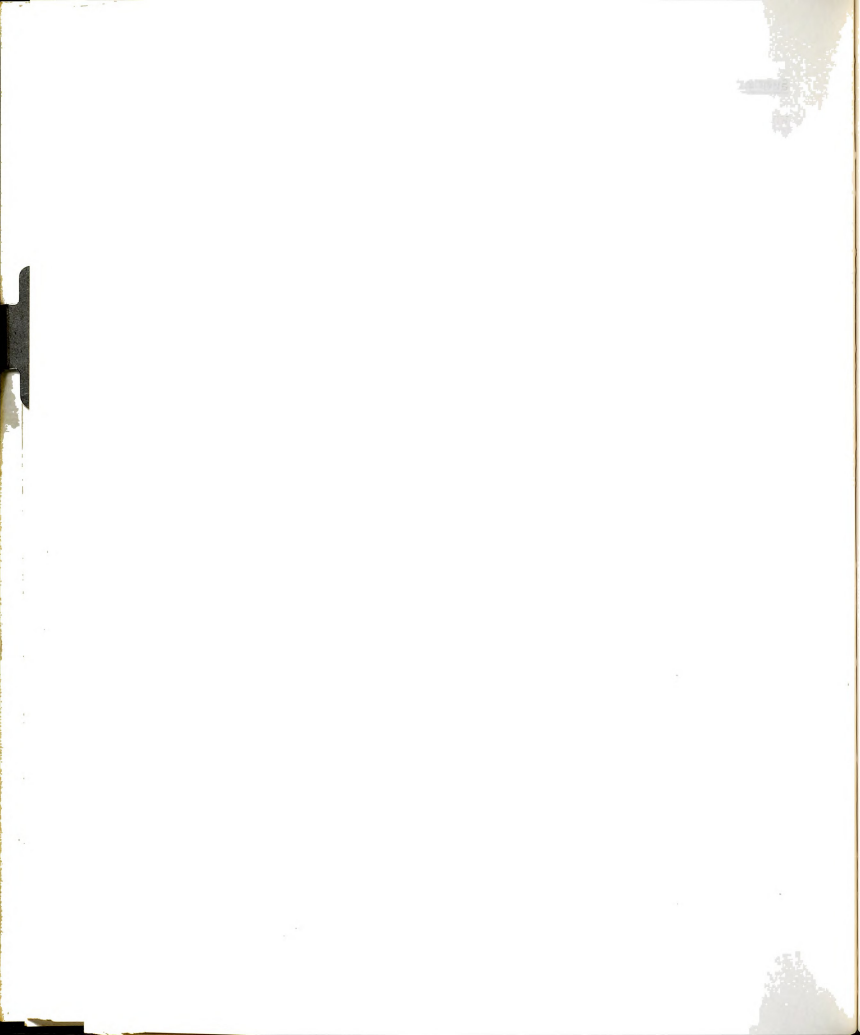
Summary Information

Question 1: For what type of readers are professional journals in education intended?

Findings.--Table 4.39 presents the number of journals reporting that all of the articles published are intended for a particular group of readers, that over half of the articles published are intended for a particular group of readers, and none of the articles published are intended for a particular group of readers. It is clear that a majority of the journals are intended primarily for college teachers with researchers and administrators being next in importance. Only 18 percent of the journals

TABLE 4.39.--Relative Importance of Classes of Readers.

	Total	Over Half	Under Half	None
Researcher	4 14%	4 14%	12 43%	8 29%
College teacher	3 11%	9 32%	12 43%	4 14%
Administrator	1 4%	6 21%	11 39%	10 36%
Counselor	1 4%	0 0%	11 39%	16 57%
Teacher	2 7%	3 11%	13 46%	10 36%
Other	1 4%	3 11%	3 11%	21 75%



are primarily interested in the public school teacher while 36 percent have no interest at all in this type of reader. There is even less interest shown in counselors, with only 4 percent having them as a primary target and 57 percent having no interest at all.

#### Summary of Findings

The findings of this study have been summarized into the following statements.

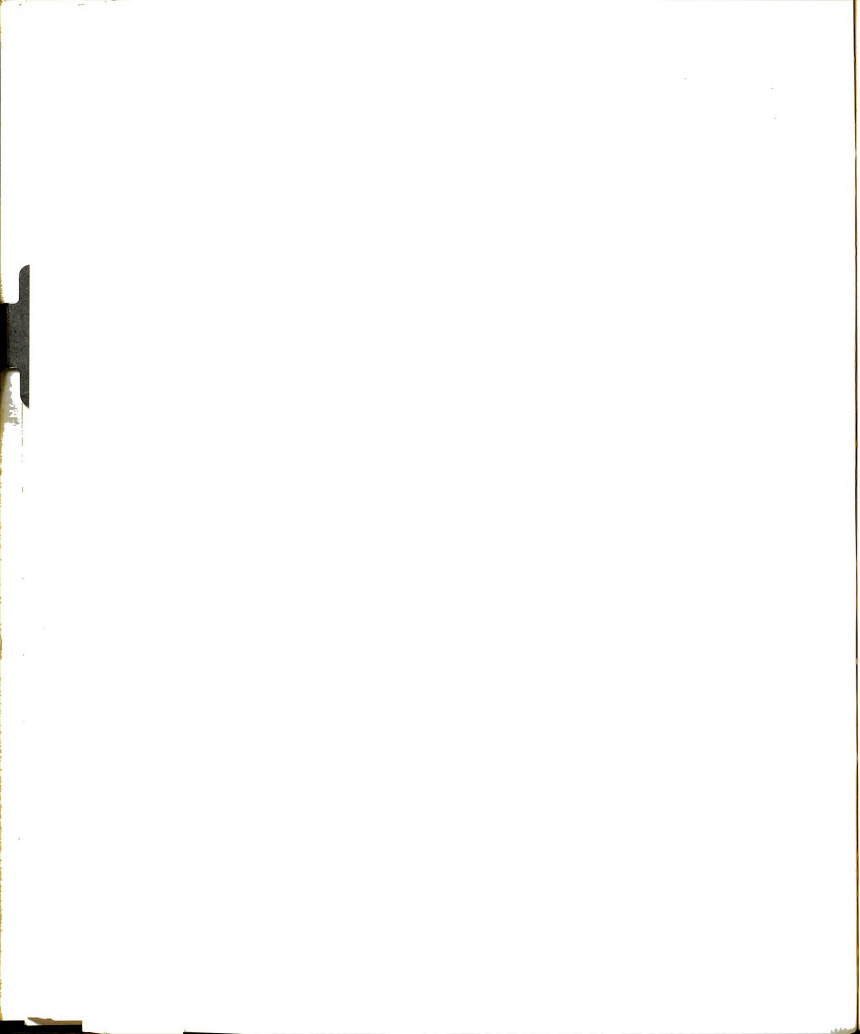
Journals having a strong interest in researchers as their intended readership also have a strong tendency to provide more adequate research reports while those having a strong interest in the college teacher as their intended readership have a tendency to provide less adequate research reports.

Journals intended primarily for researchers contain primarily research articles while those intended primarily for teachers contain primarily expository articles.

Journals intended primarily for college teachers are likely to have very few articles dealing with a review of the literature.

Journals intended for researchers and counselors publish more rigorous research reports than those intended for other types of readers.

Interest in the researcher as an important reader of professional journals in education has resulted in an increase in new journals intended primarily for the



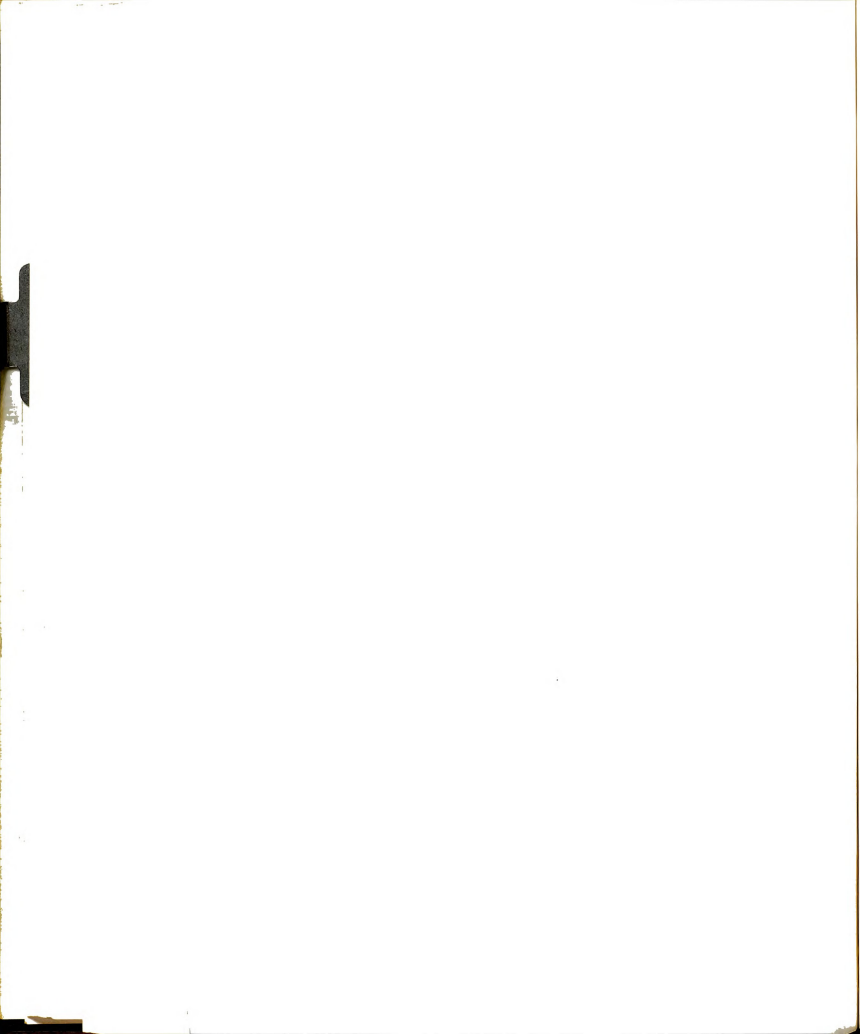
researcher. However, these new journals tend to be published at less frequent intervals and in less quantity than their older counterparts, due primarily to their more specific nature and limited readership.

Journals intended primarily for the college teacher tend to be published more frequently than those intended primarily for other types of readers. This is an indication that college teachers are perceived as having a more urgent need or desire for new information in order to keep abreast of new trends.

Journals intended for researchers differ from those intended for public school personnel primarily with respect to length of publication and average number of articles, with those intended for the researcher being newer and shorter.

The type of reader for whom a journal is intended greatly influences the topics covered by published articles. The journal intended for the researcher contains more articles concerning research methodology, cultural influences, and learning and development. The journal intended for the college teacher contains more articles concerned with the tangible materials used in their teaching. The journal intended for the administrator contains more articles concerning personnel problems. The journal intended for the counselor contains more articles dealing with counseling methodologies and research methodologies.





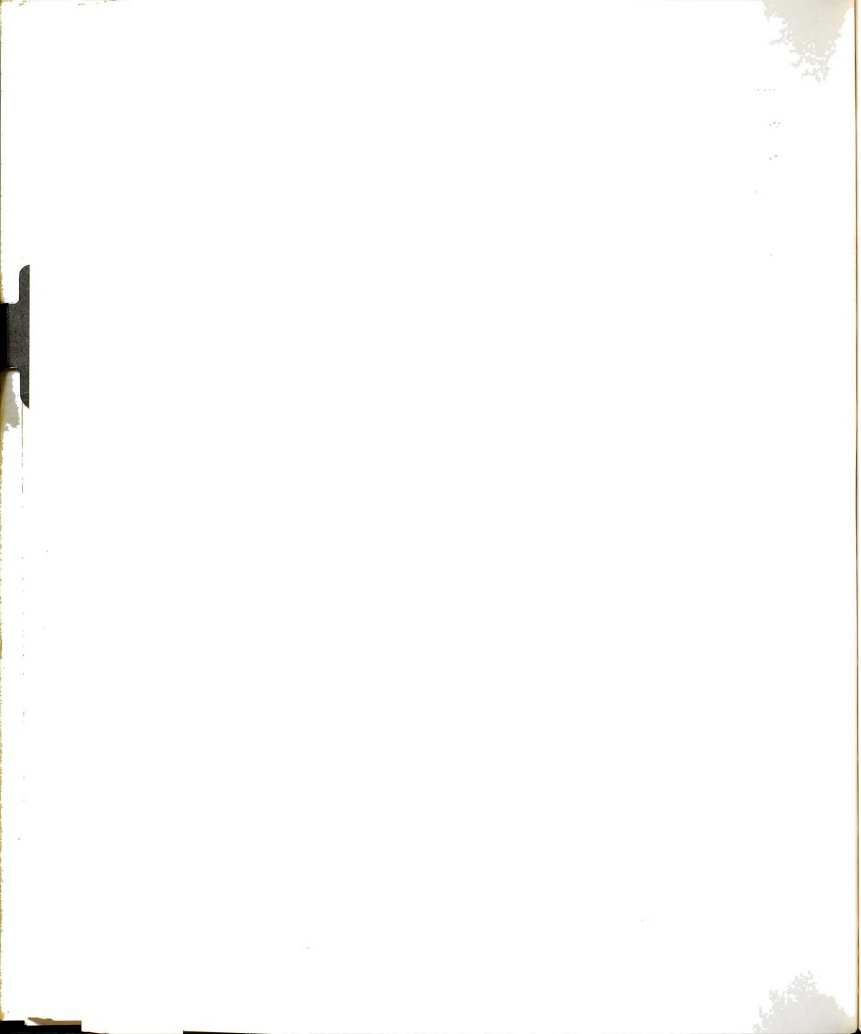
The journal intended for the teacher contains more articles dealing with teaching methodologies in the cognitive areas and public school curriculum. It is also more likely to contain more miscellaneous, non-education type articles.

Observation and interview as data collection methods reported in research articles occur more often in those journals intended primarily for counselors than in those intended for other types of readers, as does experimental design. However, in those intended for researchers, the occurrence of the use of standardized tests as a data collection technique is infrequent. Experimental design is much more important.

Research for counselors tends to be more rigorous and controlled while that in areas of interest to administrators employs less control in the data collection, often utilizing such methods as observation and interview.

Research reported in journals intended primarily for researchers has been most often conducted under controlled situations, not teaching situations. In addition, the evaluation of such research is often conducted through the use of measurement instruments developed specifically for the situation.

Research reports which are intended for teachers tend to analyze the data primarily through the use of analysis of variance and chi square tests, which can easily fit teaching situations. These techniques are



understandable and interpretable in a context relevant to the teacher. Research which is counseling oriented tends to follow the same pattern but also depends rather heavily on correlation techniques other than the Pearson. Research reports intended for researchers also tended to employ a wider variety of other techniques.

Journals which are more interested in researchers tend to publish a smaller proportion of manuscripts submitted than other journals, to require more of the manuscripts submitted to be rewritten prior to publication, to use an evaluation form when reviewing the submitted manuscripts, and also to expect the manuscripts to be in a particular form.

Journals intended primarily for college teachers are more likely to use blind reviews when evaluating manuscripts submitted for publication and generally expect the manuscript to be in a particular form. The manuscripts are generally scrutinized more thoroughly on the initial acceptance readings and little chance is given for rewriting.

The publication policies most associated with differing between the administrator and other types of readers are the editor's ability to make the sole decision regarding the final disposition of a manuscript submitted for publication.



The publication policies most clearly related to differentiating between the counselor and teacher as the most important reader are the greater availability of those for the counselor and an apparently greater number of less well written articles for teachers.

The frequency of occurrence of any topic within a journal appears to be unrelated to the adequacy of the research reports in that same journal.

No journal characteristics appear to be related to the adequacy of the research reports published.

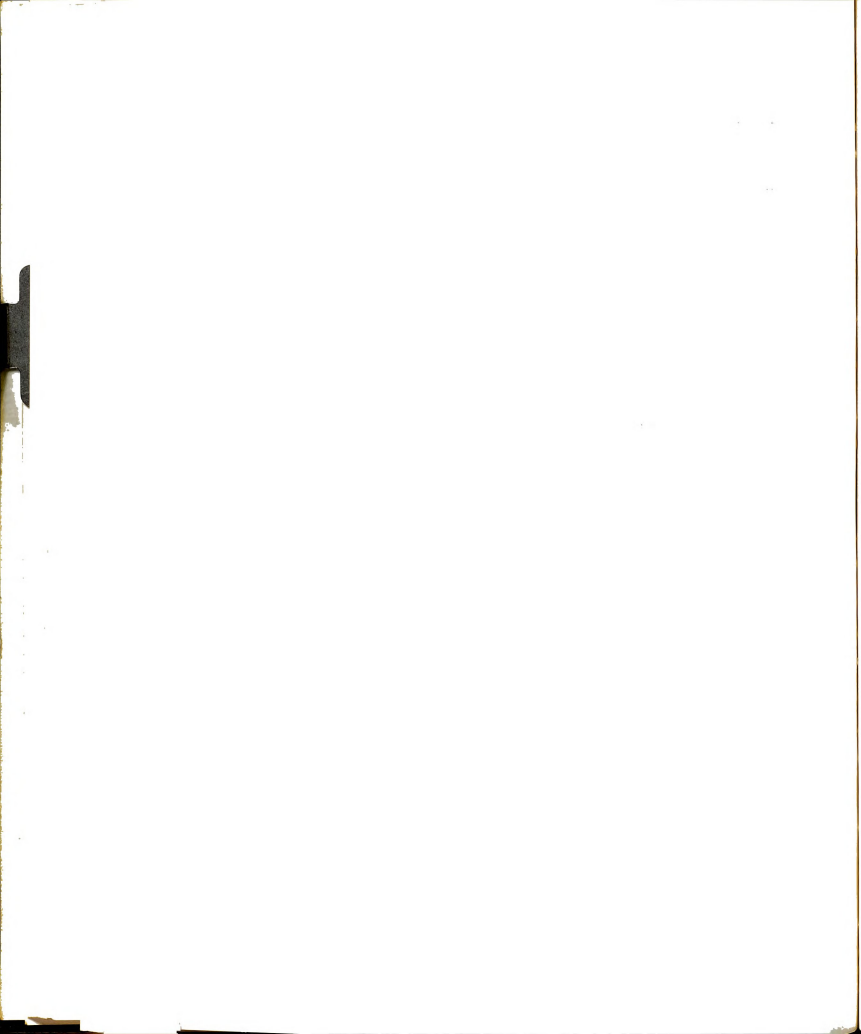
Studies utilizing standardized tests and "other" data collection procedures in research tend to be published in those journals most adequately reporting research.

Studies utilizing Pearson correlations and factor analysis techniques tend to be in journals having less adequate research reports.

The occurrence of analysis of variance, reliability, T-tests, chi square, other non-parametric techniques, and means contribute most toward an estimation of the adequacy of research reports.

The less restrictions imposed on the length of an article by a journal, the more likely that journal is to have highly adequate research reports.

Professional journals in education are primarily interested in the college teacher.



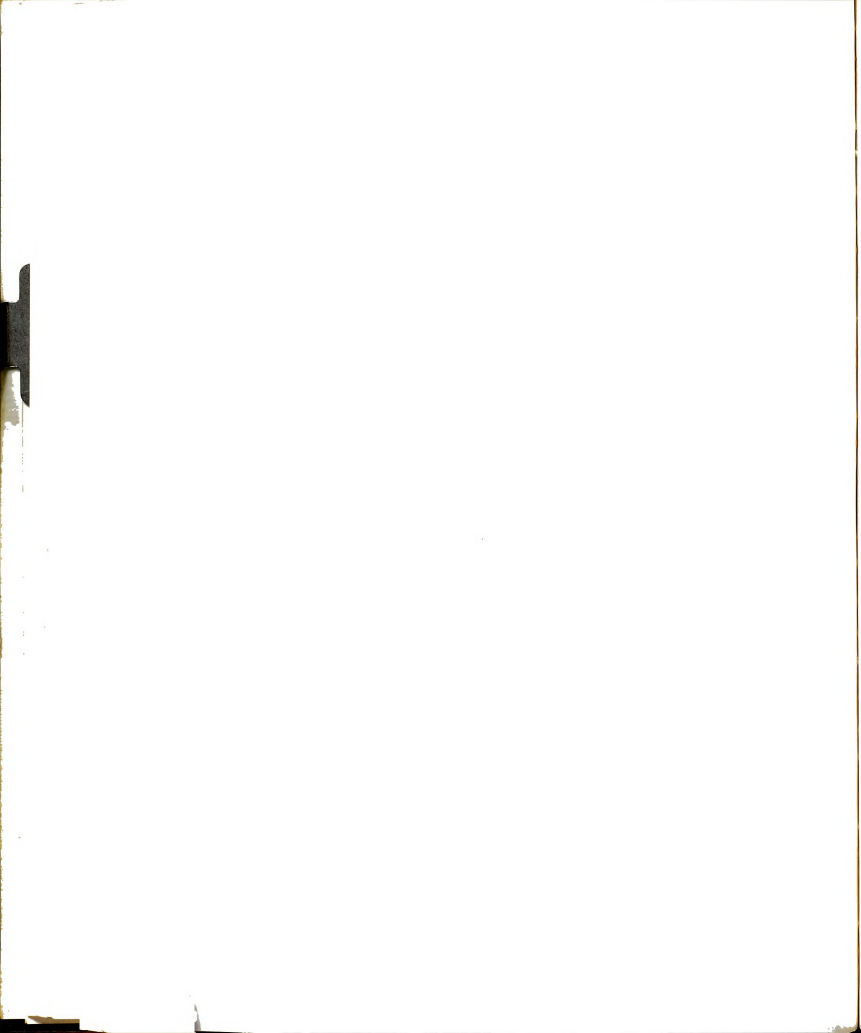
Less than one-third of the professional journals in education are primarily interested in the researcher.

About one-sixth of the professional journals in education are primarily interested in the public school teacher.

#### Overview

This chapter contains a description of the analysis used and the findings of the study. Chapter V will present the conclusions reached and suggestions for further study derived from this study.





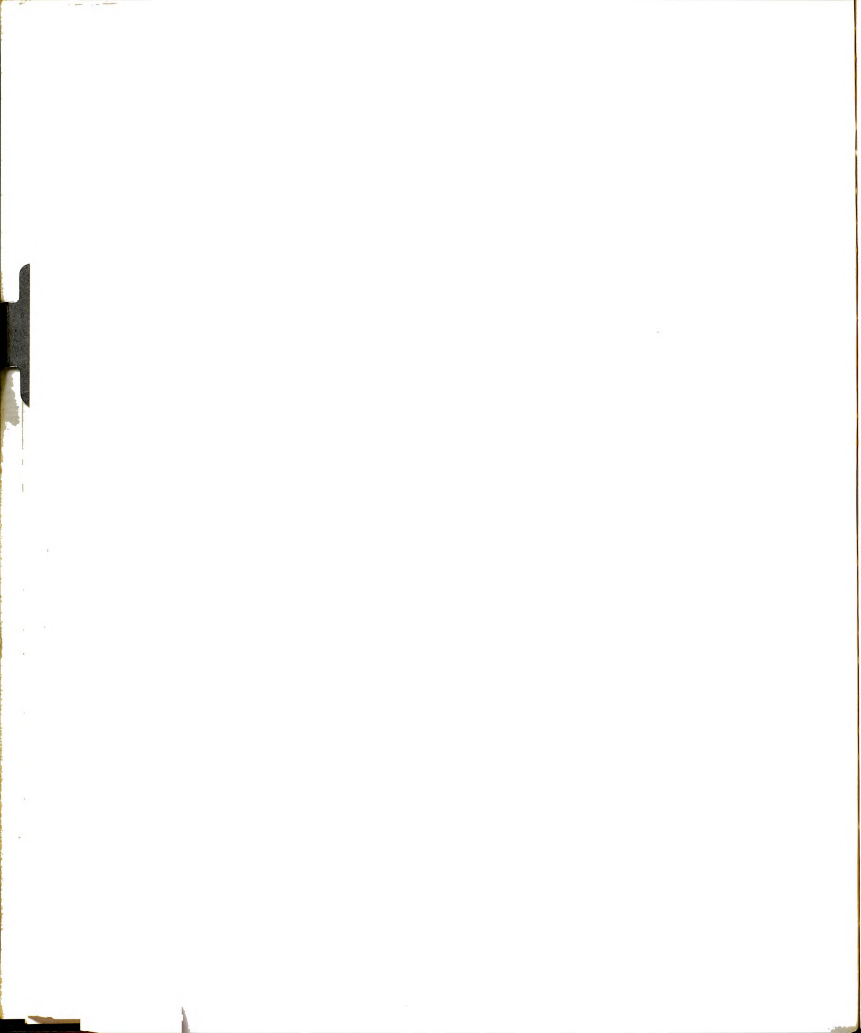
## CHAPTER V

### RATIONALE FOR THE STUDY, METHODOLOGY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

This chapter will provide an overall summary of the research study. The rationale for the study and the methodology utilized to investigate the topic of interest will be summarized in the first two sections. The third section will deal with the conclusions derived from the statistical analysis and, in conclusion, recommendations for further study of the topic will be presented.

#### Rationale for the Study

During the past two decades there has been an increase in the funding available for research in education. As a result there has been an equivalent increase in the number of research projects undertaken. In order for research to be utilized by other researchers for the expansion of knowledge in the field or by practitioners to improve the quality of the outcome of the educational process, the results of research must be available. Previous research has indicated that both researchers and practitioners in education rely heavily upon professional

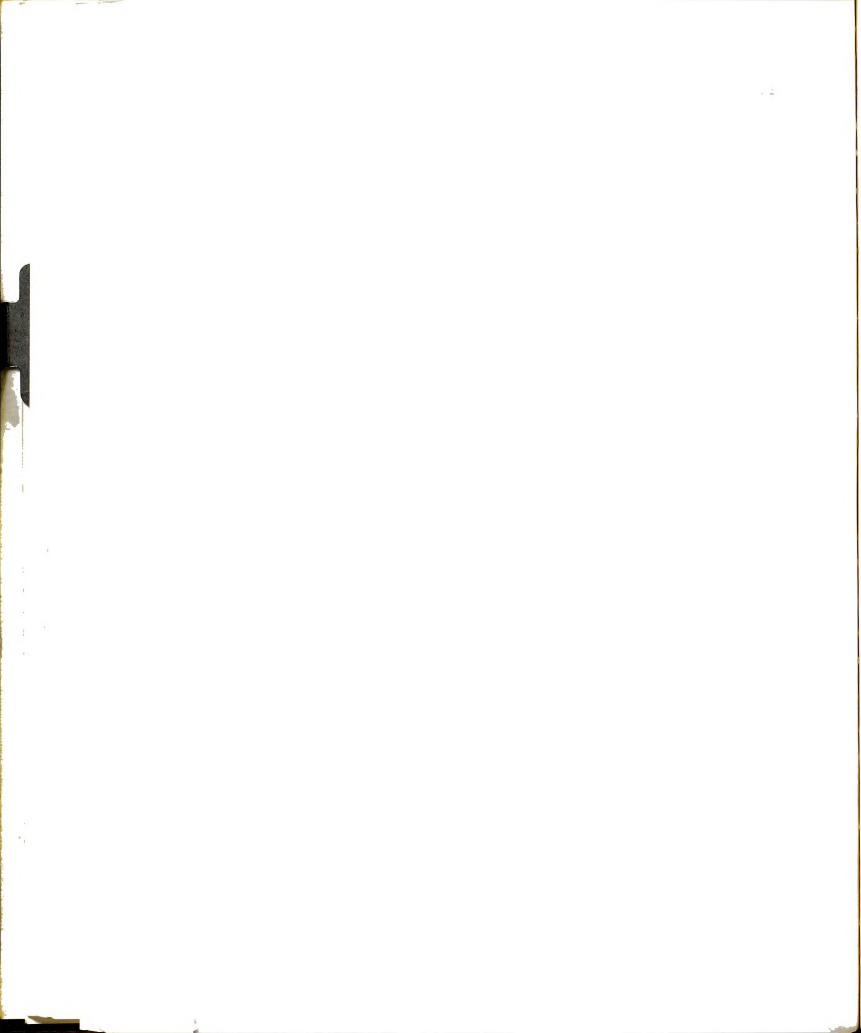


journals as a source of reports of the research recently completed. As the needs and expectations of the various types of educators differ vastly over the continuum of needs, the professional journal in education occupies the precarious position of seeking to satisfy the whole continuum of needs. This expanded role, however, is not necessarily of their own choosing.

#### Methodology

This study utilized a mailed survey to the editors of professional journals in education as well as a direct investigation of the journals surveyed to examine the question of whether or not current professional journals in education are fulfilling their role as information disseminator to both researchers and practitioners in the field of education.

In order to accomplish this goal several types of characteristics of the professional journal were investigated, including intended readership; journal's physical characteristics, such as number of pages and number of years published; topics; type of articles, that is, whether it is a report of a research project, a review of previously reported research, or an expository article; data collection procedures reported; statistical methods reported; and the completeness or adequacy of the research reports themselves.



## Objectives

The primary objective of this study was to answer the following question with regard to the field of education:

Are the professional journals fulfilling their role as information disseminator to both researchers and practitioners?

In order to answer this question, a synthesis of the answers to the following questions was made.

For what types of readers are professional journals in education intended?

What journal characteristics are significantly related to intended readership?

What topics are significantly related to intended readership?

Is there a relationship between type of article and intended readership?

Is there a relationship between intended readership and adequacy of research reports?

What data collection procedures are significantly related to intended readership?

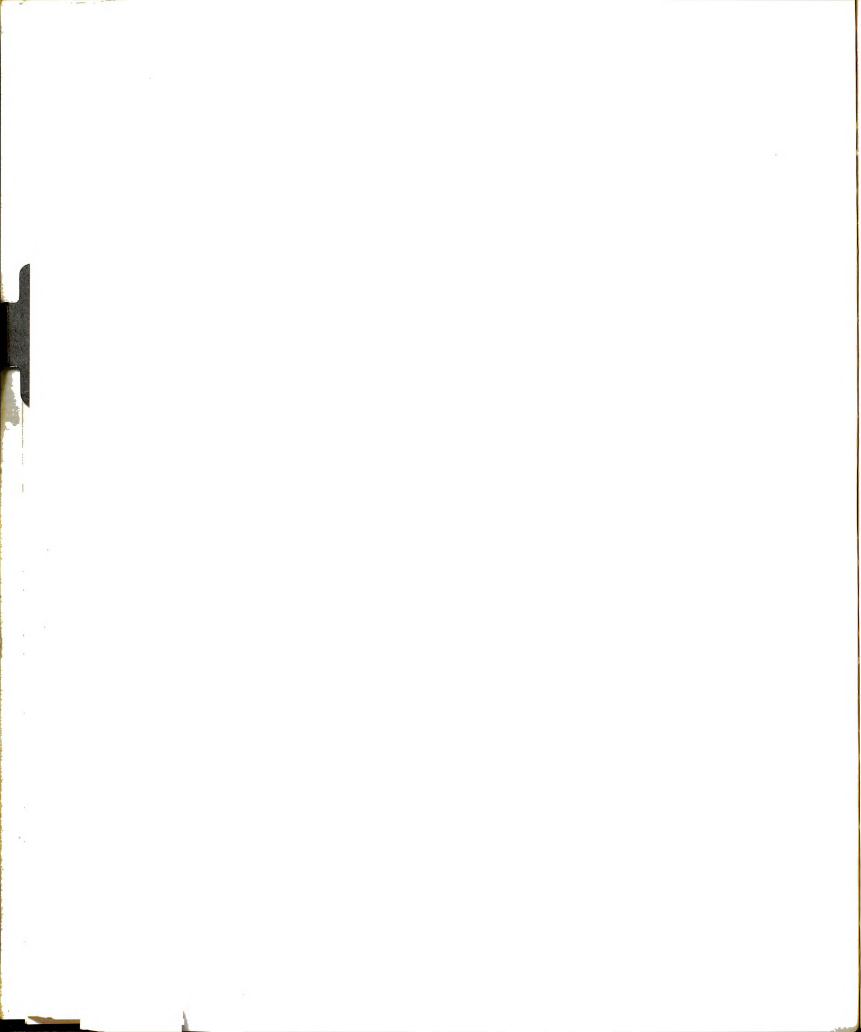
What statistical methods reported are significantly related to intended readership?

What publication policies are significantly related to intended readership?

What journal characteristics are significantly related to adequacy of research reports?

What topics are significantly related to adequacy of research reports?

What data collection procedures are significantly related to adequacy of research reports?



What statistical methods reported are significantly related to adequacy of research reports?

What publication policies are significantly related to adequacy of research reports?

### Sample

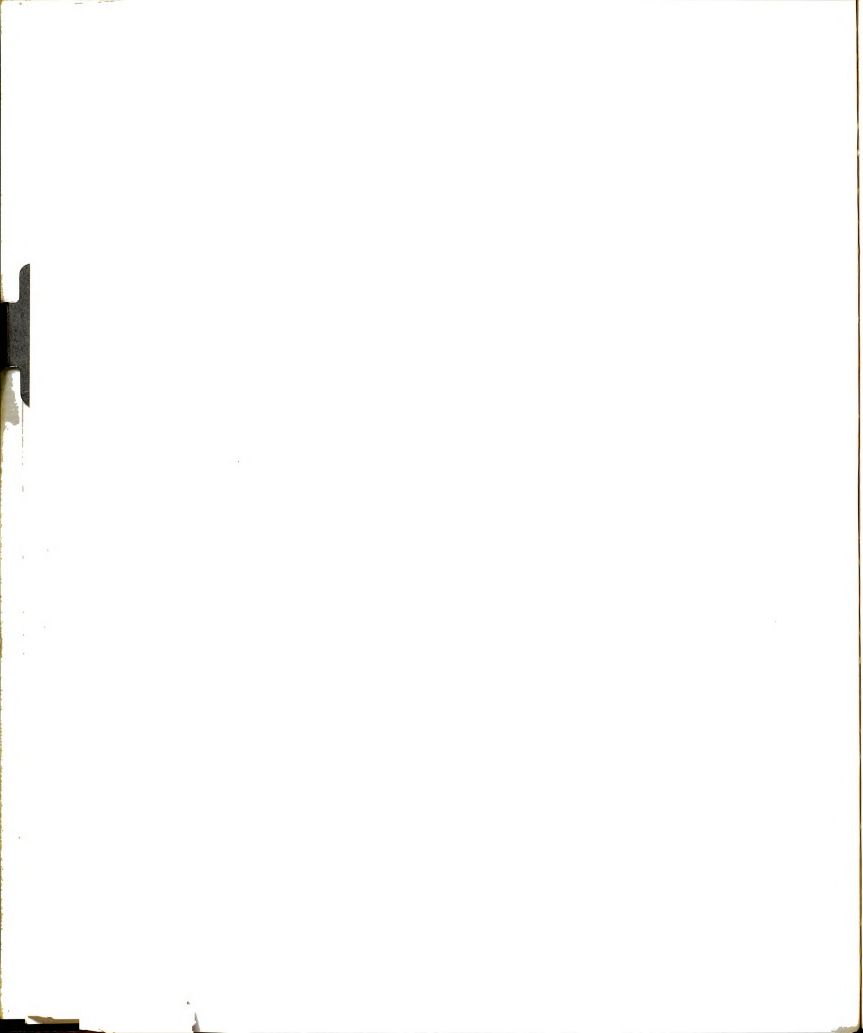
In order to accomplish the objectives, a sampling frame was selected which included journals that were selected for their exclusive devotion to education and which have earned a position of importance in the field.

The resulting list of journals was then stratified on the basis of number of issues published per year and then ordered within each stratum according to average monthly circulation. Systematic sampling was utilized taking three random starts with each start selecting a one-ninth sample. The sample size was selected so that it was sufficiently large to indicate any characteristic occurring in at least 10 percent of the population with a standard error of less than .05 even considering non-response. This conclusion was arrived at through the use of the formula

$$n' = \frac{\sum^h W_h P_h (1 - P_h)}{(.05)^2} \text{ so that } n = \frac{n'}{1 + n'/N}$$

where  $W_h$  = the weight of the stratum in the population,  
 $P_h$  = the proportion to be detected within the  
 stratum,





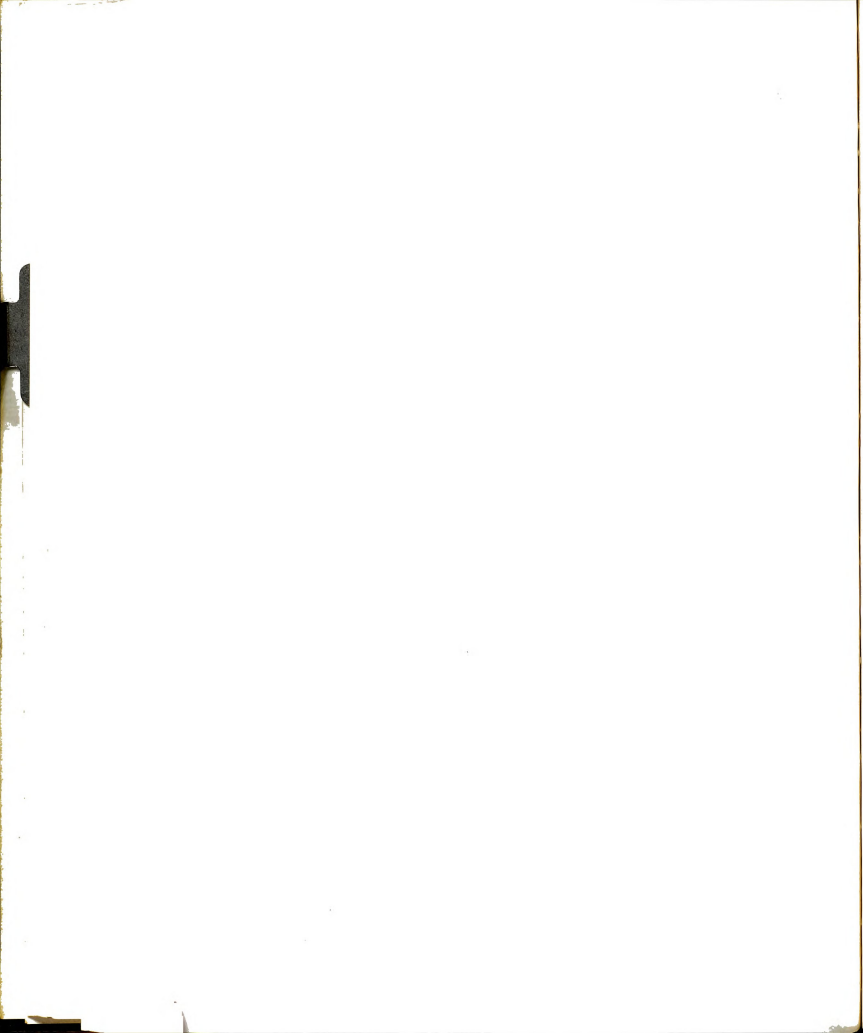
$N$  = the number in the population, and

$n$  = the number to be sampled,

which indicates the need for a sample of slightly more than 20 percent of the population. A sample of 37 professional journals resulted, 22 of which publish 2-6 issues per year and 15 of which publish 7-12 issues per year. A response rate of 76 percent was obtained to the questionnaires sent to the editors, a response that was more than the 60 percent required for the minimum precision desired.

#### Data Collection

Two methods of data collection were utilized for the study. The first was a questionnaire mailed to the editors of the selected journals. This questionnaire dealt primarily with questions related to readership and publication policies. The second method was an intensive investigation of the contents of specific randomly selected issues of the sampled journals. This investigation dealt directly with the 'articles' characteristics of interest and the adequacy of the reported research as well as with the journal characteristics of interest. The selected issues and articles were objectively evaluated through the use of checklists that required specific counts or indications of the presence or absence of the desired information. Topics, however, were subjectively divided into groups that appeared to be as similar as possible with regard to the content discussed within each.



### Data Analysis

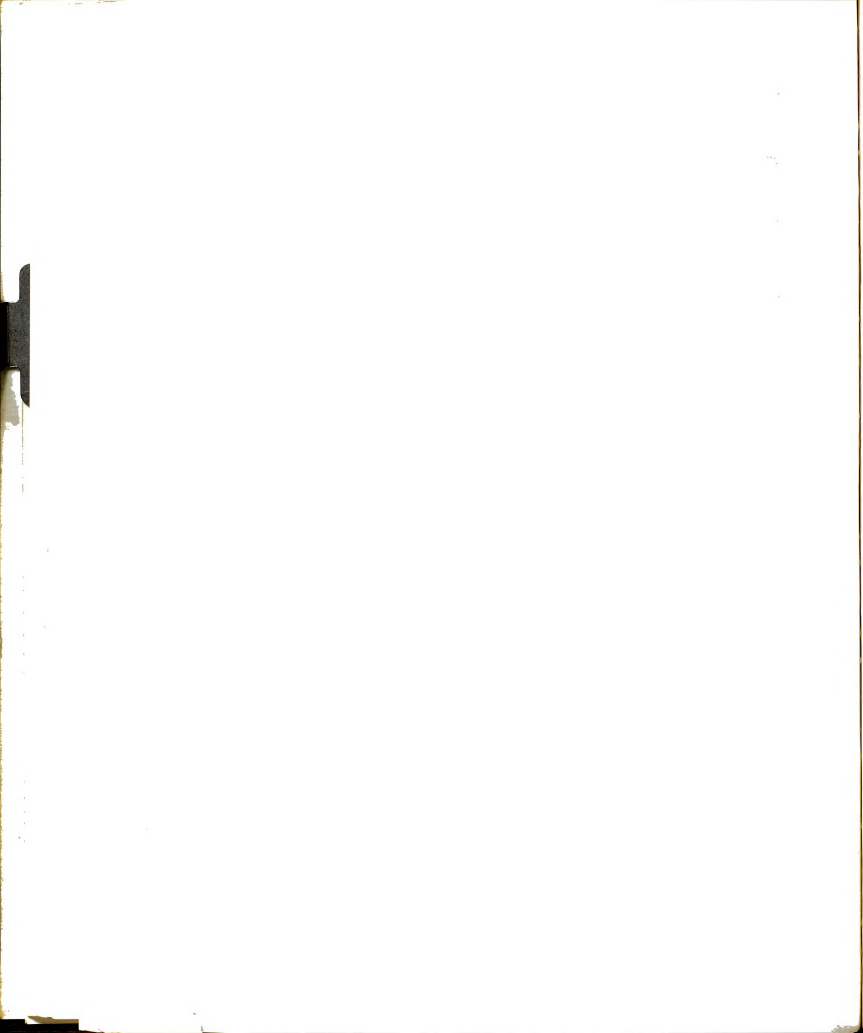
Canonical correlation analyses were employed to determine the maximum correlations which could be obtained between the sets of weighted values, thereby representing the relative importance of each of the elements within each group of characteristics, including journal characteristics, topics, data collection procedures, statistical methods, and publication policies, when compared to intended readership and adequacy of research reports. Canonical analyses also compared these two major variables.

A summary table was utilized to answer the question of the readership for whom the journals were intended.

Multivariate analysis of variance was utilized to determine differences between strata associated with the type of reader for whom the journal articles were intended. As the only difference was in the proportion of articles intended for researchers, all subsequent analyses were calculated on the total sample.

### Limitations

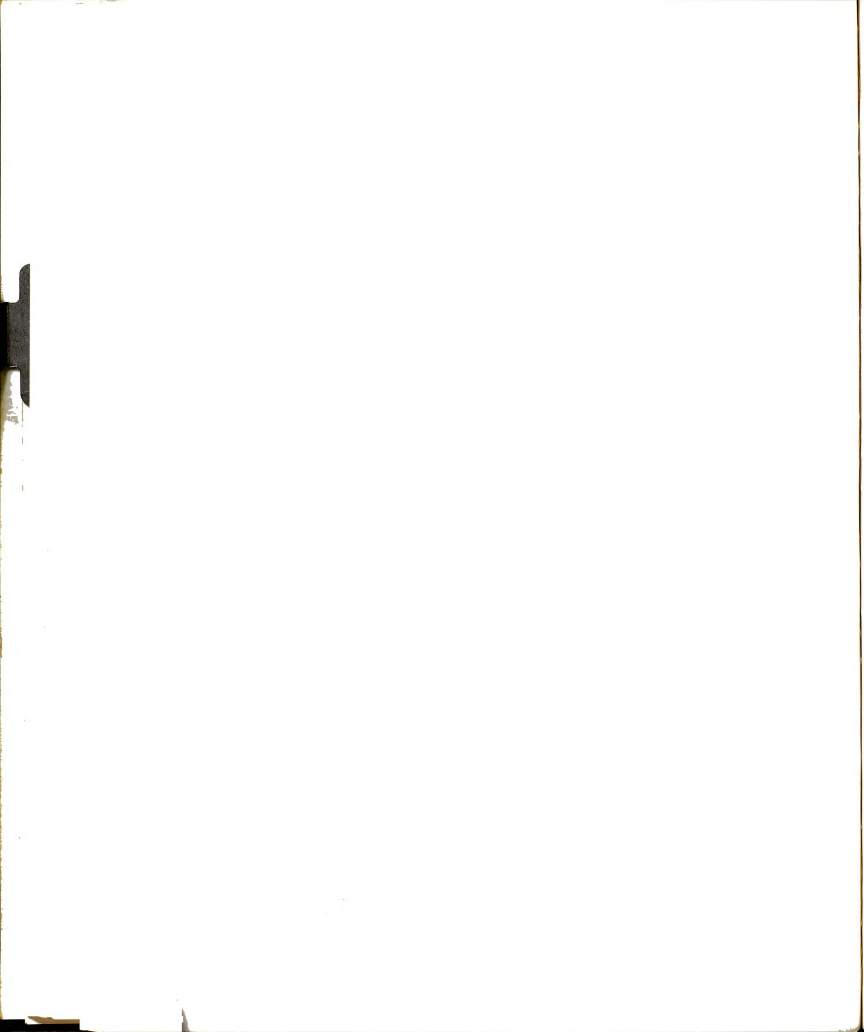
The primary factor limiting the derivation of conclusions from this study is the exclusion of those professional journals for which the distribution is primarily localized within a state or region rather than on a national scale. These localized journals frequently are not referenced in the Education Index. However, even those which are referenced are not referenced



entirely; therefore, they were excluded from this study in order to also eliminate any journal that is not entirely related to education. These localized journals may be intended for a different type of readership than found in the sampled population. Format, coverage, publication policies and other characteristics are also assumed to be different. Therefore, further study is needed to compare these professional journals not included in the sampling frame to those which were included.

Another limitation was the small number of journals included in the analysis when compared to the number of variables within several of the groups of characteristics. This situation led to a very narrow range of weights for each of the variables, and therefore made it difficult to detect small differences. One is also falsely led to believe large amounts of variance have been accounted for. A related problem results from non-homogeneity of the variables within sets resulting in unstable weights. These weights should thus be interpreted with reservation.

A third limitation was the questionnaire used. As this was an investigative study for initial exploratory purposes, certain aspects of the questionnaire became redundant even though it had been pre-tested on several editors who were not included in the survey.



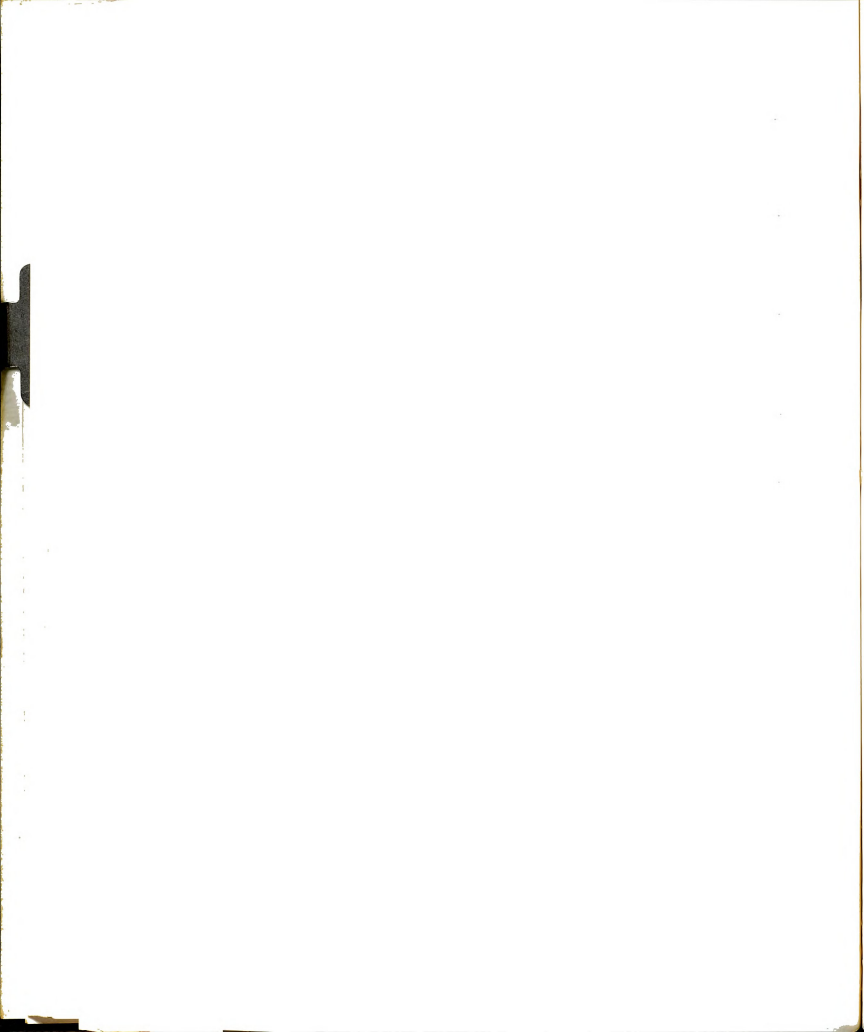
### Conclusions

Several conclusions were formulated from the results of the statistical analysis of this study.

The evidence obtained from this study indicates that college teachers are the primary intended readers of educational professional journals, a finding that agreed with previous studies. College teachers are the intended readership for both new and old journals and for those published from two to twelve times per year. There is surprisingly little interest in the pre-college teacher although this is the largest group of readers. Only the older journals show an interest in this group, with the newer and less frequently published ones being interested primarily in the researcher.

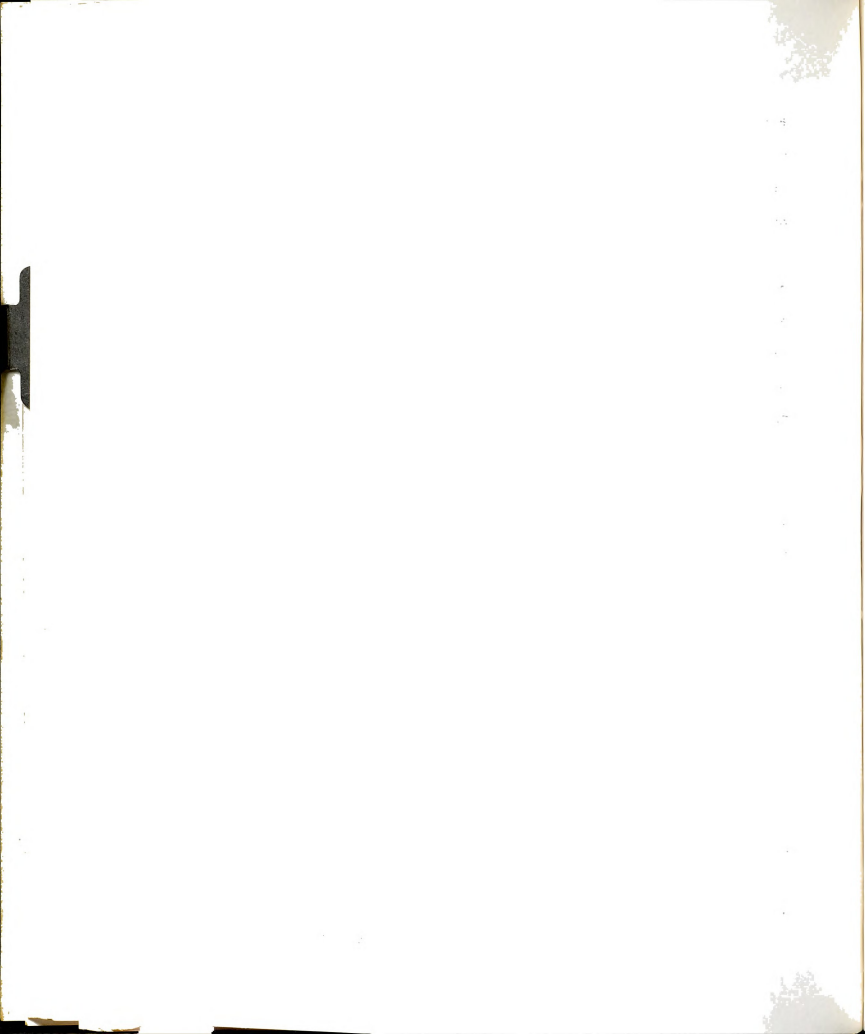
The journals primarily intended for the researcher also have highly adequate research reports. This is not surprising, but the fact that this is the only type of reader for which there is a significant correlation with adequacy should be of concern. Very few of the articles submitted to these research oriented journals must be re-written. Manuscripts for this group are frequently required to be in a specific form and evaluation guides are often used in the article evaluation process. It appears that researchers are as careful in their submission of the report of their research as they are in their research. The same care is also most often utilized





in the acceptance policies of the journals to which they are submitted.

Those journals intended primarily for researchers include primarily research articles that deal with topics related to cultural influences on education, learning and development, and college curriculum. These areas then appear to be the most thoroughly researched. There are also frequent articles, both reports of research and expository, dealing with research methodologies and practices. Very few articles deal with teaching topics, particularly in the cognitive areas, again an indication that the complaints of teachers regarding researched areas may be justified. The research reported in the journals with a high level of interest for the researcher tend to follow the traditional experimental designs with specified controls on error. They often include interviewing or interacting with the subject as a data collection technique, but seldom do they make use of standardized or previously tested instruments. The research is usually analysed by the more complex statistical approaches, with several types or levels of analysis being reported. As the measuring instrument is frequently ad hoc to the situation researched, there is little that is comparable to similar studies. Agreement or disagreement must then basically be assumed based upon the conclusions each researcher derives.



Those journals which are intended for college teachers are about equally divided in the types of articles published between reports of research and expository articles. However, those most interested in this group of readers are the least likely to publish highly adequate reports of research. A specific form for the submission of manuscripts is seldom required and evaluation forms are seldom used when the manuscripts are reviewed. Often articles are required to be re-written before they can be published, and are re-read by reviewers prior to acceptance. The topics available in journals for these readers are numerous, but currently tangible teaching aids and materials are frequently expected to be of great interest. Thus, the editorial policy toward articles for this group of readers tends to be much more subjective than objective. It is difficult to have a controversial article published by those journals because of the larger number of reviewers necessary for approval.

There are few professional journals in education that have an interest in pre-college level teachers. Those that are intended for this type of reader include primarily expository articles concerning teaching methodologies in the cognitive areas, public school curriculum, and miscellaneous. Such manuscripts are accepted for publication less readily than those intended for counselors. Thus there is little research done in the areas of major

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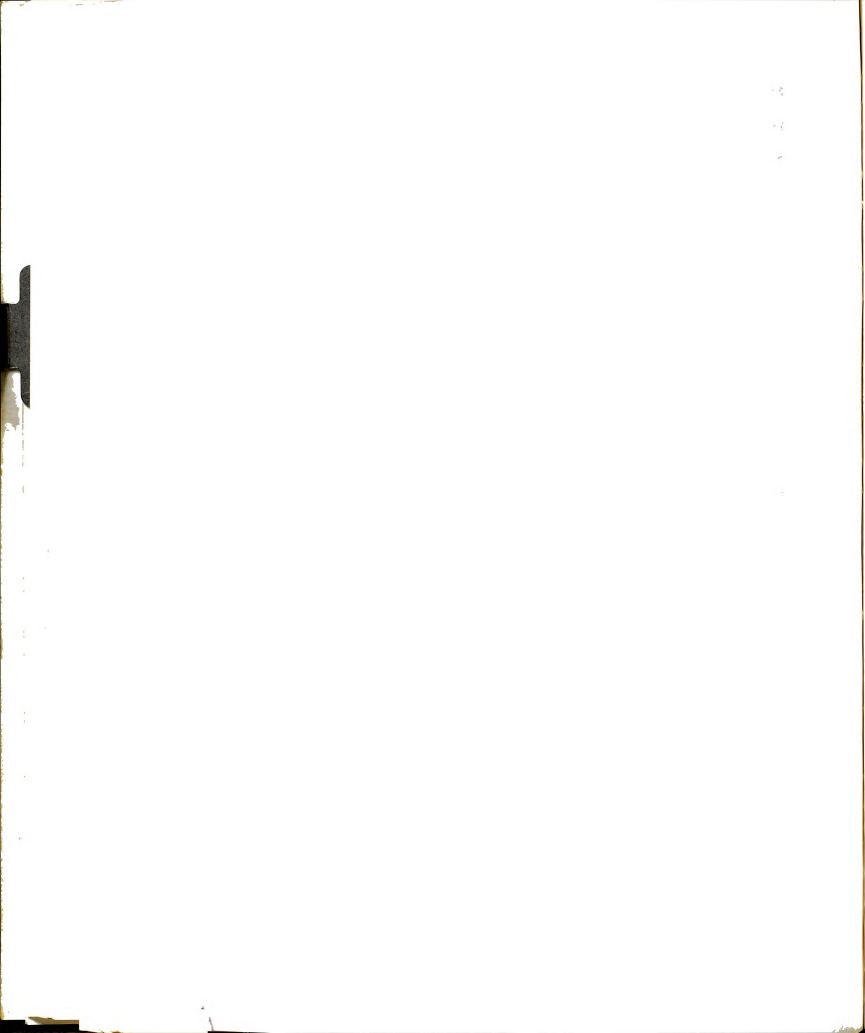
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interest to these readers. In fact, based upon what is published in these journals, there is little research at all carried out in the field of education which is considered appropriate for their needs.

Journals with a high interest in administrators as their intended readership have been in existence for a long time and are fairly easy to obtain. They typically include articles dealing with personnel, teaching methodologies in the cognitive areas, faculty role, and other administrative areas. The editors of these journals tend more to shield their readership from what they consider inappropriate material than do the editors of journals intended more for other types of readers.

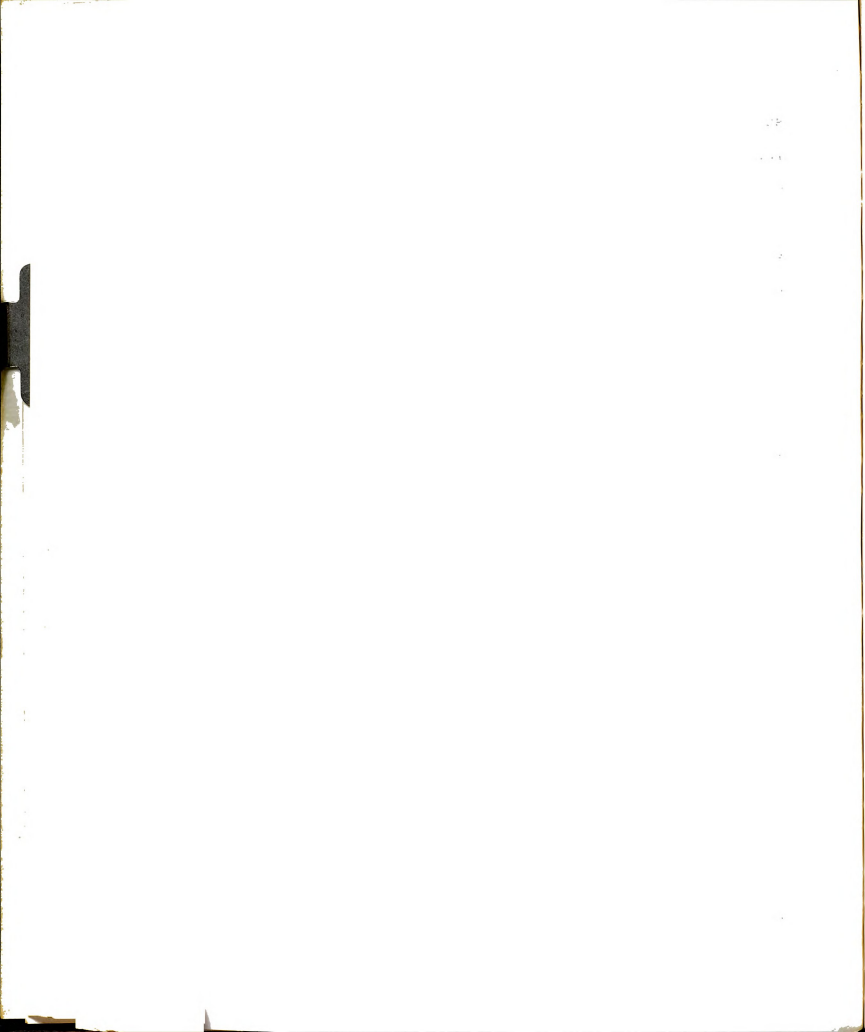
Those journals having an interest in counselors as their readership include many articles dealing with counseling methodologies. The articles included in these journals are often reports of research utilizing standardized tests, questionnaires, pre-existing records, or some of the less popular data collection methods. In general, the less complex statistics are described in these reports. Factor analysis is frequently employed. In order for a manuscript to be considered for publication in these journals it typically is reviewed by more people than are those intended for researchers or college teachers. However, they are accepted more readily than those intended for teachers. There is little written



for this group of readers and that which is, frequently is published, with little trouble and is distributed as conveniently as possible.

Reports of research which are adequately described tend to appear in journals published only a few times per year, although not to a statistically significant degree when considered separately. There are also less restrictions placed on the length of the article, thereby allowing a more thorough report. Certain topics appear to be researched more than others, although they may be only reported less adequately. However, since these include such areas as teaching methodologies in the affective areas, college curriculum and legal areas, the assumption may be made that they are less frequently researched. The adequate reports of research tend to utilize standardized tests or other not frequently used data collection techniques. A combination of observation and questionnaire as the techniques utilized are indicative of a well-reported study. On the other hand, a combination of standardized tests and experimental design is frequently less well reported. Those journals having the most adequately reported research tend to publish reports of studies utilizing a variety of complex analyses. The less adequately reported studies tend to utilize the less complex but basic design analyses such as analysis of variance, T-tests, and chi-square tests.





Thus it is indicated from the results of this study that the professional journals in education are not fulfilling their role as the as the information disseminator which is expected of them by all levels of educational professionals. Those who are responsible for teaching research methodologies, college teachers most often, are not exposed to adequate reports of research through the journals. If these people are, in fact, active researchers in addition and read the journals intended for researchers, their constant exposure is to a better model but they then have less time to keep up with the current issues in education.

Those journals intended for pre-college teachers contain very few reports of research. As these journals are more easily available to the teacher than are those which contain reports of research, regardless of the quality of the report, this group of readers can be expected to feel that they are being ignored in research endeavors.

It is apparent that researchers for many years have also been ignored by the professional journals. education and are now beginning to demand more consideration as shown by the recent increase in the number of journals intended primarily for this group of readers. However, researchers also have a responsibility, which so far has not been accepted--that of seeing that knowledge of their research is available to the practitioners.

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Many topics are being researched and reported which would be relevant to the teacher, but for all practical purposes the results of these studies are unavailable.

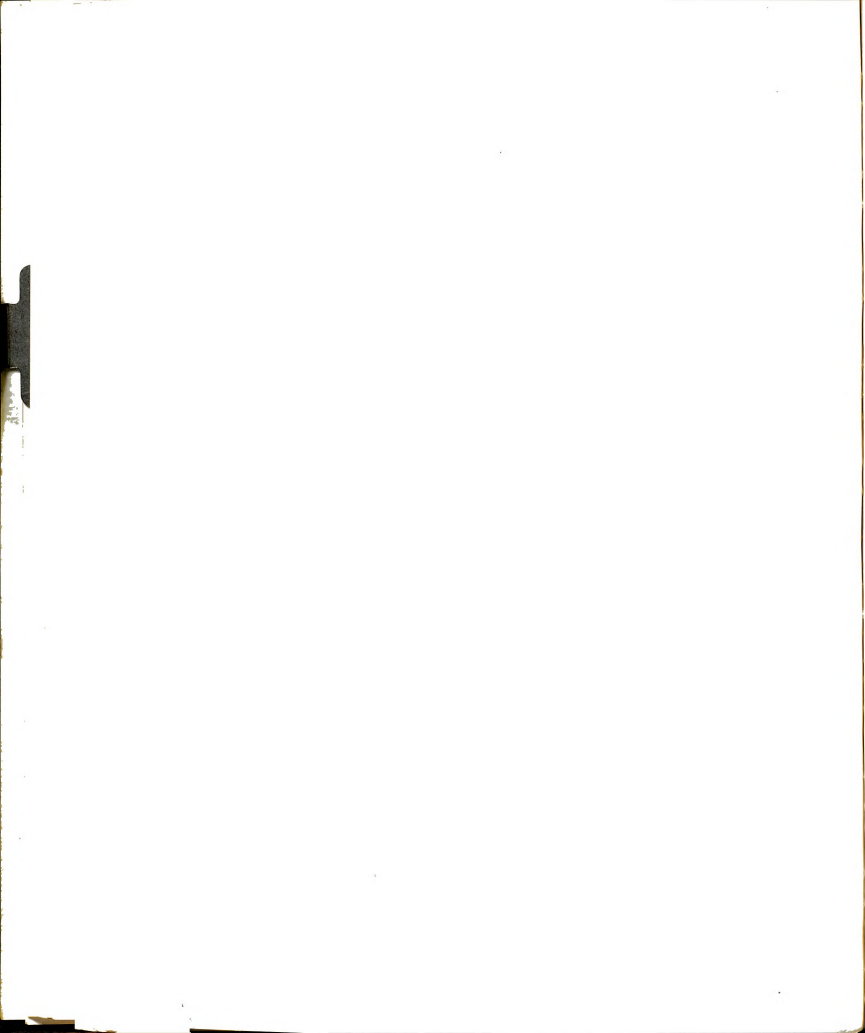
#### Recommendations for Further Study

This study was unable to provide information as to all the relationships between the various types of characteristics studied and their relationship to intended readership and adequacy of reports of research. Therefore, further study should be undertaken to obtain a clearer understanding of the total situation.

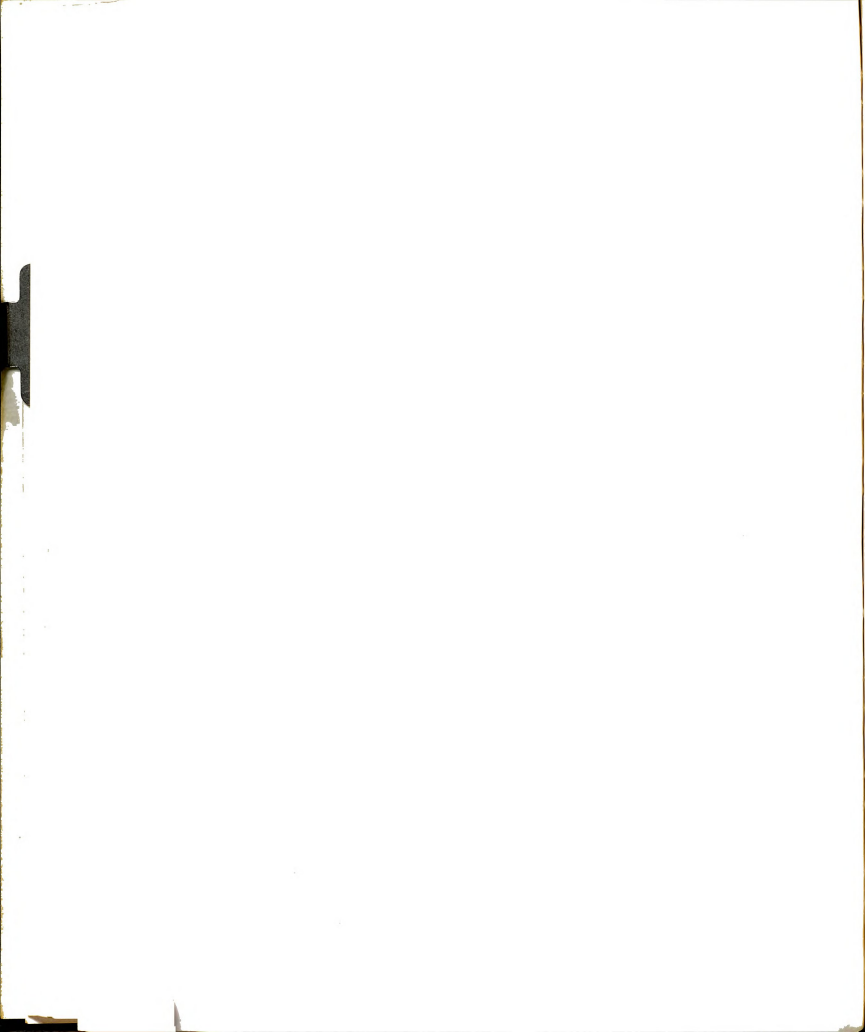
This should include a study of the readership of the professional journals to determine whether they correspond to the editorial policy concerning intended readership. Another aspect of the readership study should include an investigation of what specific types of readers expect and/or would like to see in the journal articles.

As this study was based on a small number of subjects and a comparatively large number of articles, a number of more narrowly defined studies should be undertaken in order to validate the results of this study. Similar studies or groups of studies carried out on the less nationally circulated professional journals in education would increase the knowledge to an area not covered by the present study.

The information obtained from this and following studies should then be utilized in setting up a more



efficient system to disseminate the important information to all types of professional readers in a form most useful to them.



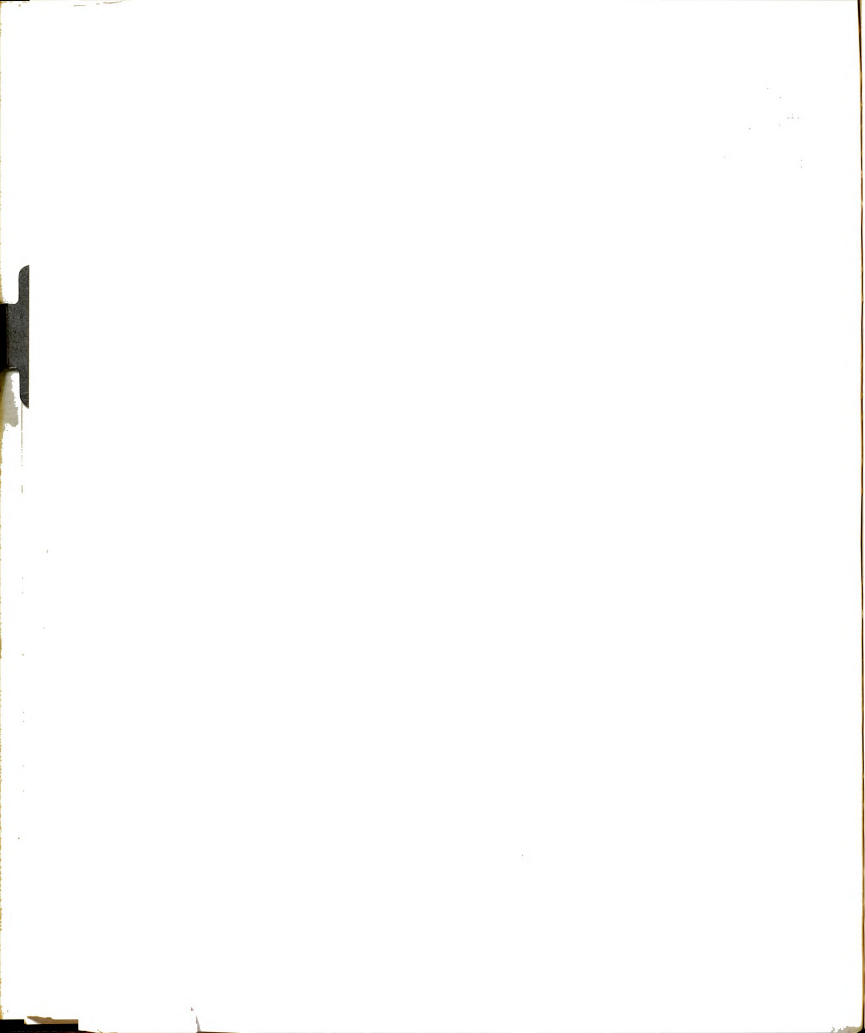
APPENDICES



a group of persons who are not  
 in the same way as the others  
 in the same way as the others

APPENDIX A

QUESTIONNAIRE



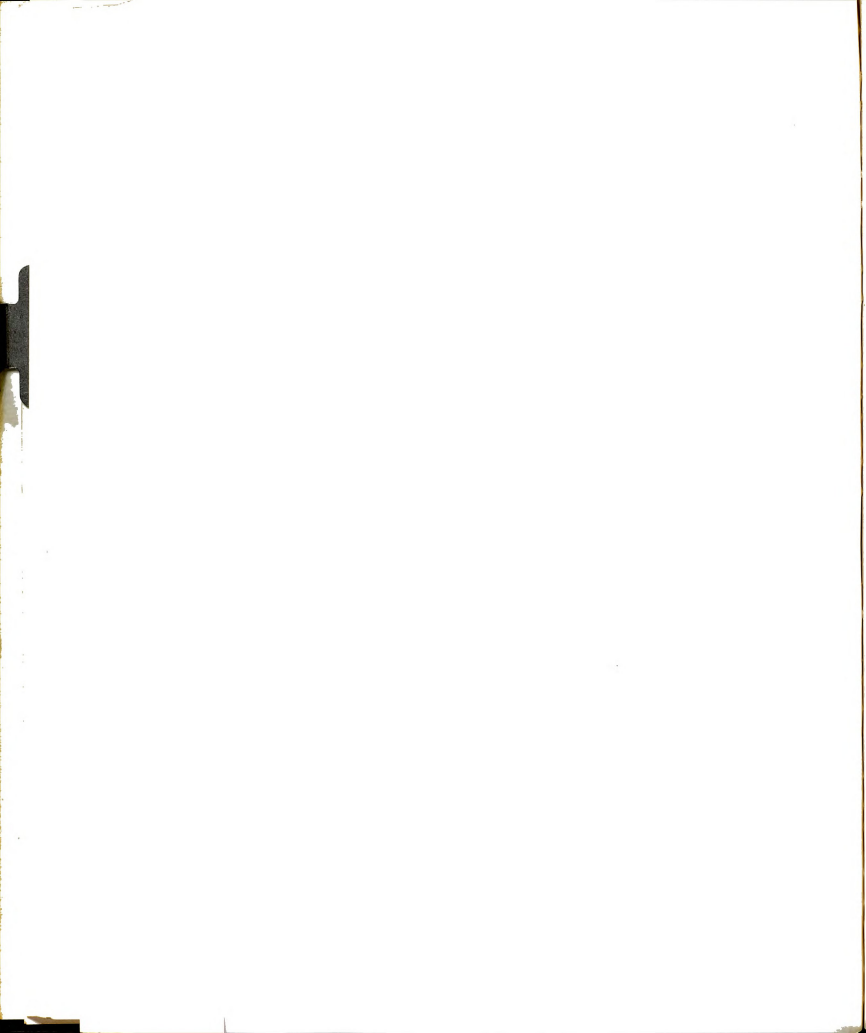
## QUESTIONNAIRE

ANSWER ALL OF THE QUESTIONS AS COMPLETELY AS POSSIBLE.

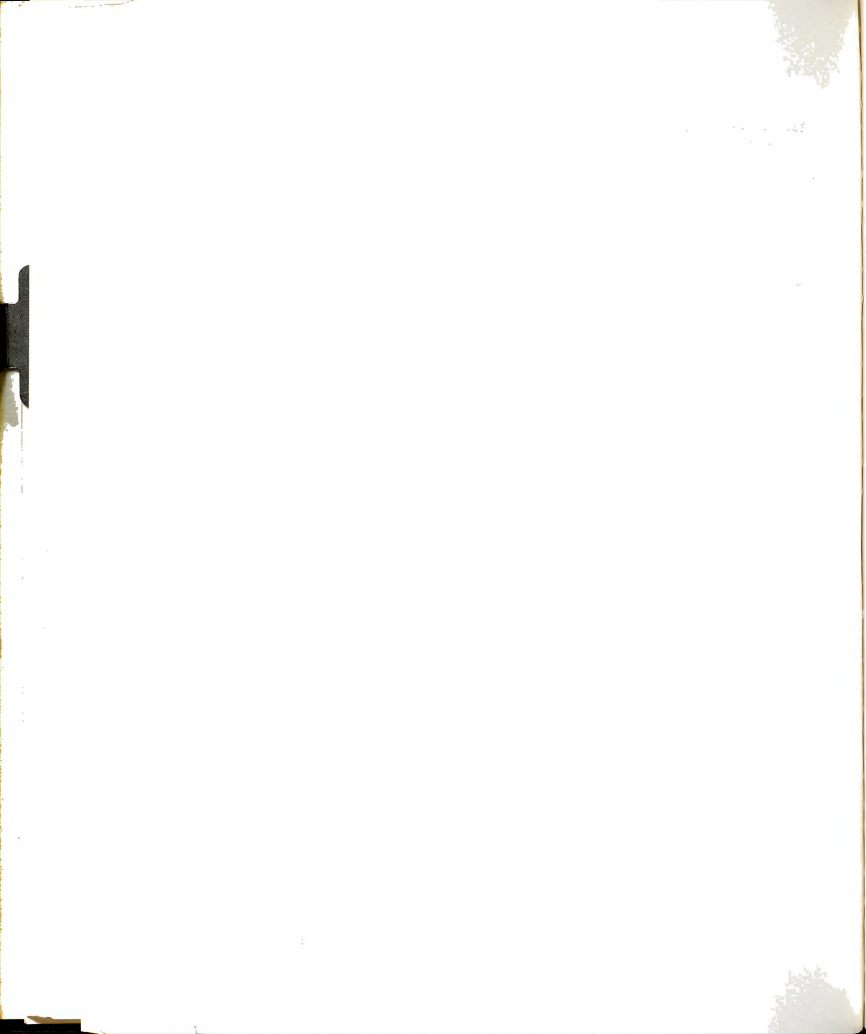
1. What was the first year of publication of your journal (under this or another name)? \_\_\_\_\_
2. What was the 1972 average circulation per issue of this journal? \_\_\_\_\_
3. It is realized that most articles are of interest to many different kinds of readers. However, would you please indicate what percent of the articles published in this journal would be primarily of interest to each of the following categories of people.
  - \_\_\_\_\_ Theoretical or applied researcher
  - \_\_\_\_\_ College or university educator primarily interested in teaching
  - \_\_\_\_\_ School or university administrator
  - \_\_\_\_\_ School or university counselor
  - \_\_\_\_\_ Elementary or secondary teacher
  - \_\_\_\_\_ Other (please specify) \_\_\_\_\_
4. Which of the following are most descriptive of the ways in which this journal is distributed regularly other than in libraries? If more than one applies, please indicate the approximate percent of total distribution included in each.
  - \_\_\_\_\_ Accompanies membership in a parent organization--membership only through recommendation of current member
  - \_\_\_\_\_ Accompanies membership in a parent organization--membership solicited
  - \_\_\_\_\_ Subscriptions available on request
  - \_\_\_\_\_ "Over-the-counter" sales

FOR EACH OF THE FOLLOWING QUESTIONS PLEASE ANSWER FOR BOTH REPORTS OF RESEARCH STUDIES AND ARTICLES NOT REPORTING RESEARCH STUDIES. IF ANY OF THE ANSWERS ARE AVAILABLE AS POLICY STATEMENTS PLEASE FEEL FREE TO INCLUDE THOSE RATHER THAN RE-ANSWERING THE QUESTIONS, INDICATING THE QUESTIONS TO WHICH THEY CORRESPOND.

- |  | Research<br>reports | Non-<br>research |
|--|---------------------|------------------|
| 5. What proportion of articles submitted for publication are actually published?   | _____               | _____            |
| 6. For those articles accepted for publication, how long a period of time usually passes between the date an article is first received and the date of its actual publication? | R                   | NR               |
| Minimum time in months:  | _____               | _____            |
| Maximum time in months:  | _____               | _____            |
| Average time in months:  | _____               | _____            |



		Research reports	Non- research
7. Is the editor able to accept an article for publication without consultation with others?		R	NR
Yes		_____	_____
No		_____	_____
8. Is the editor able to reject an article without consultation with others?		R	NR
Yes		_____	_____
No		_____	_____
If an answer to either question 7 or 8 was yes, please outline briefly the basis on which these decisions are made.			
9. Is either a review board or group of expert consultants used as the exclusive reviewing group for article evaluation?		R	NR
Review board		_____	_____
Expert consultants		_____	_____
Neither exclusively		_____	_____
10. Are blind reviews used when prospective articles are sent to evaluators?		R	NR
Always, on all readings		_____	_____
Always on the initial reading		_____	_____
Sometimes		_____	_____
Never		_____	_____
11. Approximately how many people evaluate an article before it is accepted for publication?		R	NR
Minimum:		_____	_____
Maximum:		_____	_____
Average:		_____	_____
12. Approximately how many people evaluate an article before it is rejected?		R	NR
Minimum:		_____	_____
Maximum:		_____	_____
Average:		_____	_____



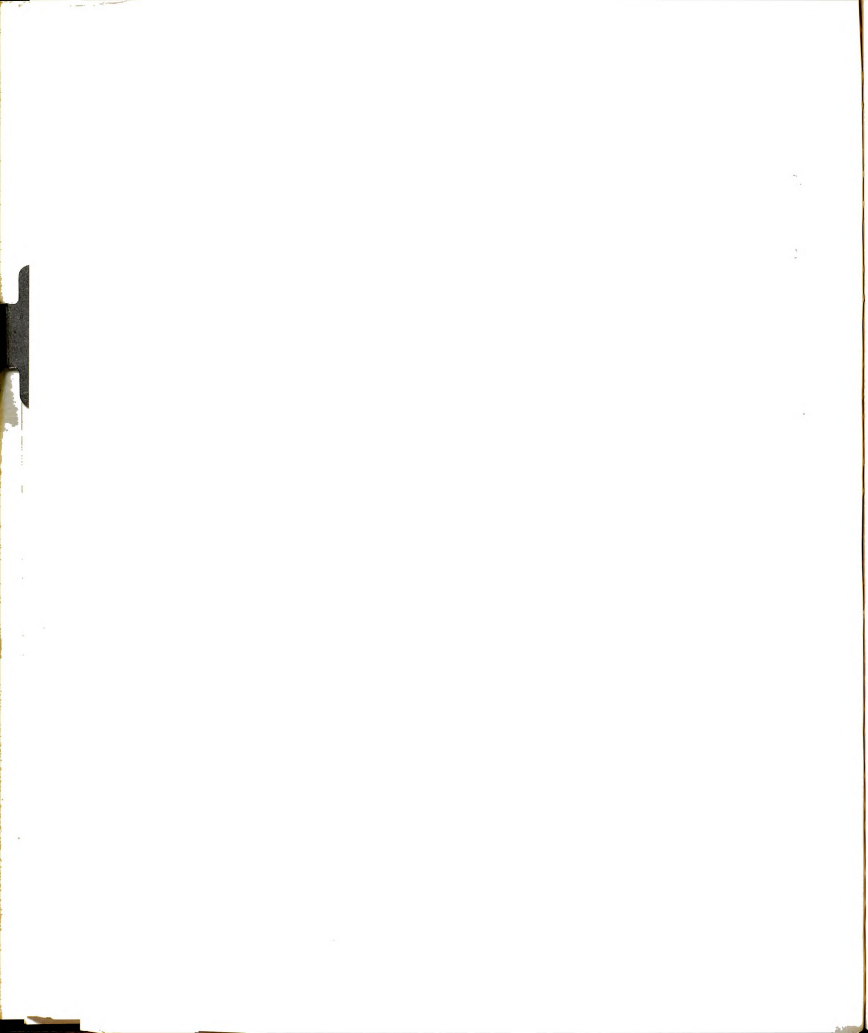
- |   | Research<br>reports | Non-<br>research |
|---|---------------------|------------------|
| 13. On what basis are prospective articles distributed to evaluators?   | R                   | NR               |
| Evaluator interest in topic   | _____               | _____            |
| Topic assigned to evaluator   | _____               | _____            |
| Evaluator's choice of articles  | _____               | _____            |
| Random assignment   | _____               | _____            |
| All read by same evaluators   | _____               | _____            |
| Other (please explain briefly)  | _____               | _____            |
| 14. What proportion of submitted articles are requested to be rewritten for reasons other than length reduction?          | R                   | NR               |
|   | _____               | _____            |
| 15. Are there specific criteria or guidelines set up for article evaluation which must be met for publication acceptance? | R                   | NR               |
| Yes   | _____               | _____            |
| No  | _____               | _____            |

If yes, please outline briefly (or include a copy if available) the criteria to be met or considerations given for an article to be accepted for publication. If different for research and non-research articles, include both.

- |  |       |       |
|--|-------|-------|
| 16. Are manuscripts required to be in a specific form or particular format for acceptance for publication? | R     | NR    |
|  | _____ | _____ |
| Yes  | _____ | _____ |
| No   | _____ | _____ |

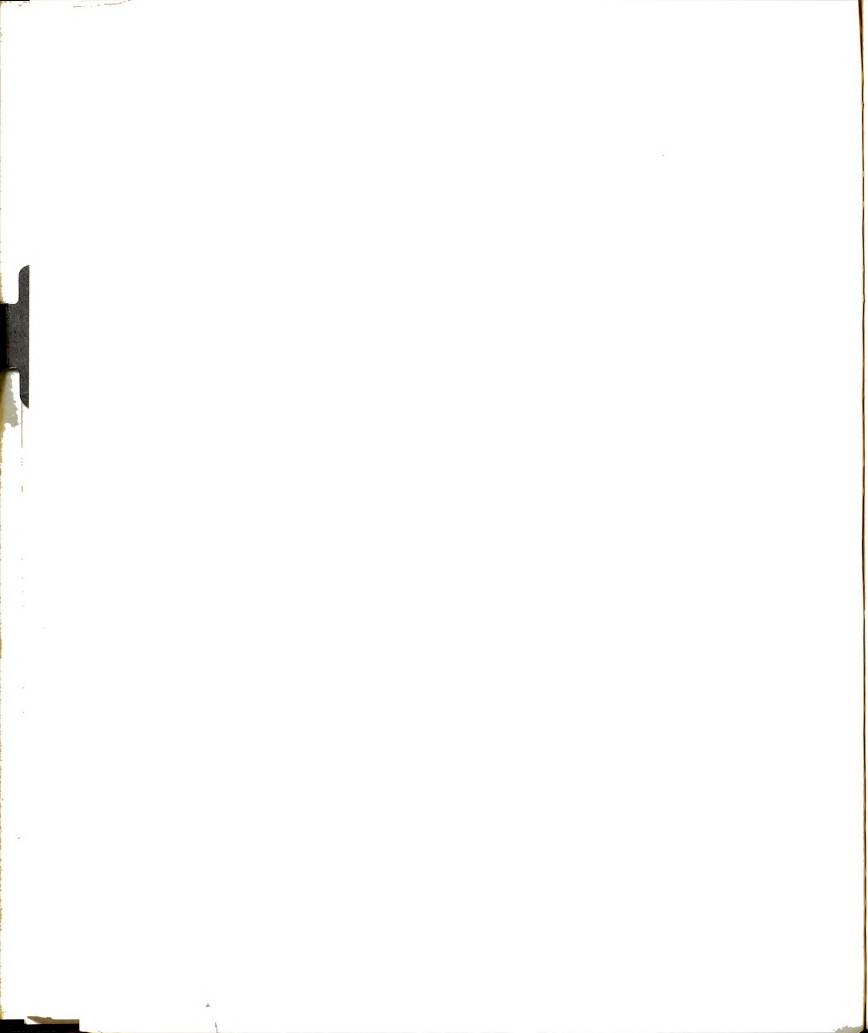
If yes, what standard or format is preferred? If the format preferred is specific to this journal, please include a description.





- |  | Research<br>reports | Non-<br>research |
|--|---------------------|------------------|
| 17. What length restrictions, if any, are imposed on articles published?   | R                   | NR               |
| 18. Is there a page charge or other expense required of the author prior to publication of an accepted article? If yes, please describe briefly. | R                   | NR               |
| Yes  | _____               | _____            |
| No   | _____               | _____            |
| 19. Can the author obtain an earlier publication date through the payment of special fees? If yes, please describe briefly.                      | R                   | NR               |
| Yes  | _____               | _____            |
| No   | _____               | _____            |
| 20. What privileges are extended to authors of published articles such as free reprints, etc.?   |                     |                  |
| 21. Under what conditions would a list of subscribers be available for further research?   |                     |                  |

Additional relevant information you may wish to include:



APPENDIX B

ADEQUACY CHECKLIST



ISSUE

VOL.

Author Affiliation

Type of  
Article

DATE

NAME

No. of Articles

Article

Non-U Res.

Univ. Teach.

Univ. Res.

Admin.

Counselor

Teacher

Other--  
Specify

Research

Review of Lit.

Exp. Lit.

Exp. Alone

Procedures Used

Questionnaire

Interview

Observation

Historiography

Projective

Records

3rd Party Eval.

Sociometry

Exper. Det.

Other--  
Specify

Statistics Reported

Correlation

Regression

t-Test

ANOVA

ANOVA

X

Friedman

Kruskal-Wallis

Kendall's Coef.

MANOVA

MANOVA

Disc. Func.

Canon. Corr.

Factor/Cluster

Univ. Regres.

Multiv. Regres.

Reliability

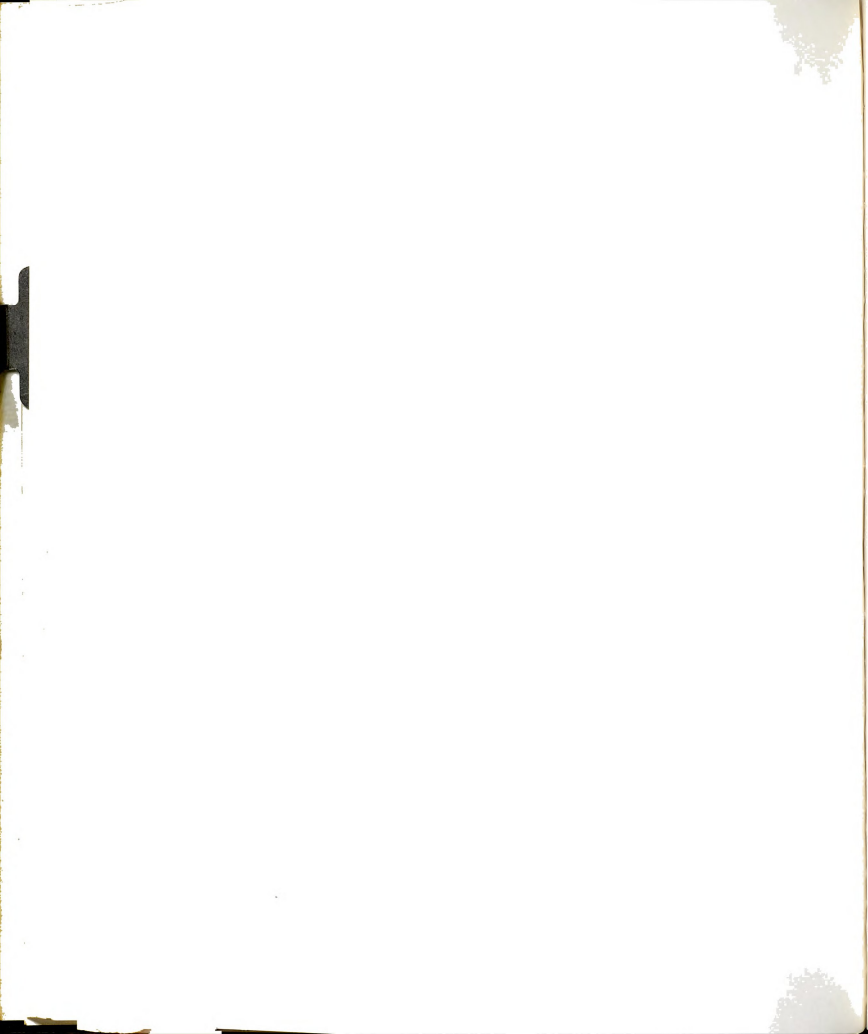
Name

Other--  
Specify

Emphasis

Method

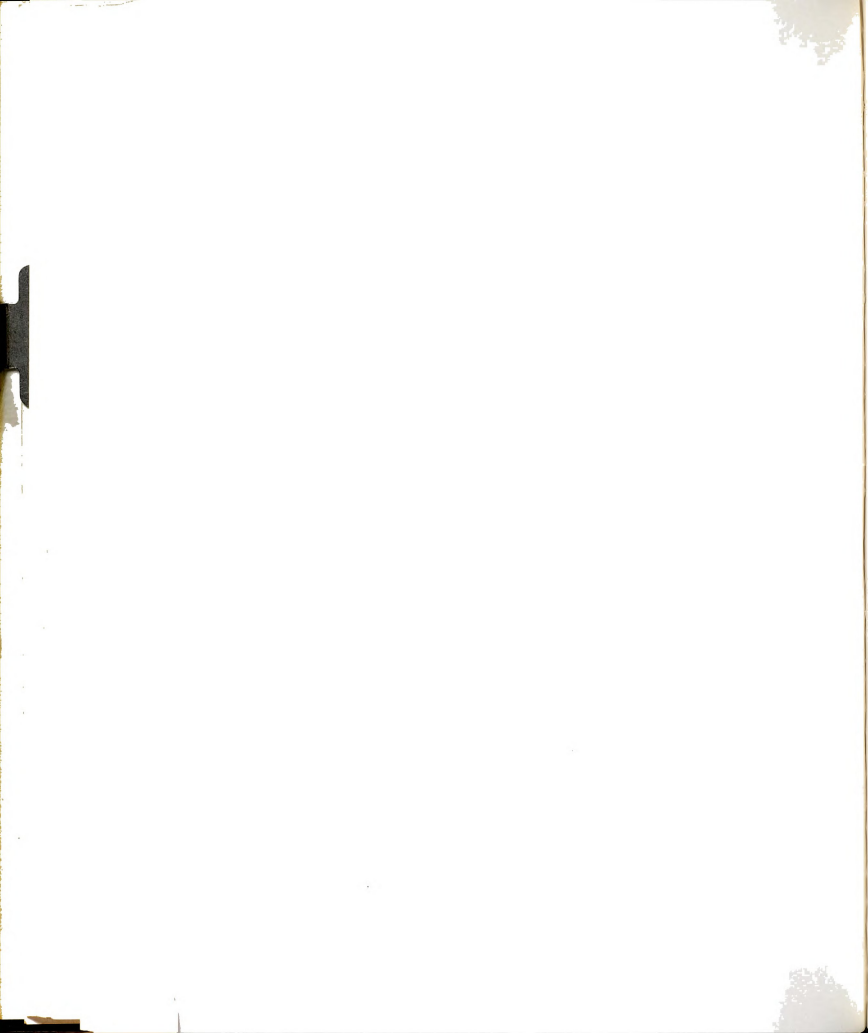
Topic



APPENDIX C

ARTICLE CHECKLIST





## APPENDIX C

### Research Articles

Journal Name: \_\_\_\_\_

Volume \_\_\_\_\_

Issue \_\_\_\_\_

Date \_\_\_\_\_

Article No. \_\_\_\_\_

Page No. \_\_\_\_\_

#### 1. Problem Definition

Was the problem of concern clearly indicated?

Was the hypothesis or question of interest logically constructed from some theoretical or practical basis?

Was a review of the literature present supporting a need for the study?

Was the procedure used to attack the problem clearly and completely described?

#### 2. Sample Selection

Was the population of interest adequately described?

Was the sample selection method adequate?

Were possible sampling biases pointed out?

If a non-random sample, was it adequately described?

#### 3. Appropriateness of Analysis

Was the data obtained appropriate for the objectives?

Were appropriate statistical techniques used to analyze the data?



Were the results of the analysis clearly described?

If a survey, was the response rate reported?

If a survey, was an attempt made to analyze non-response?

If a project, was formative evaluation included?

If a project, was comparison data obtained?

4. Control of Error

Were probable sources of error or bias identified?

Were these sources of error or bias controlled as efficiently as feasible?

Was an adequate control group used when appropriate?

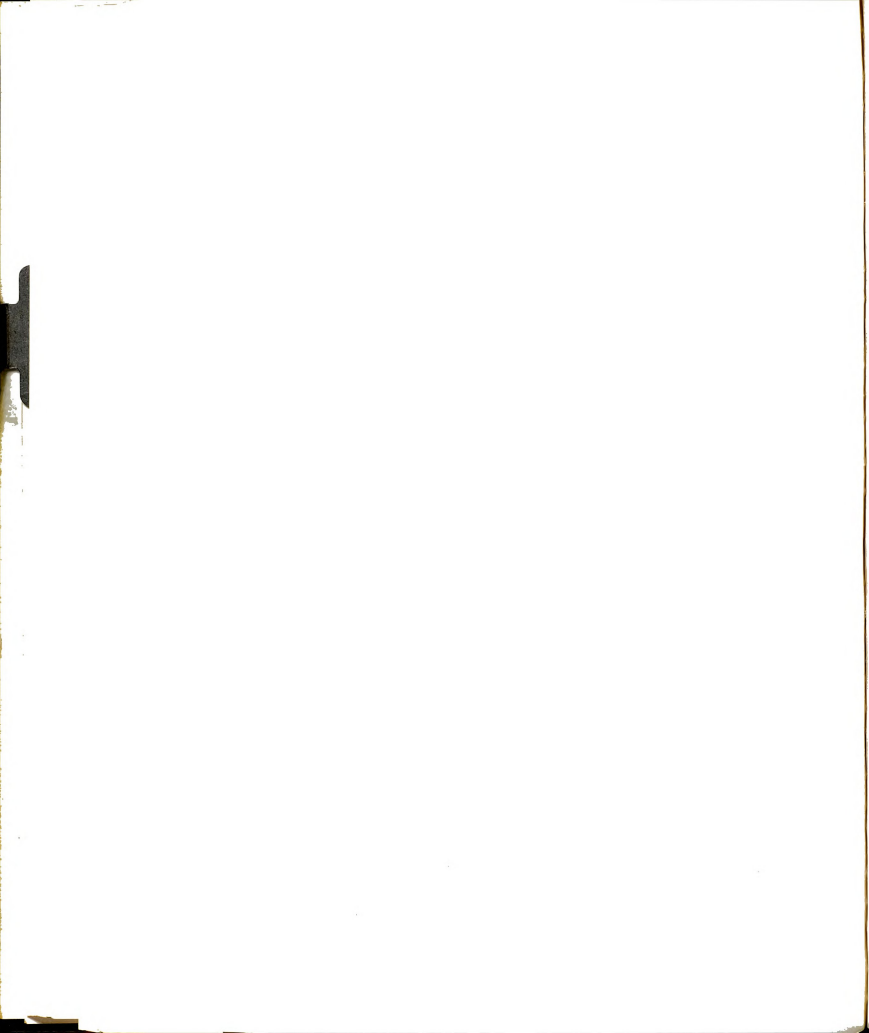
Was lost data accounted for?

5. Appropriateness of Conclusions

Were the conclusions presented clearly?

Were the conclusions supported by the data?

Did the researcher refrain from overgeneralization of his findings?



APPENDIX D

LETTERS



MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

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COLLEGE OF EDUCATION • ERICKSON HALL

June 25, 1973

Dear Editor:

A growing concern among professionals in education has involved the increasing awareness of communication problems within the field between the researcher and the practitioner. As a result of this concern, a carefully designed study is being carried out to investigate the characteristics of current professional journals in education and the relationships between the characteristics and the intended readers of these journals.

As the editor of one of the prominent professional journals in education, your help is being requested in the identification of the intended readers and the publication policies of this journal. Your responses will be held in strict confidence. Identification is being made only to place your responses with other information obtained from your journal.

Please take the few minutes necessary to complete the enclosed questionnaire and return it by July 11. As your responses will be combined with other information obtained directly from your journal, a broad background will be obtained in order to define existing relationships. As the study cannot proceed until your responses are received, your immediate attention will be greatly appreciated. A self-addressed, stamped envelope has been enclosed for your convenience.

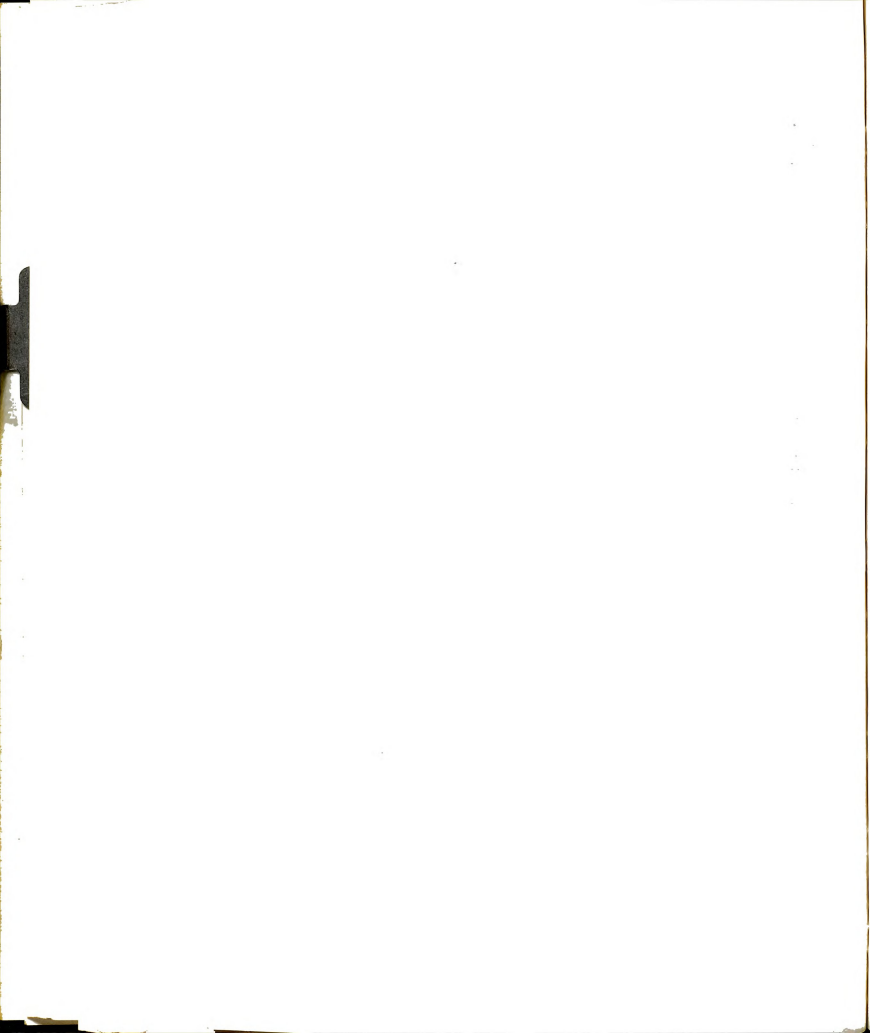
If you would like a copy of the findings of this study, please include your name and the address to which you would like the materials sent.

Thank you for your cooperation and promptness in returning this information.

Respectfully yours,

Paula R. Knepper  
Project Director  
464 Erickson Hall





## MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

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COLLEGE OF EDUCATION • ERICKSON HALL

July 16, 1973

Dear Editor:

About June 27, you should have received a letter and questionnaire concerning the publication policies and intended readership for your journal. We have not yet received your reply. Perhaps your response is in the mail and we will soon receive it. Another copy of the questionnaire is enclosed for your convenience in responding, if you have not already done so.

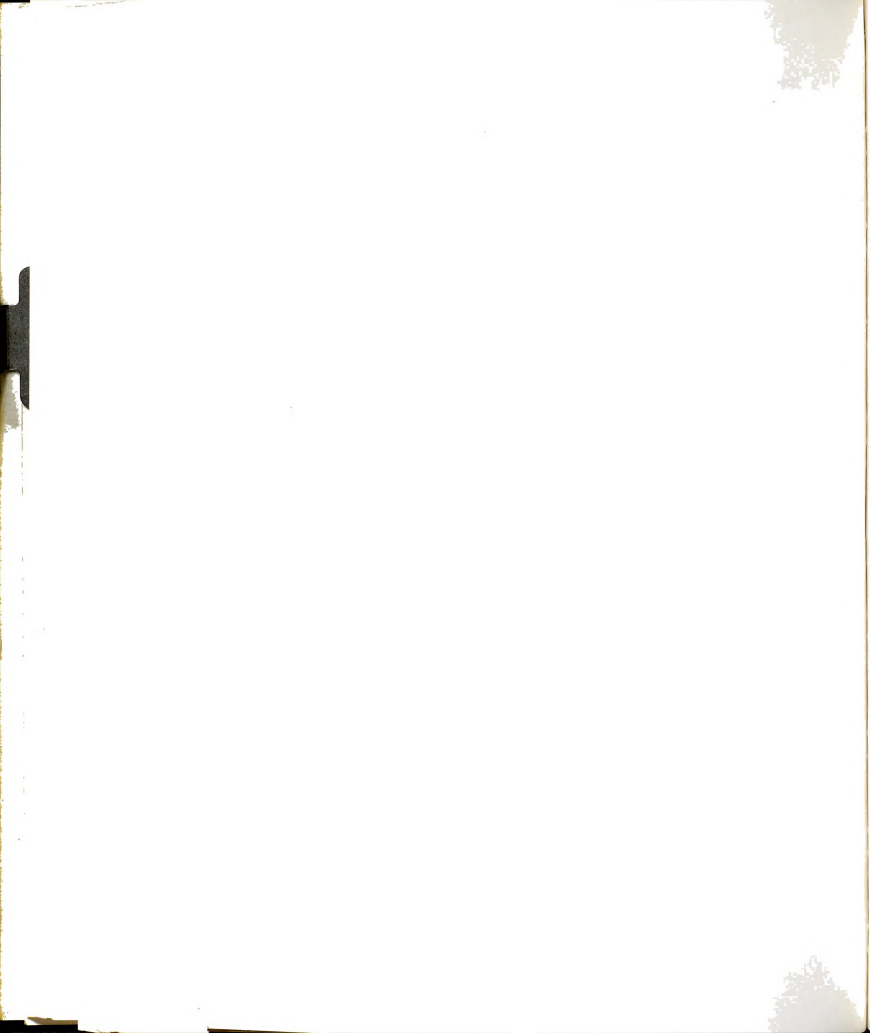
In order to determine the characteristics of professional journals in education and their relationship to the types of intended readers, it is imperative that those journals selected for inclusion respond, so that the results will be truly representative of this important group of journals. Because your responses will be analyzed in conjunction with information taken directly from your journal, completion of the study will be delayed until your response is received.

Your return of the questionnaire prior to July 31 would be greatly appreciated as we plan to begin the analysis early in August. Therefore, please complete the enclosed questionnaire and return it in the stamped, self-addressed envelope that is enclosed with this letter.

Thank you for your cooperation in returning this information.

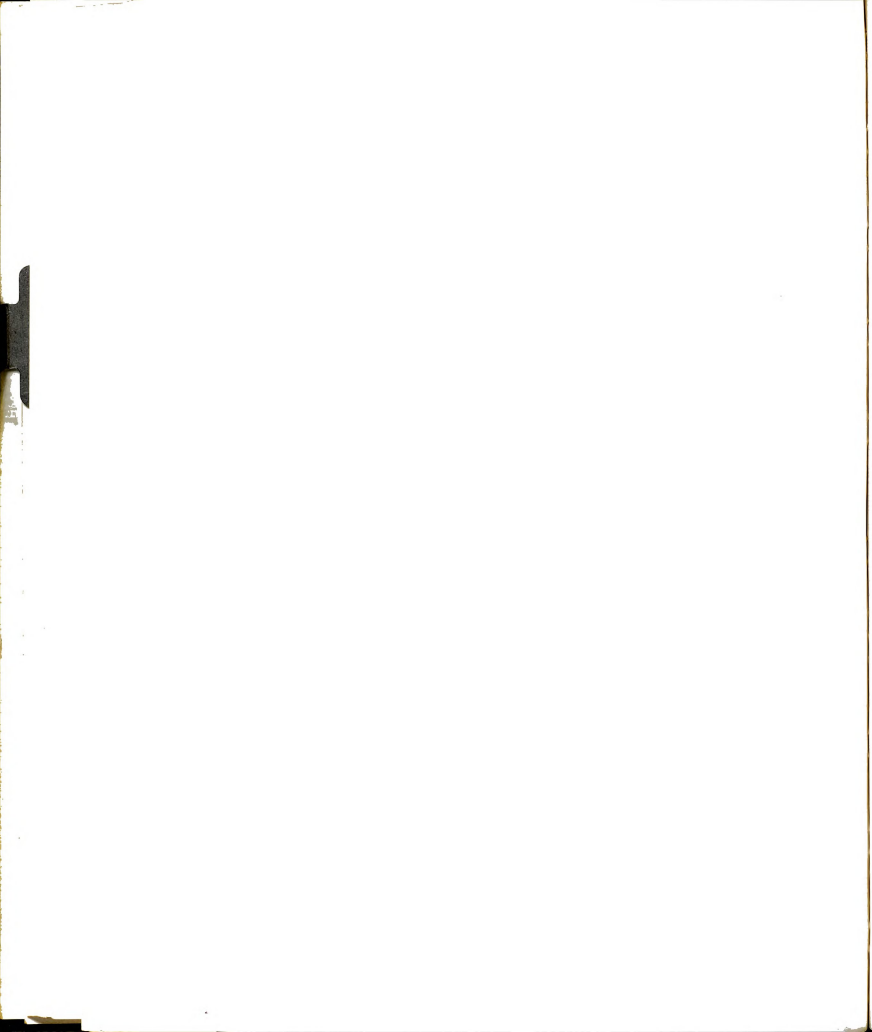
Respectfully yours,

Paula R. Knepper  
Project Director  
464 Erickson Hall



APPENDIX E

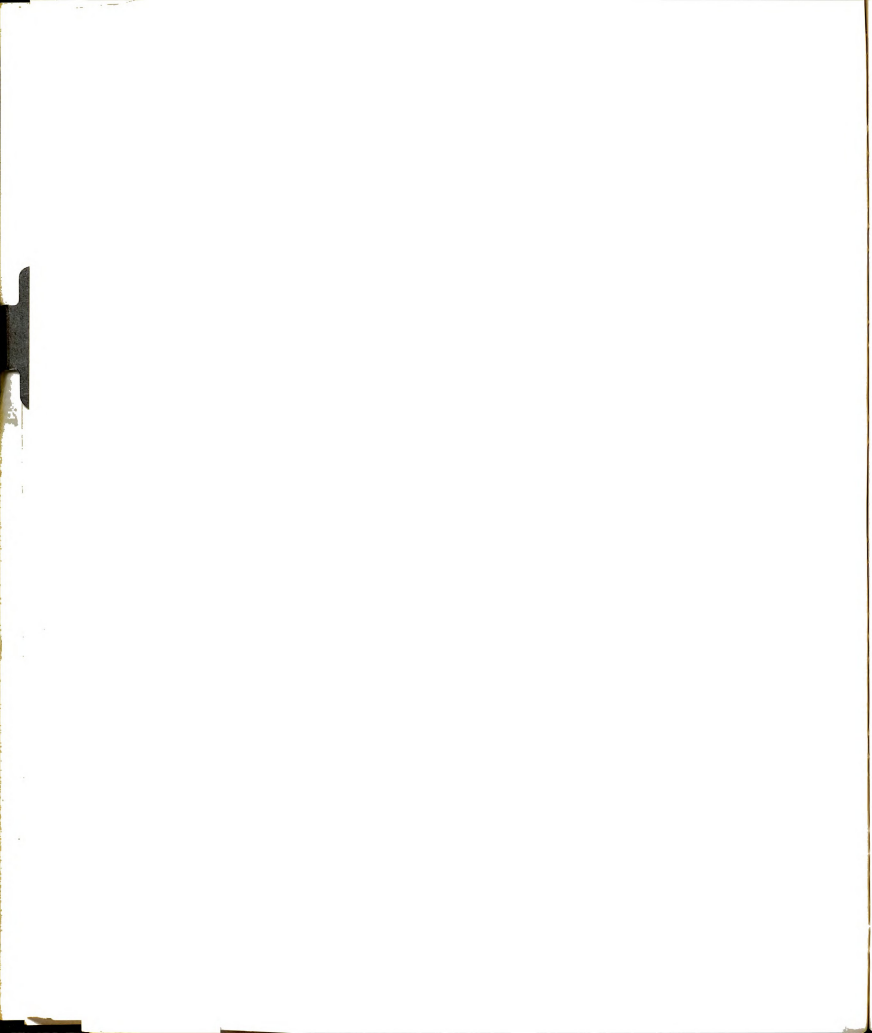
JOURNALS SAMPLED



## APPENDIX E

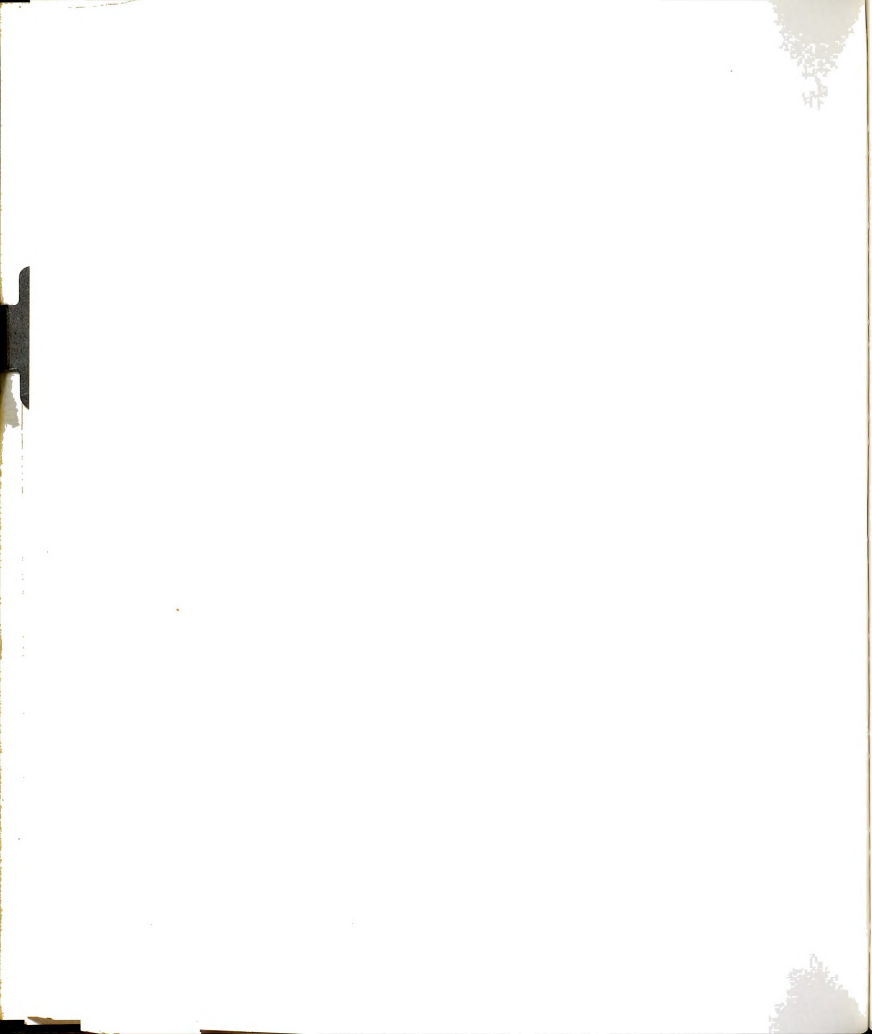
### JOURNALS SAMPLED

American Vocational Journal  
AV Communication Review  
Clearinghouse  
Child Development  
College and University Business  
College Composition and Communication  
Compact  
Comparative Education Review  
Counselor Education and Supervision  
Educational Forum  
English Journal  
Grade Teacher  
Harvard Educational Review  
History of Education Quarterly  
Journal of Aesthetic Education  
Journal of Business Education  
Journal of Counseling Psychology  
Journal of Creative Behavior  
Journal of Educational Psychology  
Journal of Health, Physical Education, and Recreation  
Journal of Higher Education  
Journal of Industrial Teacher Education  
Journal of the National Association of Women Deans and  
Counselors  
Junior College Journal  
Merrill-Palmer Quarterly  
Modern Language Journal  
National Association of Secondary School Principals Bulletin  
Peabody Journal of Education  
Phi Delta Kappan  
Reading Horizons  
School Counselor  
School Science and Mathematics  
Science and Children  
Science Teacher  
Sociology of Education  
Teachers College Record  
Theory into Practice



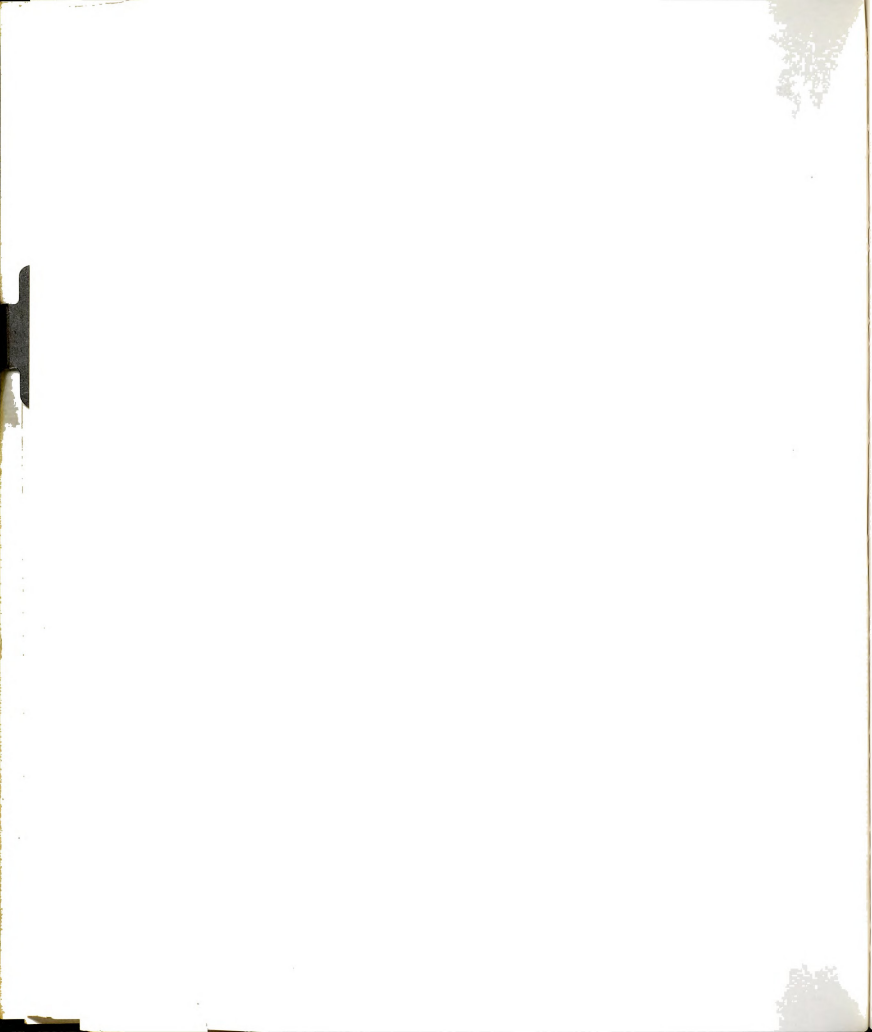
# BIBLIOGRAPHY



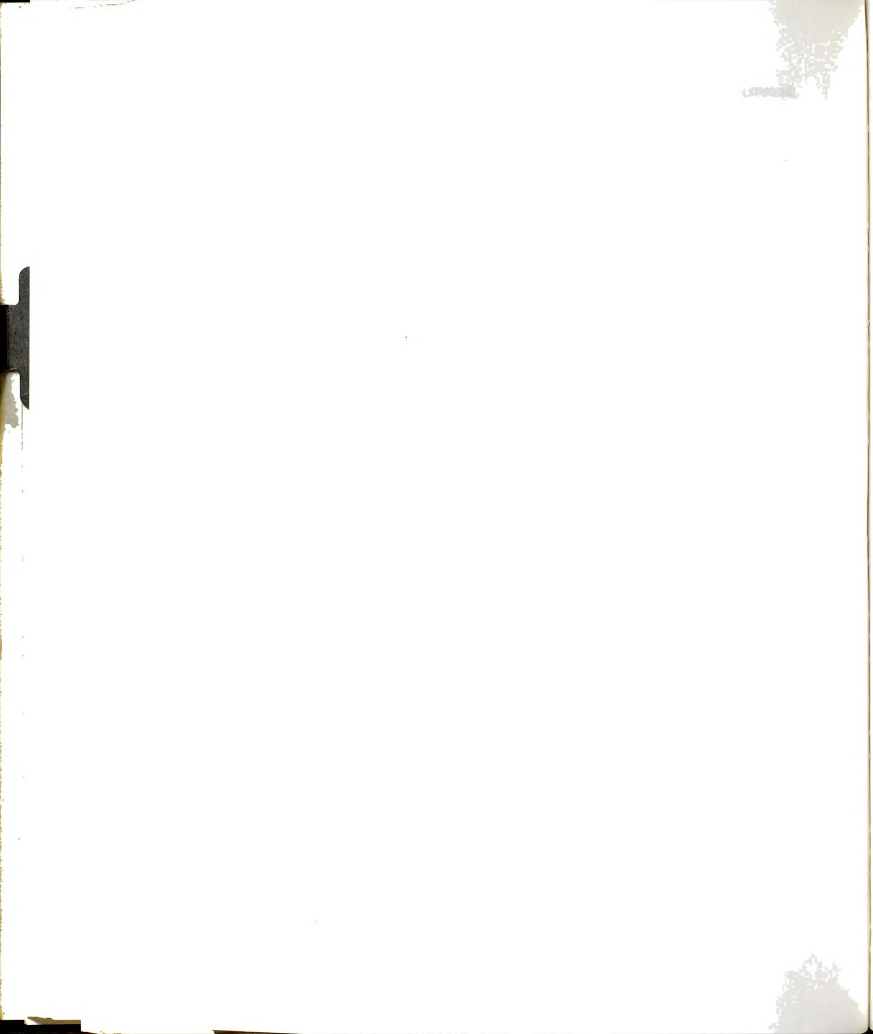


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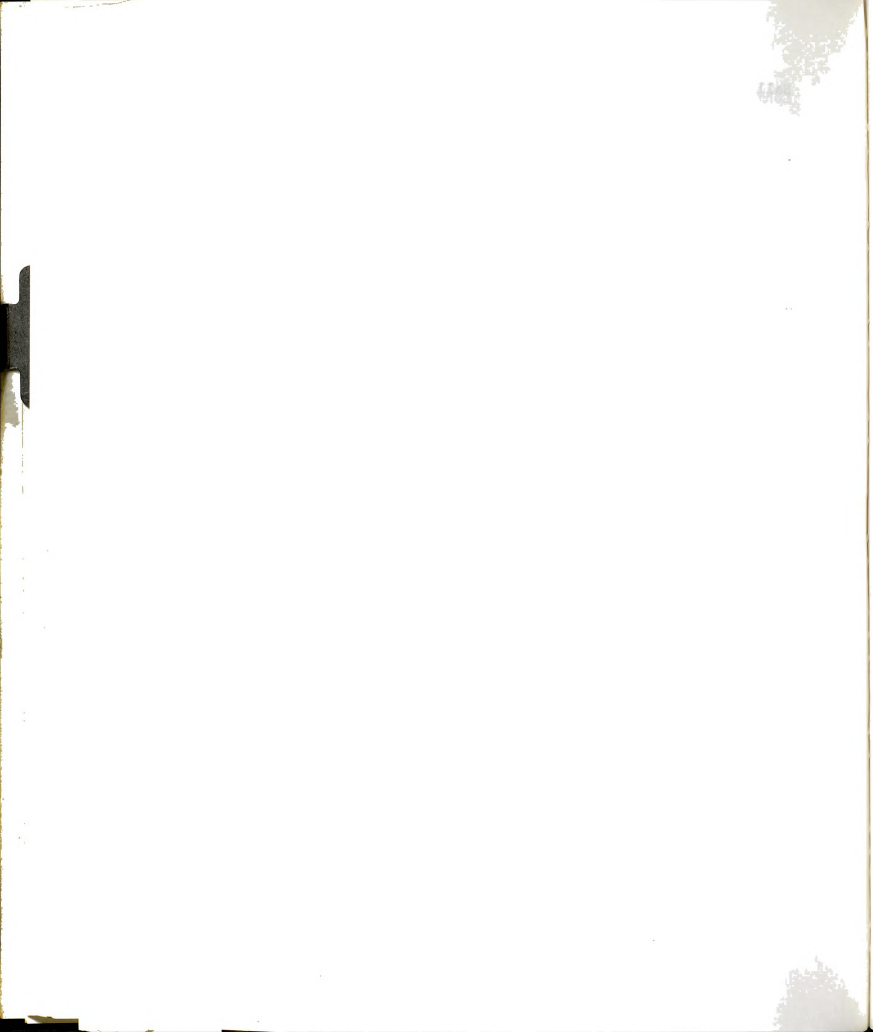


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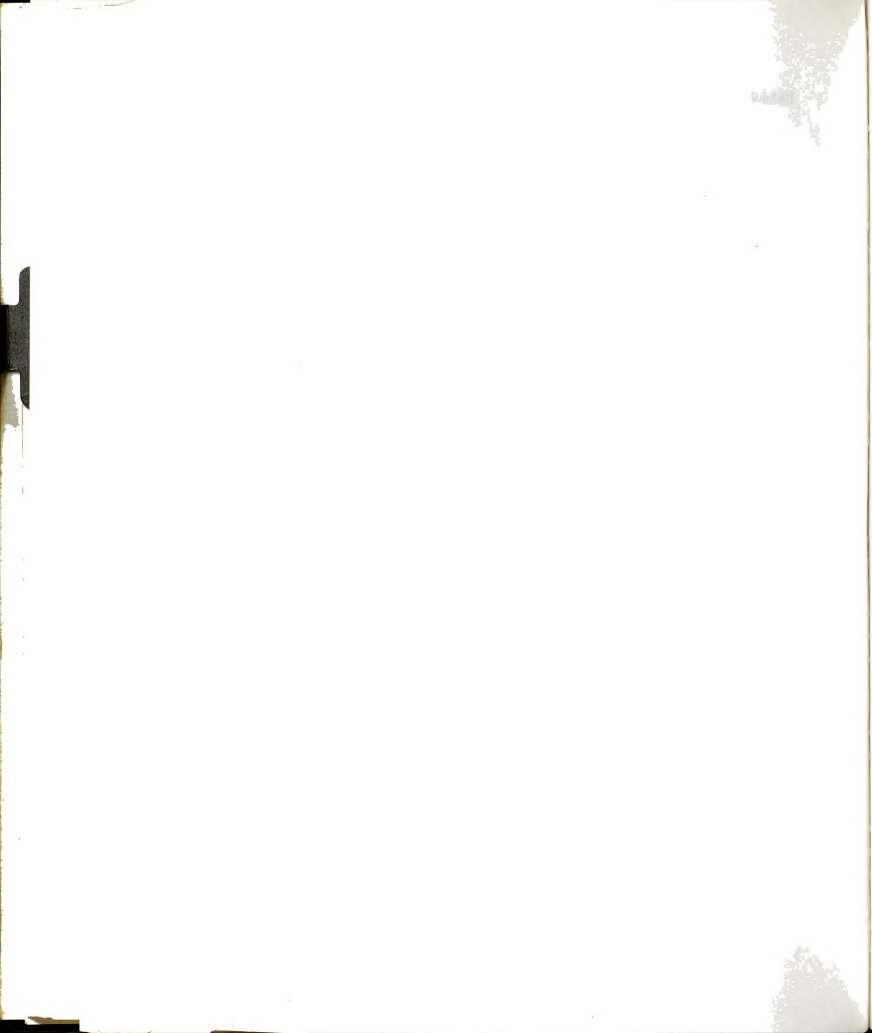


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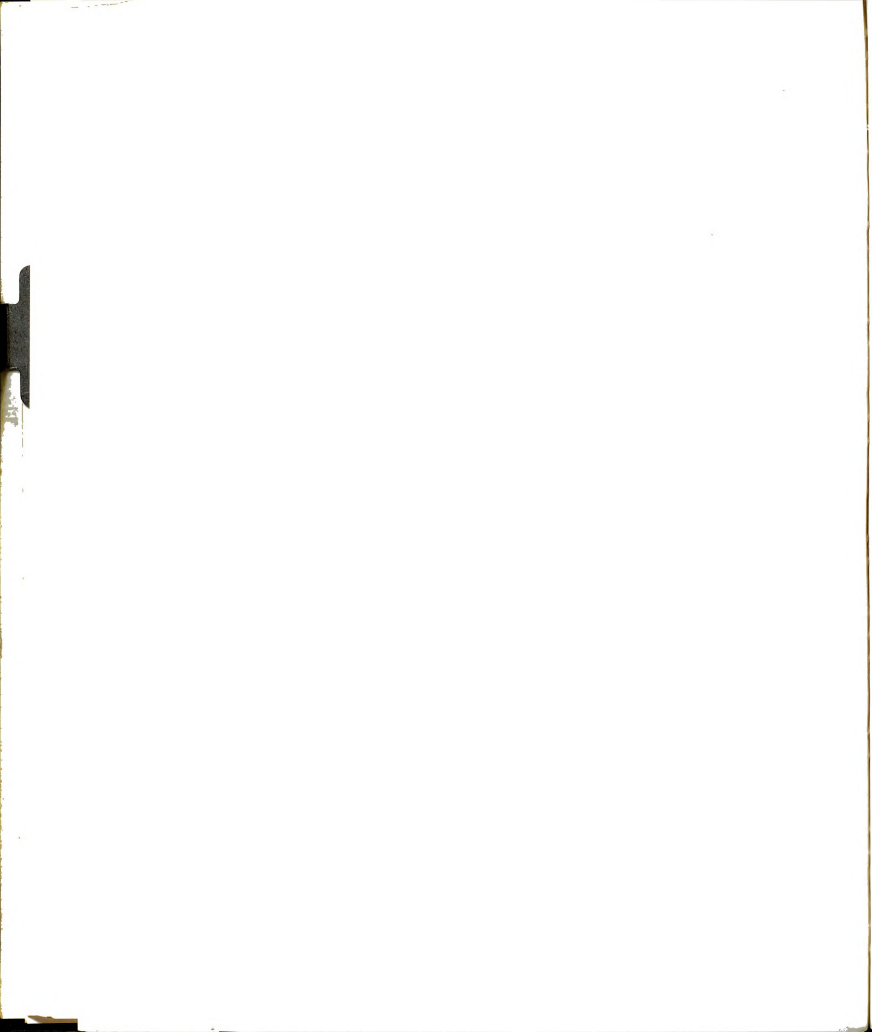




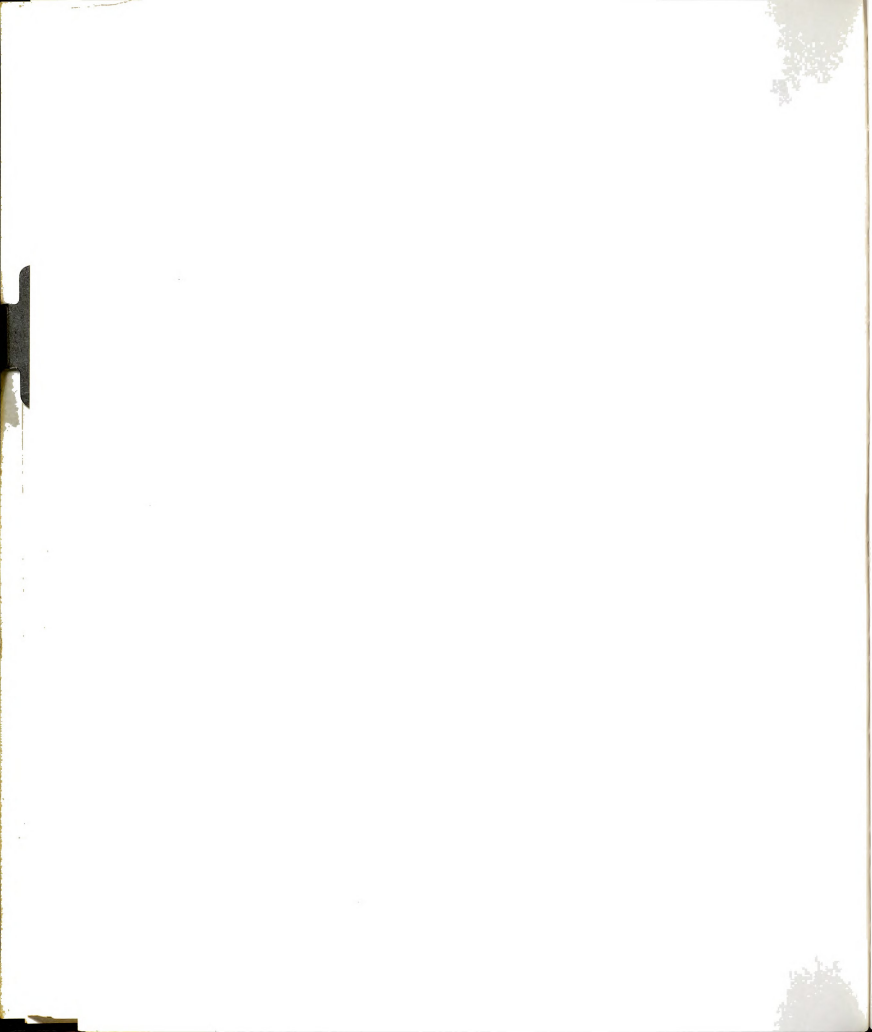
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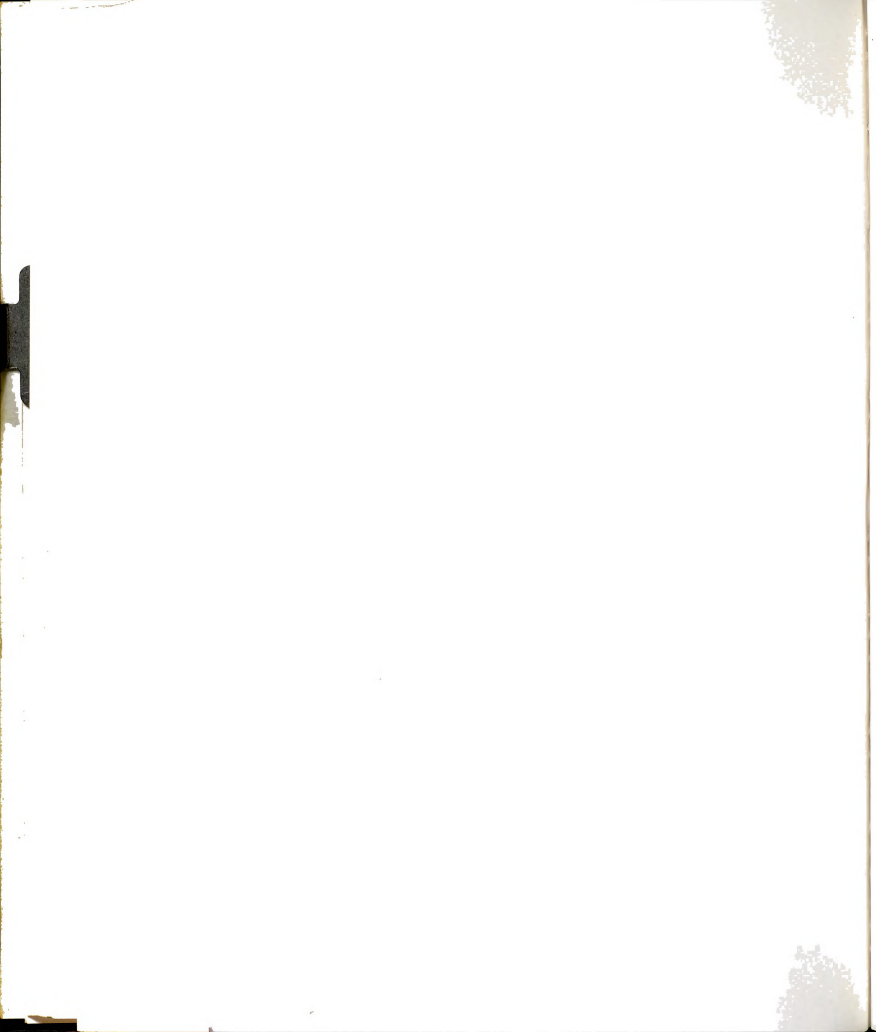


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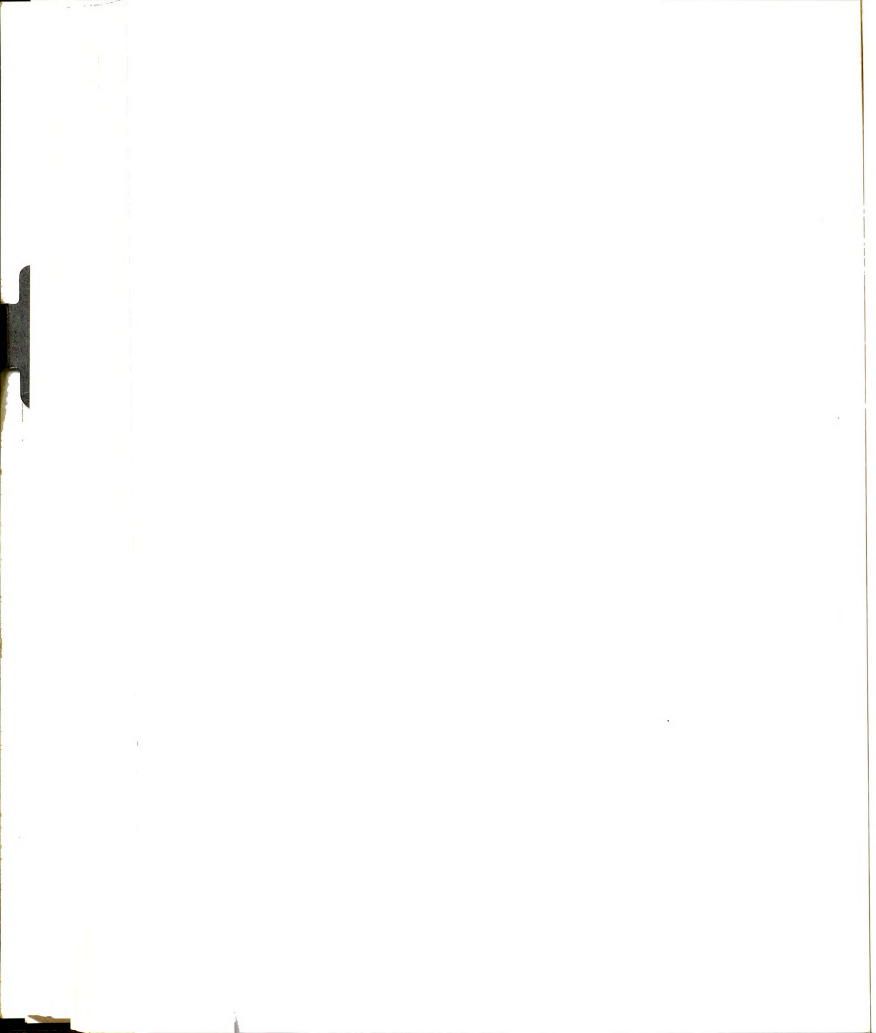
















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