

A STUDY OF THE VARIABLES ASSOCIATED WITH THE
ACCEPTANCE AND REJECTION OF A.E.R.C. ABSTRACTS

by



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ABSTRACT

Adult education is a field of practice which has given rise to an emerging discipline concerned with the creation of its own body of knowledge. The field and the discipline exist in a reciprocal relationship where information is diffused both ways. One method for disseminating information is the Adult Education Research Conference (A.E.R.C.) which promotes research in the discipline and encourages professional collaboration among adult educators.

Information dissemination processes are vital to the discipline and field, and are studied through meta-research. In the present study, abstracts submitted to Steering Committees for the Adult Education Research Conference in 1978, 1979, and 1980 were examined to clarify variables associated with acceptance or rejection. The study was grounded in social science literature focusing on variables associated with the acceptance or rejection of manuscripts submitted for publication.

A 41-item instrument was developed to assess the characteristics of A.E.R.C. abstracts. As A.E.R.C. abstracts are judged "blind" (i.e., authors are unknown to judges), the study examined "internal" abstract variables. These concerned the content (adult education focus and methodological orientation), the research processes employed, and the composition of the abstract.

Procedures aimed at measuring the reliability and validity of the instrument were executed. Expert judges (the 1981 A.E.R.C. Steering Committee) attested to the content validity of the instrument. For test-

retest purposes, 97 abstracts were coded twice and 20 were coded three times to yield a mean item stability-across-time coefficient of $r=.68$. Inter-judge reliability was established by having five judges code nine randomly selected abstracts. A repeated measures analysis of variance showed that the five judges made consistent decisions concerning 37 of the 39 variables. During a second procedure, the coding decisions of the researcher were compared with those of the judges. "Researcher-judges" data were subject to analysis of variance which revealed acceptable levels of agreement on 37 variables; the two "unreliable" results stemmed from the non-conforming decisions of a judge, not the researcher. During pilot procedures, scales and coding criteria were systematically refined. It was concluded that the final form of the instrument was content valid and reliable.

Using this instrument, 329 accepted and rejected A.E.R.C. abstracts were coded on 39 variables. Item means of abstracts accepted and rejected in 1978, 1979, and 1980 differed significantly on nine, six, and nine variables respectively. Variables differentiating between accepted and rejected abstracts were entered into discriminant function equations for 1978, 1979, and 1980. Profiles for accepted abstracts differed by year. In 1978, accepted abstracts were primarily written in an active voice, had a clear and logical argument, were oriented towards use of a particular research methodology, had "clearly identified" instrumentation and implications for the field, and did not focus on agency sponsorship of adult education programmes. In 1979, accepted abstracts were methodologically oriented, focused on programme planning issues but not agencies, had a clearly defined inductive theoretical development, and were not well anchored in the

literature. The 1980 "profile" showed that accepted abstracts focused on foundations of adult education or characteristics of adults and learning, had "clearly identified" data collection procedures, used higher-order (e.g., multivariate) data analysis, and only moderate amounts of dysfunctional jargon. Separate discriminant function equations for each year successfully classified 81 percent of abstracts in 1978, 71 percent in 1979, and 78 percent in 1980. It was significant that, in general, variables associated with acceptance did not have the same, or even a similar, effect in each of the years studied. Judges appeared to weight variables differently by year. This raises questions concerning the abstract selection process and the election of Steering Committee members.

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CHAPTER 1

BACKGROUND TO THE PROBLEM

This is a study of variables associated with the acceptance of papers for "publication" at the Adult Education Research Conference (A.E.R.C.). It falls within the developing tradition of meta-research in adult education. The need for and timeliness of the study stems from the state of adult education research, demands for the development of a "discipline",¹ and the maturing of the A.E.R.C. as an instrument for disseminating adult education research findings.

Part of the need for the present study arises from the fact adult education is both a social science discipline and field of practice which exist in a reciprocal relationship where information is diffused both ways. Issues arising from the nature of the "discipline", the field, and more general processes associated with publication of scientific findings, provide a preface to the present investigation. Most social science disciplines study their research and dissemination processes. Moreover, much social science meta-research straddles disciplinary boundaries.

¹"Discipline" is used here in the lay sense of the term. For present purposes, a discipline is deemed to refer to the presence of an organized body of knowledge with more-or-less agreed upon boundaries, domains of inquiry, and basic concepts. The question of what constitutes a discipline in the scholarly sense is contentious. Kliebard (1965) suggests that it consists of "organized intellectual resources" and "certain attributes which uniquely qualify them for teaching and learning". Some argue that education is not a discipline; thus how could adult education be a discipline? For the purposes of this study, it is not necessary to become embroiled in this controversy. The term as used below, merely distinguishes between the creation of knowledge (about adult education) and the field of practice.

INTRODUCTION

For adult educators, the need to study research and dissemination processes partly stems from the nature of adult education which has a brief history.

Brief History

During the nineteenth century there was little organized education for adults. The first schools for adults, described by Pole (1816), were largely under the auspices of the church; adult education was viewed as the means by which adults could acquire literacy skills to build self-worth and to increase religiosity.

The purpose of adult education has typically changed to reflect the socio-cultural context in which it occurs. After World War I adult education was an instrument for 'social reconstruction' (Ministry of Reconstruction, 1919) exemplified in institutional forms by the English Workers' Educational Association and the Canadian Antigonish Movement (which lead to the development of credit unions and co-operatives in the Maritimes). Adult education was also used to "Americanize" immigrants moving to the United States during the early 1900's and, more recently, to provide remedial education for adults with little schooling, to train labour through vocational and technical education, to supply opportunities to adults for self-fulfillment, and to increase individual effectiveness in social and family relationships, and suchlike.

Examining the "modern era", Cotton (1968) identified three epochs in adult education. The first period (1919-1929), the age of "idealism", saw adult education as an instrument for social reform and reconstruction.

During the latter part of the decade, the American Adult Education Association was established (1926). This event publicly defined adult education as an independent field of practice in the U.S.A. During the age of "realism" (1930-1946) ideals were adjusted to economic and social realities. Literature by professional adult educators demanded more specific definitions and descriptions of the field. The first graduate programme of adult education was established at Columbia University in 1930. The third period (1947-1964), "professionalization", was characterized by the increased professionalization and institutionalization of adult education. The rapid growth of the discipline during these years was evidenced by an expansion of graduate programmes, the establishment of the Commission of Professors of Adult Education, the organization of a National Seminar for Adult Education Research, and an increasing body of literature concerning adult education as a field of practice and professional study.

The Field

Adult education occurs in a diverse array of formal and informal settings. The most conspicuous part of the field is the formally-organized institutions classified by Schroeder (1970). Type I agencies have adult education as their primary or central function (e.g., proprietary schools); Type II agencies serve the educational needs of youth but serve adults as a secondary function (e.g., community colleges); Type III agencies view adult education as a function allied to some non-educational community need (e.g., libraries, museums); Type IV agencies regard adult education as a subordinate function employed to further a special interest (e.g., labour unions, business and industry, churches). Of these types, those which

regard adult education as their primary function form the smallest group. The other three recognize their involvement (though sometimes minimal) in adult education activities, but most of their funding, resources, and energies are devoted towards development of primary functions. Thus, adult education was once described as marginal (Clark, 1958) because it occupied a peripheral position in many institutions.

Numerous individuals plan programmes and design instruction for adult clienteles. Houle (1970) classified leadership in the field as a pyramid consisting of three levels. At the base, the largest group consists of volunteers and lay leaders from community organizations. The second level includes individuals involved as part-time providers of adult education services either as part of regular, or supplemental employment (e.g., night school instructors, librarians). At the apex is the smallest group composed of individuals who specialize in and consider adult education to be their primary professional concern. This group includes, amongst others, directors of adult education in various organizations (e.g., universities, colleges, museums), directors of training in business and industry, educational specialists for voluntary organizations, and professors of adult education.

Adult educators are dispersed through a bewildering variety of settings. Almost any adult institution, organization, or social instrument has some educational function or element. It is impossible to count and difficult to catalogue the numbers and types of adult educators in a modern society like Canada. But casual and systematic observation suggests that it is difficult to disseminate information to these people, some of whom fail to recognize they are part of the field.

Individuals in the field organize and administer programmes or instruct adult learners. Most adult educators are programme planners or instructors. In contrast, persons identified with the "discipline" systematically study theoretical problems associated with adult education or, as is often the case, practical situations experienced by practitioners. Adult education scholars are largely involved with research activities in international organizations and universities. Persons involved with the discipline are part of the small group at the apex of Houle's pyramid for whom the study of adult education has become a primary professional concern.

The Discipline

Adult education is referred to as an emerging discipline. In its efforts to build a unique body of knowledge, it has utilized two procedures for acquiring knowledge (Jensen, 1964). The first involves scrutiny of experiences gained from the field of practice. By studying the field, the adult educator formulates principles or generalizations to explain phenomena and thereby provides guidelines and controls for practitioners. In the second procedure, the adult educator "borrows and reformulates" knowledge from other disciplines. This involves the screening of theory and research from other disciplines and adapting it to adult education. Knowledge from disciplines such as psychology, sociology, history, and administration has been reformulated for adult education purposes.

At some point however, an emerging discipline uses less "borrowed" knowledge and more of its "own". Moreover, it generates new knowledge based on its own previous research. For this process to occur, a discipline must have an established research base. Prior to about 1955, adult educators

did not conduct much research (see UNESCO, 1972). The first major review of adult education was published as a topical issue in the Review of Educational Research (American Educational Research Association, 1950).

In subsequent years, the Adult Education Association of the U.S.A. published inventories or listings of adult education research. In 1959, the publication of An Overview of Adult Education Research (Brunner et al., 1959) marked a milestone for adult education research. Its purpose was to identify "any generalizations on which policy could be based, and which could be offered for the guidance of those preparing to be professional adult education workers on either a full or part-time basis" (p. iv). Recently, a citation study showed that adult education researchers now cite more of their "own" research than that of other disciplines (Boshier & Pickard, 1979).

It is essential that adult education develop a unique body of knowledge, both as a social science discipline and a field of practice. Its importance however is directly related to the extent to which knowledge is disseminated throughout the discipline and field. Knowledge gained from disciplinary research can be vital to the field in several ways. For example, research on teaching techniques can be applied by the practitioner. Research on adult motivation to participate in educational activities can aid the programme planner reach potential participants. Reciprocally, problems from the field can act as stimulants for disciplinary research. For example, the problem of "drop-outs" has been the subject of adult education research; special characteristics of the older adult have stimulated

research designed to improve "teaching" directed at this audience. The field and the discipline exist in a reciprocal relationship; each depends upon and reinforces the other.

Information Dissemination

The tie that binds the discipline and field of practice is the communication network which exists between them. The extent to which information and knowledge is reciprocally communicated between discipline and field determines the growth and development of each. There are a variety of methods by which knowledge is disseminated. Communications systems between scholar and practitioner are both informal and formal. The former is conducted primarily through interpersonal channels; the latter uses more formal channels such as journals, publications, and conferences. For current purposes, dissemination systems include printed matter, conference attendance, and information retrieval systems, thus falling in the formal category.

The printed form remains the most important method for dispersing information. Adult education literature most commonly appears in books, pamphlets, periodicals, and unpublished materials. Verner (1960) in a review of adult education literature, discussed historical, survey, research, and general writings. Some works endure over time, for example, Bryson's Adult Education (1936), Lindeman's The Meaning of Adult Education (1926), the Report of the British Ministry of Reconstruction (1919), Brunner et al.'s (1959) An Overview of Adult Education Research, and Adult Education — Outlines of an Emerging Field of University Study (Jensen et al., 1964). Recent work such as the Faure report Learning to Be (1972) also shows signs of having a lasting impact on the field. But much literature is of a limited value to either the discipline or the field (Verner, 1960).

Along with books, journals and periodicals diffuse literature throughout adult education. Adult Education (USA) focuses on philosophy, theory, and research as does its British counterpart Studies in Adult Education. Some journals are concerned with comparative education as, for example, Convergence; others relate to specific interests in the field, for example, the Canadian Journal of University Continuing Education, Adult Literacy, and Educational Gerontology; while others are devoted specifically to the general practitioner, as, for example, Lifelong Learning — the Adult Years and Adult Education (N.I.A.E.).

Conferences and conventions are the second method of disseminating knowledge. Their popularity is evidenced by the lavish numbers of participants and money spent on these events. The popularity of "conferencing" among practitioners and scholars is partially due to the institutionally dispersed nature of adult education. These events provide the opportunity for institutionally and geographically dispersed adult educators to exchange ideas, news, information and findings. Although time is spent attending papers or symposia sessions, much knowledge is gained through informal or social activities. Major conferences which attract scholars and practitioners include the Adult Education Association Conference (USA) (held in St. Louis, 1980, Anaheim, 1981) and the Adult Education Research Conference (held in Vancouver, 1980; De Kalb, 1981; Lincoln, 1982).

Another method for knowledge dissemination is the information retrieval system which has benefitted from advancing computer technologies. The Educational Resources Information Center (E.R.I.C.), for example, provides easy access to a wide range of significant educational (particularly

unpublished) documents. Other information services include the National Educational Associations' Adult Education Clearinghouse (N.A.E.C.) and the School Research Information System (S.R.I.S.).

As in other fields and disciplines, adult education is experiencing an "information explosion". Practitioners, scholars and students are inundated with books, journals, conference publications, and ephemera. But, does quantity ensure quality? Are there any controls which distinguish the meritorious from the mediocre? For the discipline, are there screens to ensure that scientifically sound research is disseminated while non-sense is inhibited?

These questions have led researchers in various disciplines to study information dissemination networks and quality control systems. Thus, the "gatekeeping" function of editors and the manuscript referee system have evoked scholarly interest. In a study of evaluation patterns in the natural sciences and humanities, Zuckerman and Merton (1971) maintained that referees are "an example of status judges who are charged with evaluating the quality of role-performance in a social system" (p.66). Examples of status-judges include teachers who assess the quality of student work, art critics, supervisors in industry, and journal and "conference" editors. Zuckerman and Merton studied rejection rates for "scientific" and "humanistic" journals, status differences of scholars submitting manuscripts, questions concerning anonymity (of manuscript authors) in the judging process, the duration of the referee process, and the influence of referees, editors, and authors on the review process. They concluded that despite

its imperfections,

the system of monitoring scientific work before it enters into the archives of science means that much of the time scientists can build upon the work of others with a degree of warranted confidence. It is in this sense that the structure of authority in science, in which the referee system occupies a central place, provides an institutional basis for the comparative reliability and cumulation of knowledge (1971, p. 99).

Other studies, described below, have examined variables which determine acceptance or rejection of manuscripts (e.g., Chase, 1970; Gottfredson, 1978), the review process (e.g., Rodman & Mancini, 1977), and the degree of interjudge agreement on manuscript acceptance (e.g., Scott, 1974).

Studies like these are becoming more prominent in social science literature. Apparently, many authors believe that it is important to monitor research processes. Thus, meta-research, the systematic study of research, is a type of monitoring employed by disciplines as they mature. At first, disciplines appear to struggle to create boundaries and basic concepts. Secondly, they study relationships and processes within boundaries. Eventually, there is a body of knowledge capable of analysis by meta-researchers. Meta-research has undoubtedly been boosted by developments in information processing and systems theory but still appears to reflect the maturing of a discipline.

META-RESEARCH

Through meta-research, adult educators can critically examine research activities and outcomes to facilitate the understanding, prediction and control of scientific activities that build theory, and, in the long term, influence the field of practice (Kerlinger, 1977). As an emerging discipline, adult education has given rise to several types of meta-research.

Sork (1980), reviewed more than 100 examples of meta-research in adult education and identified six types: Type I — Inventories of Research; Type II — General Reviews of Research; Type III — Critical Reviews of Specific Topics; Type IV — Research Agendas or Taxonomies of Needed Research; Type V — Focused Critiques of Research Methodology; and Type VI — Frameworks or Paradigms for Understanding and Improving Research.

Type I — Inventories of Research contain registers of research whose primary purpose is to make known who is doing what work. There are several different forms of research inventories. These include annual "Research Reviews" sponsored by the A.E.A. and published in Adult Education (e.g., Kaplan, 1955-1959). From 1967-73, the E.R.I.C. Clearinghouse on Adult Education compiled and published annual research registers. Currently, the E.R.I.C. Clearinghouse on Adult, Career and Vocational Education publishes periodic inventories. Other organizations and institutions have developed similar studies including inventories of thesis and dissertation research, non-degree research in Canada, and studies completed at specific universities.

Type II — General Reviews of Research summarize complete work, form generalizations, and judge whether or not progress has been made. Brunner's (1959) Overview of Adult Education Research remains as the most outstanding example. Although subsequent reviews for assessing the general direction of research have been published, none have the comprehensiveness of Brunner's work.

Type III — Critical Reviews on Specific Topics involve state-of-the-art reviews which focus on specific topics and emphasize findings and their generalizations. Sork identifies this as a neglected form of meta-research

in adult education. The topic of adult development and learning has received the greatest interest. Recent reviews concern needs (Monette, 1977) and adult learning projects (Tough, 1978).

Type IV — Research Agendas or Taxonomies of Needed Research are developed specifically to stimulate research activities in the field. Brunner (1960) published an early list of research needs followed by Houle (1962), Kreitlow (1968, 1975), Knox (1977), and others. The effect of such taxonomies on adult education research is questionable. However, these agendas do identify research questions which adult educators consider to be within their domain of study.

Type V — Focused Critiques of Research Methodology examine methodologies used in adult education research. This type of meta-research received impetus in the last decade as adult educators became more aware of standard social science research methods. Thus, there have been reviews concerning the advantages and disadvantages of participatory research methodologies (Hall, 1975; Lindsey, 1976), the use of methodologies associated with grounded theory (Mezirow, 1971), and the use of factor analysis in adult motivation studies (Boshier, 1976).

Type VI — Frameworks or Paradigms for Understanding and Improving Research consider attributes of the research process and the publishing behaviour of researchers. This area of meta-research increased in the 1970's with studies focusing on content analysis (Dickinson & Rusnell, 1971), citation patterns (Boshier & Pickard, 1979), and publication activities of professors (Long, 1977). Other studies centre on fundamental assumptions of, or suggest improvements for, research in adult education.

Sork concluded that meta-research in adult education "has made an important contribution to the process of separating knowledge from ideas" (p. 24) and is an essential element in its development as a discipline. Most of Sork's references were to Type I and II research. Although Type VI research has increased in the past decade, the number of reported studies remains small. Only five studies concerned publication and dissemination processes. Most concern Adult Education, the American journal of research and theory. Dickinson and Rusnell (1971) conducted a content analysis; Long and Agyekum (1974) focused on the kind, content, and authorship of published articles; Boshier and Pickard (1979) analyzed citation patterns of published articles; and Lee (1979) studied the contribution of graduate students to the journal. A further study looked at the publication activity (in a number of journals) of selected members of the Commission of Professors (Long, 1977). Research related to the acceptance/rejection of manuscripts for these journals is yet to be conducted. Furthermore, there is no or little reference to studies concerning the nature of research "published" in major conferences or forums.

This meta-research orientation is a fledgling area of study in adult education. There have been a few content analyses of journals, only one known citation study and a small amount of research on dissemination systems. There does not appear to have been any study of variables that influence the acceptance/rejection of scientific work submitted for "publication". In adult education, this probably stems from its newness as a field of study, the existence of few "major" journals, and the ephemeral and dispersed nature of the literature (Verner, 1960).

There has also been a complete absence of work concerning the Adult Education Research Conference, a vehicle for the dissemination of research findings. Moreover, no writer in adult education has studied variables associated with the acceptance or rejection of manuscripts submitted for publication at conferences (or in journals). The purpose of the present project was to study variables associated with the acceptance or rejection of papers submitted for "publication" at the Adult Education Research Conference. The present study thus falls within Type VI of Sork's meta-research typology.

THE PROBLEM

The A.E.R.C. is an instrument for the dissemination of knowledge to North American and "foreign" adult educators. Despite this primary responsibility, no guidelines have been set to influence the nature of the knowledge disseminated. As well, no studies have evaluated the processes or outcomes of this conference. The purpose of the present thesis was directed toward partially remedying this deficit.

The specific aims of the study were:

- (i) to examine the characteristics of abstracts submitted for A.E.R.C.'s held in 1978, 1979, and 1980; and
- (ii) to identify variables associated with acceptance/rejection of abstracts submitted to the A.E.R.C. in 1978, 1979, and 1980.

Before describing the nature of the A.E.R.C., literature concerning the dissemination of scientific information in related social science disciplines is briefly presented. This review was conducted with the expectation that variables which predict acceptance/rejection of submitted manuscripts might be predictive of acceptance/rejection of abstracts submitted to A.E.R.C.

CHAPTER 2

LITERATURE REVIEW

The paucity of literature in adult education concerning information dissemination and variables associated with the acceptance/rejection of manuscripts led to the examination of studies in related social science disciplines. Researchers in psychology, sociology, economics, political science, and education have systematically studied information dissemination processes. As well, the growing number of new journals and the increasing volume of manuscripts submitted for publication have led researchers and editors to examine editorial policies and review processes. Researchers are asking questions about editorial gatekeeping, publication lagtime, interjudge agreement, and criteria for publication. Of particular interest to the present investigation were those studies which focused on variables associated with the acceptance or rejection of manuscripts.

In view of the diversity of the dissemination literature, the review was organized in terms of the following three questions:

1. What is the primary concern of the article (e.g., criteria for manuscript acceptance, interjudge agreement)?
2. In determining acceptance or rejection of manuscripts, what type of variables does the study employ?
3. What type of analysis (e.g., multivariate, bivariate, univariate) is used in this study?

After reviewing a modest body of literature it was apparent that variables influencing the acceptance or rejection of manuscripts could be classified into two major types: those "external" and those "internal" to the manuscript. "External" variables are those embodied in the judges, contributors, or judging process; "internal" variables are those incorporated in the manuscript.

External Variables

Several studies examined the influence of external variables on the likelihood of publication. Typical studies include one by Crane (1967) who attempted to assess the influence of the editor's "awareness of scientists locations in the academic stratification system" (p. 195). Variables studied included: anonymity vs. non-anonymity (i.e., the contributor is known/unknown to the reviewers) and academic characteristics of editor and contributor (i.e., academic and institutional affiliation, professional age, doctoral origin). Crane concluded that academic characteristics of editors and contributors affect the evaluation of scientific articles; anonymity does not change this result.

Abramowitz et al. (1975) focused on the reviewer's political orientation as an independent variable. They hypothesized that manuscript referees would "bias their inferences about the quality of a politically relevant empirical paper in a direction congruent with their own political convictions" (p. 189). The authors concluded that referee judgements were valid when concerned with specific aspects of the manuscript's quality (i.e., writing, methodology). However, reviewer decisions to recommend the manuscript's publication are subject to political bias.

Rather than looking at editor/contributor characteristics, Rodman and Mancini (1977) examined editorial procedures and, in particular, "equity in the process and procedures that lead to an editorial decision" (p. 369). The authors studied "sponsored submission" (i.e., someone of special status submits the manuscript for the author); "inside track submission" (i.e., contributor's who have a special relationship to the editor); and "back region communication" (i.e., communication hidden from contributors but built into the editorial procedure). Rodman and Mancini used descriptive statistics and concluded that these "neglected areas" raise questions about professional conflict of interest and editorial objectivity.

Internal Variables

A second group of studies focused on "internal" manuscript variables. Frantz (1968) asked editorial board members of educational psychology, personnel, and counselling journals to rank criteria for manuscript evaluation. Criteria included: contribution to knowledge, design of the study, objectivity in reporting results, topic selection, writing style and readability, and other internal variables. Two others that he considered, reputation of the author and institutional affiliation, were external variables. Hartung and Latta (1969) asked journal editors to consider three questions raised by prospective authors. The third concerned factors influencing an editor's decision to accept manuscripts. The factors, in order of frequency, were: quality of the writing, topic and content, appeal to readers, timeliness, research vs. opinion, author a member of the association publishing the journal, illustrations, and length. With the exception of an author's membership in the association, all these variables were internal to the manuscript.

Another study concerned with criteria for manuscript acceptance involved a survey of editor's opinions of requirements for publication in psychology journals. Wolff (1970) listed fifteen variables including: contribution to knowledge, research design, objectivity in reporting results, statistical analyses, writing style and readability, and theoretical model. Most of the variables identified were internal to the article; external variables were author's status and reputation and institutional affiliation.

Chase (1970), in a study of "the operations of the evaluation and recognition systems of science" (p. 262), listed ten criteria for scientific publication. Selected professors from the natural and social sciences, were asked to judge the "essentiality" of the criteria. In order of "importance", variables were ranked as follows: logical rigor, replicability of research techniques, clarity and conciseness of writing style, originality, mathematical precision, coverage of significant existing literature, compatibility with generally accepted disciplinary ethics, theoretical significance, pertinence to current disciplinary research, and applicability to practical/applied problems in the field. Chase concluded that mathematical and technical criteria were stressed in the natural sciences while logico-theoretical standards were emphasized in the social sciences.

Similar variables were identified in two studies concerning publication in economics journals (Coe & Weinstock, 1967; Weber, 1972). Variables identified as the chief impediments to publication were: no significant addition to the current body of knowledge, superficiality, inadequate research, and poorly written. McCartney (1973), in an editorial concerning the review process in sociology, identified patterns within reviewer's comments.

Reviewer's criticisms and comments focused on several major problem areas: conceptual and theoretical (e.g., clarity and precision of concepts); methodological and design (e.g., problems in construction and use of measures and scales); analytic and interpretive (e.g., incomplete analysis); and writing (e.g., lack of attention to style).

Focusing on interjudge reliability, Scott (1974) attached an appraisal sheet to each manuscript submitted for review to the Journal of Personality and Social Psychology. Manuscripts were sent to two reviewers. Of the seven attributes listed on the appraisal sheet, interreferee agreement (intraclass correlation coefficient) was significant for six: importance of the present contribution, attention to relevant literature, design and analysis, style and organization, succinctness, and recommendation (accept/reject).

Silverman and Collins (1975) examined publishing relationships in higher education. Their study focused on authors' rationales for publication, criteria used in selecting journals for proposed submission, desired standards of author and editors in the review process, and specific criteria for manuscript selection. Participants in the sample rated the criteria "which should ideally characterize the stylistic and compositional elements of manuscripts" (p. 375). The analysis suggested that process and content variables are critical to review decisions. Process included organizational variables (e.g., clarity and conciseness of writing, appropriate use of statistics, validity of logic used, spirited style), and norms of scholarship (e.g., theoretical grounding, review of literature, replicability). Content included variables such as interest to readers, timeliness of topic, applicability to practice and applied problems in the field, and contribution to basic knowledge.

The studies reviewed thus far were largely concerned with criteria for publication. All employed simple uni- or bivariate statistics and, as far as can be established, did not use any particular methodological or theoretical stance to guide data-collection and analysis. A recent study, more sophisticated than those reviewed above, was conducted by Gottfredson (1978). Gottfredson advanced this type of information dissemination literature in a series of studies designed to investigate three major aspects of the peer-evaluation system in psychology: "the reliability of peer judgements of article quality"; "the criteria upon which assessments of article quality are likely to be made"; and "relationships between peer judgements of article quality and the number of citations made to articles following publication" (p. 920). A principal components analysis yielded nine interpretable groups of attributes of journal articles. The first consisted of practices to avoid. "The problem has not been considered carefully enough", "the experiment conducted does not address the stated question", or "the author uses lofty scientific jargon when plain English will do" loaded on this component. Components II and III addressed "do's": relating to scientific or substantive matters (e.g., "it attempts to unify the field", "it deals with an important topic"), and relating to style and composition (e.g., "it is well written", "it avoids unrealistic speculation"). Other components focused on the importance of originality and heurism; triviality; scientific advancement; "data-grinders" (e.g., "it contains more data but no new insights"); "ho-hum" research (e.g., the author uses precisely the same procedures as everyone else); and narrowness of research concerns. The nine components, which accounted for 49.6 percent of the variance, led Gottfredson to conclude "... that

prescriptive norms for scientific evaluation exist and transcend subdisciplinary bounds" (p. 924). In the second study of the series, the author used these criteria "to achieve reliability of peer evaluations of psychological work" (p. 924). Judges were asked to evaluate selected articles using an evaluation scale based on the criterion emerging from the first study. The findings showed only moderate agreement across the judges.

Summary

The nature of the literature reviewed is summarized in Table 1 in terms of study focus, type of analysis, and discipline. All but one of the studies shown in Table 1 focused on manuscripts submitted to journals. Only one study (McReynolds, 1971) concerned selection of papers for a conference; it focused on the interjudge reliability of committee members involved in selecting papers for a meeting of the American Psychological Association.

Variables identified with selection processes (i.e., acceptance or rejection) are external or internal to the manuscript. External variables are those inherent in the editor, reviewer, and contributor (e.g., academic and institutional affiliation, membership in professional organizations) or the reviewing process (e.g., anonymity vs. non-anonymity, sponsored submissions). Internal variables are those embodied in the manuscript, usually related to writing and compositional processes and content criteria concerned with, for example, theoretical/conceptual basis, methodological and empirical basis, and originality and applicability to the field. These variables have been identified in several studies from social science disciplines, either as a direct (e.g., manuscript criteria) or related (e.g., interjudge reliability) focus of the study.

Table 1
 Characteristics of Literature Relevant to A.E.R.C. Abstract Acceptance

Variable	Author	Focus/Foci of the Study	Type of Analysis	Discipline
External	Crane (1979)	Acceptance/Rejection of Manuscripts	Univariate	Sociology & Economics
	Abramowitz, et al (1975)	Acceptance/Rejection of Manuscripts	Bivariate	Psychology
	Rodman & Mancini (1977)	Editorial Procedures	Univariate	Higher Education
External/Internal	Frantz (1968)	Criteria for Manuscript Selection	Univariate	Education Psychology & Counselling
	Hartung & Latta (1969)	Criteria for Manuscript Selection	Univariate	Education
	Wolff (1970)	Criteria for Manuscript Selection	Univariate/Bivariate	Psychology
Internal	Coe & Weinstock (1967)	Manuscript Review Process	Univariate	Economics
	Chase (1970)	Criteria for Manuscript Selection	Univariate	Natural & Social Sciences
	McReynolds (1971)	Interjudge Reliability	Bivariate	Psychology
	Weber (1972)	Manuscript Review Process	Univariate	Economics
	McCartney (1973)	Reviewer Comments and Criticisms		Sociology
	Scott (1974)	Interjudge Reliability	Bivariate	Psychology
	Silverman & Collins (1975)	Rationales for Publication Criteria for Selecting Journals Standards in Review Process		Higher Education
	Gottfredson (1978)	Criteria for Manuscript Selection	Bivariate	
		Criteria for Manuscript Selection Reliability for Peer Judgments Article Quality and Citations	Multivariate	Psychology

Another conclusion arising from this review concerns analytic strategies employed to predict manuscript acceptance. In many of the studies, judges ranked variables according to their importance or influence in

the judging process. In others, correlational techniques were used with acceptance treated as dependent, and internal or external variables as independent. The main focus was on the extent to which judges made consistent judgements concerning the worth of manuscripts. Few authors took their work to a logical conclusion of predicting acceptance. Moreover, those that came close to this goal used simple bivariate statistics that failed to portray variable interactions which undoubtedly influence acceptance. This apparent defect probably arose because few authors (other than journal editors) had access to large pools of rejected manuscripts necessary for such analyses.

There is also a notable absence of theory in this literature. Garfield (1979) presumed he had a theoretical basis for his citation studies; information processors also employ "theory". But in the literature surveyed for this study, there was a notable absence of theory; if anything, researchers merely revealed correlations. The data speak for themselves; at this early stage, researchers are more inclined to proceed inductively than deductively.

Implications for the Present Study

Despite the absence of theory in this area, many of the authors cited above distinguished between internal and external variables that influenced acceptance. The literature cited appears to be typical of situations where both internal and external variables interact to determine acceptance (Fig. 1).

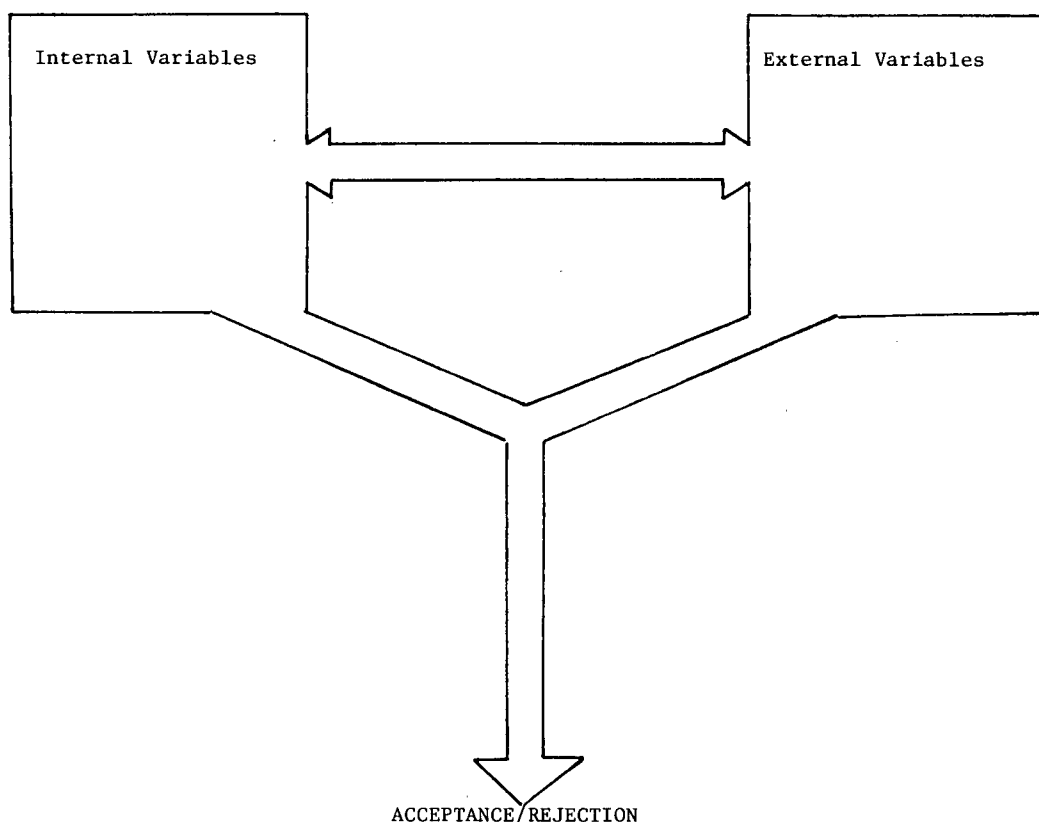


Figure 1 Hypothesized Effects of Variables Influencing Selection of Manuscripts Where the Author is Identified

The distinction between internal and external variables that influence acceptance is useful for the present study. The extent to which external variables operate depends upon whether the adjudication process is blind (e.g., author's names known or unknown). For present purposes, the situation diagrammatically presented in Figure 1 is inappropriate because A.E.R.C. abstracts are reviewed blind. Thus, the situation pertaining to the selection of A.E.R.C. abstracts can be better portrayed as follows (Fig. 2).

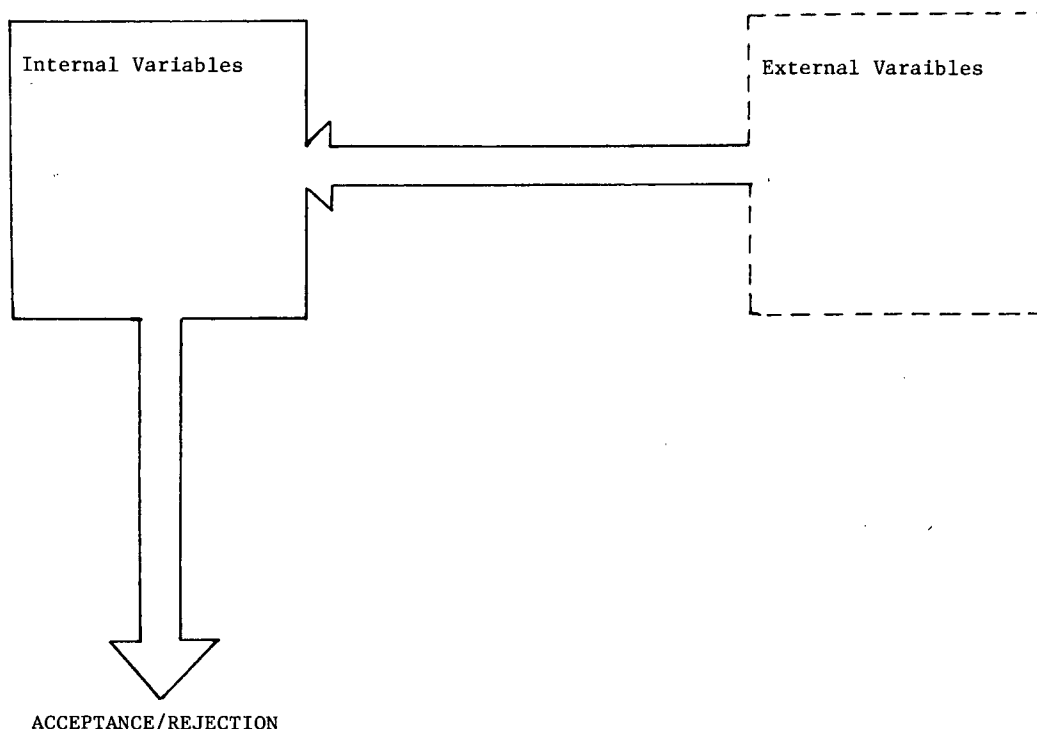


Figure 2 Hypothesized Effects of Variables Influencing Selection of A.E.R.C. Abstracts where Judges are "Blind"

Although external variables possibly have an effect on A.E.R.C. abstract acceptance, they cannot be studied for two reasons; judges have no direct knowledge of authors and, more pragmatically, "external" information is not collected prior to, during, or after the A.E.R.C. Authors merely submit an abstract accompanied by a facing page showing their name and address. Facing pages are removed before abstracts are sent to judges.

CHAPTER 3

ADULT EDUCATION RESEARCH CONFERENCE

The Adult Education Research Conference is an important vehicle for knowledge dissemination within the discipline and field of adult education. The history of the conference and the process for submission, selection, and presentation of conference papers are described in what follows.

Historical Overview and Issues

The Adult Education Research Conference celebrated its 21st birthday in 1980 and has become the largest annual meeting of adult education researchers anywhere in the world. The notion of gathering adult education researchers together was originally conceived in the late 1950's by members of the Commission of Professors (associated with the Adult Education Association of the U.S.A.) who perceived the need for a stronger research orientation within the field. Early meetings, known as the National Seminar on Adult Education Research, consisted largely of students at the University of Chicago and staff members from the now defunct Center for the Study of Liberal Education for Adults. The National Seminar had no constitution, by-laws, or dues, and was run on the good will of interested members and institutions who supplied postage, stationery, and secretarial services.

Over the years, this organization evolved into the A.E.R.C. which functions as informally as its predecessor. Recently, however, because of a need to obtain taxation and other advantages, the A.E.R.C. assumed the

accoutrements of a formal association. During the annual business meeting of the 1976 A.E.R.C. in Toronto, the group decided to incorporate. The membership adopted a formal constitution and by-laws which outline the purposes, membership, dues, directors and their duties, meetings, elections, and other concerns of the organization.

The purposes of the A.E.R.C., as defined in Article II of the constitution, are:

- (1) To promote the improvement of research and evaluation in adult education;
- (2) to foster professional collaboration among persons who promote research, conduct research or utilize research findings in the field of adult education.

To this end, A.E.R.C. sponsors an annual conference which provides a forum for fledgling researchers, recent graduates, and veterans of adult education. In recent years, the organization has become sufficiently important for researchers to travel to "far-off" places like San Antonio and Vancouver. The A.E.R.C. conference site, as in most national organizations, is chosen with the aim of accommodating the needs of researchers dispersed from coast to coast. A listing of cities that have recently hosted A.E.R.C. illustrates this point. In earlier years there was a tendency to hold the A.E.R.C. in the American mid-West; in recent years it has moved across the continent:

- (1982 - Lincoln, Nebraska)
- 1981 - DeKalb, Illinois
- 1980 - Vancouver, British Columbia
- 1979 - Ann Arbor, Michigan

1978 - San Antonio, Texas
1977 - Minneapolis, Minnesota
1976 - Toronto, Ontario
1975 - St. Louis, Missouri
1974 - Chicago, Illinois
1973 - Montreal, Quebec
1972 - Chicago, Illinois
1971 - New York, New York
1970 - Minneapolis, Minnesota.

Recently, an increasing number of foreign researchers have presented papers at A.E.R.C. For example, the 1980 Vancouver conference hosted researchers from Sweden, Great Britain, Nigeria, the United States, and Canada. For North American and, increasingly, for foreign adult educators, the Adult Education Research Conference is an instrument for the dissemination of knowledge.

The opportunity this event provides for dialogue between adult educators and researchers is of central concern to the membership. Adult educators have reiterated this concern in debates related to a possible amalgamation or affiliation of A.E.R.C. with other organizations. One possibility would be a closer relationship with the Adult Education Association (U.S.A.) and the sharing of conference sites and dates. Although loosely affiliated with the A.E.A., the A.E.R.C. maintains its own conference and orientation. Other questions concern amalgamation with the American Educational Research Association. In 1968 Allen Tough asked A.E.R.C. participants for their opinions on this issue. Respondents indicated their

preference for "the autonomy, the smallness and the cohesiveness that was possible by retaining A.E.R.C." (Copeland & Long, 1973). A second survey by the 1972-73 A.E.R.C. Steering Committee showed similar preferences. A highlight in the debate followed at the 1973 Montreal A.E.R.C. At the request of the Steering Committee, Copeland and Long asked: "What professional relationship(s) should adult education researchers/evaluators seek to establish with researchers and evaluators in other fields of education?" Their statement suggested nine advantages and disadvantages of a close relationship and included alternative "A.E.R.C. - A.E.R.A. relationship patterns". Whether or not the membership adopted a particular "relationship pattern" is unclear, although Plan H, "A.E.R.C. should become an incorporated organization of professional adult education researchers/evaluators. Informal or foral [sic] relationships could be established with A.E.R.A. as desired by both A.E.R.C. and A.E.R.A." (p. 7), reflects current A.E.R.C. status. Nevertheless, the amalgamation issue lingers as rising conference costs and reduced expense funds are causing members to once again voice this concern (Rockhill, 1978; Copeland, 1980). In 1981 A.E.R.C. remains as an autonomous organization — an indication of the importance which the membership attributes to its own research conference.

During its 22 years, the size and stature of the A.E.R.C. have expanded in North America and abroad. As noted, there is an increasing involvement by foreign researchers who bring perspectives from different cultural contexts. These exchanges have, until recently, occurred only on an informal, individual basis with little formal exchange between adult education organizations. But in 1978 an official representative from the

United Kingdom Standing Committee on University Training and Research in Adult Education (SCUTREA) and the Porec Conference (organized by the Androgical Center in Zagreb) attended the San Antonio conference and thus began a process which "would result in much useful face-to-face interaction with prominent researchers in adult education ... (and the) ... more rapid diffusion of abstracts and significant research findings" (Kidd, 1977, p. 1). Subsequently, European organizations have invited A.E.R.C. to send representatives to meetings such as the International Seminar on Adult Education Research in Sweden (1979) and the SCUTREA conference (Manchester, 1979). At times, A.E.R.C. participants have been asked to support official representation at these conferences (Ann Arbor, 1979). Though some of the membership agreed to limited support, a substantial number were opposed to expending A.E.R.C. monies for international travel (Fellenz, 1979).

As the A.E.R.C. "comes of age" (theme of the 1980 conference), it has experienced growing "pains". But, from its inauspicious beginning as the National Seminar on Adult Education Research, the A.E.R.C. has expanded into an organization of international dimensions. It has grown from a small group of adult educators in Chicago to a membership dispersed from coast to coast. It has matured from an informally organized body of researchers to an organization structured by a constitution and by-laws. The membership has faced issues concerning the ability of A.E.R.C. to establish and retain its own identity or to amalgamate with larger organizations. Moreover, in recent years, its stature has increased as foreign researchers and educators, individually and as organizations, have participated in the A.E.R.C. Despite coming of age, A.E.R.C. has not assumed the rigidity of adulthood; its conference reflects the informality and

familiarity of the adult educators and researchers who gather to discuss and report their research interests and concerns.

The A.E.R.C. Process

The vehicle by which the A.E.R.C. fulfills its purposes is its annual conference. This event consists of paper and symposia presentations, poster-sessions and research exchanges, the annual business meeting, a graduate student award, and a variety of extra-curricular events. Conference attendance is the only formal membership requirement for the A.E.R.C.

The A.E.R.C. is arranged by a four-person executive committee of which two new members are elected annually to insure continuity. Nominations are received prior to, and during the short business meeting associated with the A.E.R.C. In recent years there has been some unhappiness associated with the election of judges.² Figure 3 shows the names of judges associated with the A.E.R.C. in recent years. It is this body's responsibility to organize the conference and publish its proceedings. Each year the A.E.R.C. executive issues a "Call for Papers" mailed to all former attendees (on a mailing list of approximately 1,500 names) and advertised in various adult education journals. Abstracts of papers offered for possible presentation are received and evaluated by the four executive members (judges) who meet at the Annual Conference of the A.E.A. (U.S.A.) which is usually held in October or November. These abstracts are judged blind, that is, the judges are not told who the authors are. There is no handbook to guide the judging process. The overlapping judges pass on their understanding of the judging procedures, thereby ensuring some continuity from one year to the next.

²In view of the fact A.E.R.C. moves from city to city and anyone attending the business meeting is deemed to be a member, it is possible for "locals" to elect "their own" people to the Steering Committee. At recent annual meetings of the A.E.R.C. various prominent participants have exhorted voters to critically appraise all candidates.

1978			
Kreitlow			
Davie			
		1979	
Cunningham	Cunningham		
Pennington	Pennington		
		1980	
		Spikes	Spikes
		Fellenz	Fellenz
		1981	
		Boshier	Boshier
		Simpson	Simpson
			Merriam
			Compton

Figure 3 A.E.R.C. Steering Committee Members from 1978 - 1981

The 1980 and 1981 A.E.R.C. Steering Committees used the following procedure to select abstracts for the conference. All abstracts were read before the meeting with committee members making their individual choices. At their meeting, the members made a "first cut" whereby abstracts were un-animously chosen as accepted. Because an insufficient number (necessary for the A.E.R.C. programme) of abstracts was selected, the committee then made a second and third cut until the required number was obtained. Thus, if on the first round the committee unanimously agreed on only 25 acceptable ab-stracts, then second and third selections were made until the necessary 40-45 abstracts were chosen. In addition, the committee chose "alternate" ab-stracts in case some of the accepted papers could not be presented at the conference.

Successful authors were notified that their abstract had been accepted; they then had to provide a copy of the entire paper for inclusion in the conference proceedings. Currently, about 150 abstracts enter the judging process; about 45 are accepted. (There are also some symposia but they fall outside the scope of this study.) Until 1981, the executive specified that abstracts must not exceed 250 words; no other requirements were promulgated.

Much social science research involves development of reliable and valid instruments. Usually, it is the behaviour of human beings or animals that is measured by social scientists. The present study involved measurement of A.E.R.C. abstracts, in particular, variables likely to be associated with their acceptance or rejection. Because the problem required the identification and quantification of "acceptance" variables and much of the coding work was done by one researcher, it was essential that a reliable and valid measuring instrument be developed. The following chapter describes considerations pertaining to the instrument, its development, and variables selected for study.

CHAPTER 4

INSTRUMENT DEVELOPMENT

INTRODUCTION

The first purpose of this chapter is to describe general considerations pertaining to the development of the instrument constructed to accomplish the goals of this study. The second purpose is to discuss issues relating to the development and use of the instrument, focusing on variables, their operationalization, reliability, and validity.

General Considerations

As noted in Chapter 1, the purpose of this study was to understand and predict acceptance of A.E.R.C. abstracts. Prior to constructing a draft instrument it was apparent that the study would be enhanced if:

- i. variables were cast on equal-interval scales that would render data suitable for parametric analysis;
- ii. scale-points were properly "anchored" (by providing clear labels or examples for each scale-point);
- iii. where possible, variables were operationalized in accord with extant social science and adult education theory;
- iv. pilot testing was employed to ensure that the final instrument was reliable and valid; and
- v. liberal criteria were employed for coding abstracts (as suggested by a cursory examination of abstracts).

VARIABLE SELECTION

The descriptive and largely atheoretical nature of previous manuscript selection literature and the absence of studies concerning the selection of adult education or other papers for conference presentation led to a decision to employ numerous, largely inductively derived variables. Any variable, no matter how inconsequential, that appeared to be associated with the acceptance of papers, was eligible for inclusion in this study. Variables were derived by:

- i. examining relevant research concerning acceptance/rejection of journal articles; (see Chapter 2)
- ii. conferring with A.E.R.C. officers;
- iii. attending the 1980 A.E.R.C.; and
- iv. conferring with knowledgeable adult education researchers.

Some variables noted below may appear trite. For example, could "the number of words in the abstract title" be a predictor of acceptance? But, in the absence of previous work upon which to base judgements concerning triteness or any other attribute, many potential predictors were included. Many would possibly be eliminated in the first steps of the planned discriminant function analysis.

With regard to the foregoing, the following variables were considered:

Dependent variable (y) — acceptance/rejection

Independent variables (x) —

- | | |
|-------------------|----------------------------------|
| Content Variables | — Foundations |
| | — Characteristics/Adult Learning |
| | — Agency or Institution |

Process Variables

- Programme Planning
- Instruction/Techniques
- Adult Education Discipline
- Theoretical/Conceptual
- Archival/Historical
- Empirical/Hard Data
- Admonitional/Prescriptive
- Methodological

- No. of Direct Citations
- No. of Authors Cited
- Deductive
- Inductive
- State of the Research
- Cumulative Literature
- Novelty of Research
- Research Design
- Data Collection
- Instrumentation
- Instrument Reliability
- Instrument Validity
- Sample or Population
- Type of analysis
- Results
- Conclusions
- Research Implications
- Theoretical Implications
- Implications for the Field

- Compositional Variables — No. of Words in the Title
- No. of Words in the Abstract
 - Original Form
 - Attachments
 - Presentation
 - Voice
 - Jargon
 - Funding Source
 - Flow of the Argument

A complete description of these 39 variables is presented in Appendix 1. For some, the operationalization is obvious: "no. of words in the title" clearly refers to the number of words (including to, but, and other conjunctions). Others were less clear. These are described in the discussion that follows.

DEPENDENT VARIABLE

As described in the previous chapter, four A.E.R.C. judges selected abstracts in a blind review process. Accepted abstracts were subsequently published in the conference programme. For the purposes of this study, publication in the conference programme signified acceptance; if not listed, the abstract was classified as rejected. The dependent variable was thus dichotomous. Accepted abstracts were coded 2; rejected abstracts were coded 1.

INDEPENDENT VARIABLES

In considering internal variables that might predict acceptance, it was apparent from a preliminary review of the abstracts to be coded that some variables were related to content, others to the research process, and others to compositional aspects. Accordingly, the independent variables were organized into three major classes: content, process, and compositional.

Content Variables

The first group of variables related to the abstract content, topic, or area of study. What was the abstract about? What was its focus? What area of adult education did the abstract concern? As well as identifying the particular focus of each abstract, the overall methodological orientation taken in the study was considered as a possible relevant variable. Thus, two variables were involved—adult education focus and methodological orientation.

Adult Education Focus

Previous researchers have attempted to classify areas of adult education (Lee, 1979; Long & Agyekum, 1974; Dickinson & Rusnell, 1971). Each of these studies involved the classification of content in the journal Adult Education. The process of classifying A.E.R.C. abstracts into primary areas of adult education was similar. The model which underlay the classification employed herein was based on Verner's (1962) distinction between method and techniques and the associated differentiation of programme planning and instruction. This distinction was amplified in Boshier's (1978) model which enabled Lee (1979) to classify Adult Education

articles by subject. This scheme is an improvement on the classificatory system used by Dickinson and Rusnell (1971) for their content analysis of Adult Education. The variables for classifying areas of adult education were as follows:

Variable 1 — Foundations of Adult Education — Studies in this category were concerned with the functions of adult education; its philosophy (i.e., rationale and principles); international perspectives; lifelong education; public policy; and basic concepts.

Variable 2 — Characteristics of Adult Learners and Adult Learning — These studies focused on the adult life-cycle; physiological/psychological determinants of behaviour; theories of learning; or differences between adults and children that have implications for learning and motivation. Learning project studies identifying characteristics of learners were included in this category.

Variable 3 — Agency or Institutional Sponsors — These abstracts were concerned with sponsors of adult programmes such as universities, community groups, or government. The focus of the abstract was the sponsor; a unique way in which an agency conducted a needs-assessment or programme evaluation was not included in this variable.

Variable 4 — Programme Planning, Participation, Administration and Methods — This variable referred to the initiation and maintenance of educational activities including participation concerns, administrative concepts, and practices. Studies included those concerning individual, group, and community methods; needs and needs analysis; programme goals; the budgeting and marketing of programmes; their evaluation; and participation, drop-out and persistence.

Variable 5 — Design and Management of Instruction: Techniques and Devices — This variable referred to materials, procedures, strategies, and/or systems for establishing a relationship between learning tasks and learners. Studies coded "yes" on this variable were concerned with objective setting, analysis into learning tasks and techniques; techniques and devices; evaluation of learning; and evaluation of instruction.

Variable 6 — Adult Education as a Discipline and Field of Study — These studies were concerned with issues related to the discipline of adult education. Abstracts on topics such as meta-research, dissemination of knowledge about the discipline, and the training of adult educators were coded "yes" on this variable.

Coding

Each variable was coded dichotomously (see Appendix 1). Most abstracts could be coded in a single category. However, a number of abstracts concerned two (and sometimes more) areas of adult education. For example, a study concerning the use of group discussion and a discussion groups was coded "yes" on Variable 4 (Programme Planning) and Variable 5 (Instruction).³

Methodological Orientations

Social science textbooks writers use various frameworks to classify "types" of research. Some distinguish between ex post facto and experimental research (e.g., Campbell & Stanley, 1963); others organize chapters around "empirical", "historical", and "methodological" foci (e.g., Kerlinger, 1973). The recent handbook of research in adult education (Long & Hiemstra, 1980) has chapters on "survey research", "grounded theory", "historical

³The distinction between group discussion (a technique) and the discussion group (a method) arises from Verner's (1962) conceptual scheme.

research", and "experimental research". This mix of methodologies and theoretical approaches will raise the ire of some critics. But it does provide a minimal framework for classifying adult education research.

Casual examination of A.E.R.C. abstracts suggested that they could be reliably and validly coded on five dichotomous variables as follows:

Variable 7 — Theoretical/Conceptual — Theory was the primary focus of the study.

Variable 8 — Archival/Historical — The abstract reported a study which investigated, recorded, analysed, and interpreted events of the past for the purpose of making generalizations about the past, present, and future.

Variable 9 — Empirical/Hard Data — The primary focus of the study was the gathering and analysis of data.

Variable 10 — Admonitional/Prescriptive — The abstract exhorted readers to adopt a particular stance (for example, in favour of grounded theory or multivariate statistics). The tone of the entire abstract, not just the conclusions, had to be prescriptive and hortatory.

Variable 11 — Methodological — The intent of the research was clearly to investigate a use of a particular methodology. Empirically-oriented abstracts focusing only on instrument development were also included in this category. The use of innovative methodology as an incidental adjunct to a larger problem was not considered to be a methodological focus.

Coding.

Each variable was coded dichotomously (see Appendix 1). Pilot testing procedures determined that most abstracts could be coded in a single category (e.g., an empirical study). Some were coded "yes" on two variables.

For example, an abstract advocating the use of a particular qualitative methodology was coded "yes" on both methodological and admonitional/pre-scriptive. A small number could not be fitted into any category (e.g., a description of a particular A.B.E. outreach programme).

Process Variables

The variables included under process were those typically associated with the canons of research. Six steps commonly employed when designing, completing, and reporting research were considered. Although each step may be employed to varying degrees by different researchers, authorities (e.g., Kerlinger, 1973) appear to support the notion that any research project will involve:

1. The development of a theory to guide hypothesis formulation and data gathering activities (theoretical development);
2. The review of literature relevant to the problem (literature review);
3. The design of a plan to gather data relevant to the problem and desired analysis (research design);
4. The implementation of procedures for data collection, instrument development, and sample selection (methodology);
5. The generation of results relevant to the theory and problem (results); and
6. The creation of conclusions and discussion based on the previously generated results (conclusions and discussion).

Table 2 contains brief descriptions of each of the six steps listed above and shows the scale categories used when coding these variables. A seventh variable, "State of the Research" (see Table 2) refers to the extent to which each abstract reported finished or "in progress" research.

Table 2

Process Variables (and their Scaling) Employed in a
Study of A.E.R.C. Abstract Acceptance

Steps in the Research Process	Variables	Scale Categories
1. Theoretical Development	Deductive	Not deductive = 1 Possibly deductive = 2 Probably deductive = 3 Definitely deductive = 4
	Inductive	Not inductive = 1 Possibly inductive = 2 Probably inductive = 3 Definitely inductive = 4
2. Literature Review	Number of direct citations	Actual count
	Number of authors cited	Actual count
	Cumulative Literature	Not at all cumulative = 1 Slightly cumulative = 2 Moderately cumulative = 3 Extremely cumulative = 4
	Novelty of Research	Is an elaboration of old ideas = 1 Breaks new ground or presents new ideas = 2
3. Research Design	Research Design	Not identified = 1 Ex post facto (including historical) = 2 Quasi-experimental = 3 Experimental = 4
4. Methodology	Data Collection	
	Instrumentation	
	Instrument Reliability	Not identified = 1 Barely identified = 2 Partially identified = 3 Explicitly identified = 4
	Instrument Validity	
	Sample or Population	
	Analysis used	No = 1 Yes = 2
	Type of Analysis	Analyzed data but "type" unclear = 2 Univariate -- frequencies only = 3 Bivariate -- chi-square analysis, one-way ANOVA, t-test = 4 Multivariate -- regression, factor analysis, discriminant function analysis, AID 3 = 5
5. Results	Results	Not identified = 1 Barely identified = 2 Partially identified = 3 Explicitly identified = 4
6. Conclusions & Discussion	Conclusions	
	Research Implications	Not identified = 1 Barely identified = 2 Partially identified = 3 Explicitly identified = 4
	Theoretical Implications	
	Implications for the Field	
7. State of the Research	State of the Research	Conceptual phase = 1 Planning phase = 2 Operational phase = 3 Analytical phase = 4 Results and Conclusions phase = 5 Implications phase = 6

Step One: Theoretical Development

Coding. As noted in Table 2, two variables were associated with this step in the research process. Marx (1963) described four types of "meta-theory", that is, relationships between the conceptual (theory) and empirical (data) levels. Critical to this study was the distinction between deductive and inductive theory construction. Deductive theory describes a situation where a formally organized theory guides research. Resulting data are used to modify and produce new and better theory. Inductive theory, which consists of summary statements of empirical relationships, describes an inverse situation. Data are collected, analyzed, and theoretical statements made, after the data "have spoken". Numerical codes assigned to each category are shown below.

Variable 12 — Deductive Theory

Not deductive — This code was used where the research was not deductively derived. For example, if the research was definitely inductively derived, or if no theoretical base was apparent, the study was coded in this category. = 1

Possibly deductive — This code was used where the study possibly flowed from an existing theory. For example, an abstract with the statement "An exploratory attempt was made to investigate the efficacy of a theoretical model which predicts participation in continuing professional education" would be coded in this category. = 2

Probably deductive — This code was used where the theoretical framework employed was most likely deductively derived. A study drawing theoretical guidance from Miller's force field analysis of participation in adult education was an example in this category. = 3

Definitely deductive — This code was used where the study definitely flowed from extant theory. For example, a study of teacher-learner interactions based on Rogerian congruence theory was coded "definitely deductive". = 4

The second variable concerned the extent to which the study flowed from an inductively derived theoretical stance.

Variable 13 — Inductive Theory

Not inductive — This code was used where the research was not inductively derived. If, for example, the study was definitely deductively derived or, if there was no evidence of inductive processes, the abstract was coded in this category. = 1

Possibly inductive — This code was used where the study showed some evidence of inductive theoretical development. For example, an abstract stating "research identified 23 skills associated with establishment of psychological climate and management of learning groups" or a paper focusing on learning projects data were coded as "possibly inductive". = 2

Probably inductive — This code was used where the research showed strong evidence of inductive processes. For example, an abstract which stated "In an effort to construct empirically derived scenarios concerning the immediate future of adult education, a Delphi survey was conducted" was coded in this category = 3

Definitely inductive — This code was used where the research was definitely based on inductive processes. Recent "grounded theory" studies of adult basic education organizations or works of fiction were examples from this category. = 4

Step Two: Literature Review

A literature review serves to explain the theoretical rationale for the problem and locate the study in an existing body of research. Four variables were examined to assess the extent to which abstracts conformed to this step in the research process. These were: number of direct citations; number of authors cited; cumulativeness of the literature; and novelty of the research.

Variable 14 — Number of direct citations

Citations directly cited in the abstract (00 - 99)
(enter the actual count)

Refers to the number of direct references made to studies, articles, instruments (e.g., Boshier's E.P.S.). For example, "previous participation studies ..." is not a direct citation. For a citation to be direct, someone must be named. If an author is cited more than once for different contributions (e.g., Tough, 1974; 1978) this counts as two citations. Self-citations are also included.

Variable 15 — Number of authors cited

The number of different authors cited (00 - 99)
(enter the actual count)

Refers to the individual authors cited. If there are co-authors, each is counted individually (e.g., Johnston & Rivera counts as two authors). If an author is cited more than once (e.g., Verner, 1962; Verner & Booth, 1964) this counts as only one citation for Verner. An institution is an author (e.g., UNESCO, 1972).

Variable 16 — Cumulative Literature — This variable referred to the cumulativeness of literature in adult education and related disciplines and focused on the content, not the methodology of the research. For example, a study of mid-life crises using a content analysis of novels by male authors stems from a substantial body of knowledge although the research approach was "new". This abstract was considered to stem from an "extremely cumulative" body of knowledge. Liberal criteria were used to code this variable as follows:

Not at all cumulative — This code was used when studies did not appear to stem from any "known" body of research or approach to the problem. Examples of abstracts coded in this category included a study of the war metaphor in adult basic education or an analysis of existential themes in adult education. = 1

Slightly cumulative — This code was used when reference was made to not more than one "antecedent" piece of literature or recognizable idea/model/theoretical orientation in adult education or another discipline. Examples in this category included studies concerning the future of adult education. = 2

Moderately cumulative — This code was used when reference was made to at least two "antecedents" or a modest body of knowledge known to exist in adult education or elsewhere. Examples in this category included: meta-research literature (e.g., an historical analysis and taxonomy of meta-research in adult education); literature on margin (e.g., a study testing the theory of margin using a population of widows); comparative education (e.g., a study on the ascription of needs in adult education in Alberta and Quebec); or learning projects (e.g., an abstract concerning the learning projects of low income, urban adults). = 3

Extremely cumulative — This code was used when reference was made to three or more "antecedents" or to a substantial body of knowledge. Typical of literature in this category were studies focusing on participation, the adult life-cycle, programme evaluation, motivational orientations, group dynamics, or needs-assessment. = 4

Variable 17 — Novelty of Research for Adult Education — In order to develop a solid body of knowledge, researchers are encouraged to replicate and build on previous research. However, novel approaches to research stimulate growth. Casual observation and consultation with present and former members of the A.E.R.C. steering committee suggested that some variance in acceptance was due to the unconventional, new, or "catchy" nature of a project. This dichotomous variable was scaled as follows:

Is an elaboration of old ideas — This code was used when the research followed "traditional" methodologies and/or well-established areas of study in adult education. Examples in this category included abstracts describing a descriptive study on learning projects; continuing professional education needs assessment; research on competencies of adult instructors; or studies utilizing the Education Participation Scale (Boshier, 1977). = 1

Breaks new ground or presents new ideas — This code was used when the study appeared to employ an innovative methodology or concern a "novel" problem or heretofore neglected area of research. Examples included a study which examined the "value of Jean-Paul Sartre's philosophical play The Flies in terms of its existential ethical value for adult educators"; an abstract based on the use of "autobiographical material to investigate the life perspectives of adults"; and a study on "the artist as educator" which utilized interviews with artists and "aesthetic theory with special reference to the communicative function of art". = 2

Step Three: Research Design

A research design is the plan, structure, and strategy of the study. Its basic purpose is to provide answers to questions in scientifically defensible ways. The variable associated with this step of the research process was "research design". For present purposes three design categories were considered: ex post facto, quasi-experimental, and experimental.

Variable 18 — Research Design

Ex post facto — The researcher examined the effects of a naturally occurring treatment after it had occurred. This category was broadened to also include historical research and Campbell and Stanley's (1963) pre-experimental designs (i.e., one-shot case study, one-group pretest-posttest design, static group comparison). This category also included survey research, content analyses, and descriptive or case studies. Most adult education research was coded in this category.

= 2

Quasi-experimental — The researcher manipulated a treatment and controlled for some, but not all sources of internal validity. Included in this category were time-series, equivalent time samples, equivalent materials samples, and non-equivalent control groups designs (Campbell & Stanley, 1963). If an abstract stated "Fifty adults participated, the experimental groups attended a one day workshop; the control group did not attend. Pre- and post-tests were administered", the abstract was coded quasi-experimental. There was no mention of random assignment, a critical element in an experimental design.

= 3

Experimental — The investigator manipulated at least one independent variable and controlled for all sources of internal validity. These designs included: pretest-posttest control group, Solomon four-group, and posttest only control group (Campbell & Stanley, 1963). For the purposes of this study, factorial designs in which randomization was used, were also included in this category.

= 4

Coding. As shown in Table 2, the three design categories were coded as 2, 3, and 4 respectively. If the design was not apparent, or no design was called for, the abstract was coded 1.

Step Four: Methodology

Methodology refers to formal procedures carried out by the researcher. The researcher selects a sample, collects data, tests hypotheses, and analyzes data. Methodology is not limited to empirical research; conceptual/theoretical or archival/historical studies are also based on sound research strategies. For example, an historically focused study included information on primary and secondary data sources and subsequent analysis strategies.

As noted in Table 2, six variables were associated with this step in the research process: data collection, instrumentation, instrument reliability, instrument validity, sample or population, and type of analysis.

Variable 19 — Data Collection — This variable was scored as follows:

Not identified — This code was used when an abstract gave no information concerning data collection, for example, "Data were gathered". = 1

Barely identified — This code was used when an abstract made only vague statements concerning data collection, for example, "100 interviews were conducted"; "questionnaires were mailed to state-wide college administrators"; "a grounded theory approach was used"; or "workshop participants completed an attitude scale". = 2

Partially identified — This code was used when an abstract identified several procedures in the data collection process, for example, "Trained interviewers conducted 20 minute telephone interviews" or "a grounded theory approach, utilizing in-depth interviews with college administrators". = 3

Explicitly identified — This code was used when the abstract clearly explained all data gathering procedures. For example, the following abstract was coded in this category: "data collection was of two types: a paper and pencil instrument comprised of semantic differential items ... and open ended questions to assess ... and video-taping of each session with sensitive recording of verbal and non-verbal reactions to the ongoing experience". = 4

Variable 20 — Instrumentation — This variable concerned the extent to which instruments used in the data collection process were described. To qualify, the abstract had to identify and/or describe an instrument(s) used to collect data. Frequently used instruments include personality tests, attitude scales, interest inventories, intelligence and aptitude tests, and interview schedules. Other instruments include rating scales or recording devices used in connection with, for example, a Bales or

Flanders interaction analysis. As with some previous variables, liberal criteria were used for coding. However, instrument identification was not based on naming generic types (i.e., personality test); the name or some content was necessary in order to be coded. Thus, a statement such as "Subjects completed a personality inventory" was coded "not identified".

Coding. This variable was scaled as follows:

- Not identified — No mention of specific instrumentation. = 1
- Barely identified — Only a "bare-bones" description is given (e.g., a questionnaire concerning attitudes towards continuing professional education was administered). = 2
- Partially identified — Some content of the instrument is described (e.g., the first question asked respondents to rank order statements concerning the need for continuing professional education). = 3
- Explicitly identified — Specific detail concerning at least one instrument is given. The name or author of an instrument (e.g., 16 P.F., Eysenck Personality Inventory) is sufficient if the instrument is known and has an established reputation. Where the experimenter has used two or more instruments only one need be "explicitly" identified. = 4

Variable 21 — Instrument Reliability — This referred to the stability and/or consistency of a measuring instrument. To be "positively" coded on this variable, an abstract had to contain a description of the type of reliability — test-retest, parallel forms, or internal consistency.

Coding. The following four-point scale was used to score instrument reliability:

- Not identified — No information given. = 1
- Barely identified — Reference to the fact instrument is reliable but no evidence of having tested its reliability in the present study (e.g., ... an instrument with known reliabilities was employed ...). = 2

Partially identified — Oblique reference to the fact instrument reliability procedures were employed in the present study, results are probably available but are not revealed in the abstract (e.g., a six week test re-test reliability procedure was employed ...). = 3

Explicitly identified — Actual type of reliability tests and/or results are revealed (e.g., a six week test re-test procedure showed that the instrument was reliable $r = .67, p < .05$). = 4

Variable 22 — Instrument Validity — This referred to the degree to which an instrument actually measured what it was designed to measure. A "high" code on this variable was obtained if an abstract described the types of validity tested for. Types of validity include: content, criterion-related, and construct.

Coding. The scale for this variable, based on a liberal coding criterion was:

Not identified — No information given at all = 1

Barely identified — Reference to the fact the instrument is valid but no evidence of having tested the validity in the present study (e.g., an instrument with known validity was employed). = 2

Partially identified — Oblique reference to the fact instrument validity procedures were employed in the present study, results are probably available but not revealed in the abstract (e.g., instrument validity was determined). = 3

Explicitly identified — Actual type of validity procedures and/or results are revealed (e.g., content validity was determined by submitting the instrument to a panel of judges). = 4

Variable 23 — Sample or Population — This variable concerned the extent to which an abstract described either the study population or sample. It included the number and demographic characteristics of subjects. The strategies used (e.g., stratified random sample, table of random numbers) to draw the sample were also included in this variable.

Coding. The following scale was used on this variable:

<u>Not identified</u> — No description is given.	= 1
<u>Barely identified</u> — Only a "bare-bones" description given (e.g., total size only — 100 administrators).	= 2
<u>Partially identified</u> — The total number plus two other pieces of information concerning the S's (e.g., 100 women, 18 - 35 years).	= 3
<u>Explicitly identified</u> — The number and three or more additional pieces of information concerning S's or selection/sampling procedures (e.g., 100 female Baptist high school teachers were randomly selected).	= 4

Variable 24 — Type of Analysis — This variable concerned two questions: was some form of data analysis mentioned in the study? If so, what was the "highest" type of analysis — unclear, univariate, bivariate, or multivariate? The criteria for coding this variable were less liberal than for other variables. The abstract had to explicitly describe the type of analysis used. For example, the statement "appropriate multivariate statistics were used" was not considered multivariate analysis, rather it was categorized as "type unclear".

Coding. For the purposes and nature of the research reported, a classification scheme which would yield meaningful data was as follows:

Some form of <u>data analysis</u> was mentioned in this study: No.	= 1
Yes.	= 2
"Highest" type of data analysis: → Analyzed data but "type" unclear.	= 2
<u>Univariate</u> — Frequencies only.	= 3
<u>Bivariate</u> — Chi-square analysis, correlations, One-way ANOVA, t-test.	= 4
<u>Multivariate</u> — Regression, factor analysis, discriminant function analysis, AID 3.	= 5

Although the conceptual foundations of this scaling might be questioned it is contended that this item meets assumptions for ordinality. Where an abstract did not reveal or allude to any type of analysis it was assigned the lowest value (one). Where "analysis" was alluded to, but the "type" was unclear (e.g., "appropriate analyses were conducted") it was coded two; univariate analyses were coded three; bivariate analyses were coded four; multivariate analyses were coded five.

Step Five: Results

The "results" represent the phase in the research process where data are presented. As the focal point of the research, the data are critically analyzed and reported in this phase. The researcher presents data relevant to the research hypothesis. The data are often presented in tables or figures explained with a written commentary. Research results appear in abstracts, although in an abbreviated form. Abstracts contain "results" statements, although tables and figures are not presented.

Variable 25 — Results — This variable considered the extent to which the author reported outcomes arising from data collection and analysis. Although liberal criteria were used in coding this variable, the abstract had to contain some statement, whether very general or more specific, which referred to the research results.

Coding. This variable was scaled as follows:

Not identified — No results were given = 1

Barely identified — If the word result(s) appears, code "barely" because the researcher acknowledges this element exists (e.g., results of the study will be discussed). = 2

Partially identified — A general "result" statement or only one result appears (e.g., results indicated female teachers have a more negative attitude towards continuing education than male teachers).

= 3

Explicitly identified — A definite statement of two or more results appears (e.g., results indicated a more negative attitude towards formal continuing education by female teachers than male teachers. Female teachers, however, spend a greater amount of time on individual learning projects).

= 4

As indicated, if the statement "Results of the study will be discussed" appeared, the abstract was coded "barely identified". The author was given credit for acknowledging that results are integral to the study. For a "higher" code the abstract required one or two specific statements reporting actual results.

Step Six: Conclusions and Discussion

This step, the final phase of the research process, contained several elements. The first is the "findings" which are factual statements based on data analyzed. A second is a discussion of the limitations and weaknesses of the study. In the conclusions, the researcher explores questions raised in the study or states whether the research hypothesis is accepted or rejected. A final element consists of statements which suggest areas or problems for further investigation or which draw implications for research, theorizing, or the field. In an abstract all or some of the above-mentioned elements will appear in an abbreviated form.

Coding. For this study, four variables represented this phase: conclusions; implications for research; implications for theorizing; and implications for the field of practice.

Variable 26 — Conclusions — This variable acknowledged the presence or absence of conclusions stated in the abstract. It did not question the validity of the conclusions, only the extent to which the abstract reported them. These may have been broad or specific statements. The variable was scaled as follows:

Not identified — No conclusions were given. = 1

Barely identified — If the word conclusion(s) appears, code "barely" because the researcher acknowledges this element exists (e.g., conclusions will be discussed). = 2

Partially identified — A general statement of a conclusion appears (e.g., it can be concluded that a conference is a successful means of disseminating information). = 3

Explicitly identified — A definite statement of two or more conclusions appears (e.g., it can be concluded that the Semantic Differential is both a reliable and valid measure of the attitude change which conference participants underwent). = 4

As with preceding variables, liberal criteria were employed. For example, if a sentence such as "Conclusions will be discussed" appeared in the abstract, the author was given credit for acknowledging their importance.

Variable 27 — Implications for Research — Implications allowed the author to extrapolate from the present study to other areas such as further research. The abstract had to contain a general or specific statement concerning implications. The following scales were used for coding:

Not identified — No implications were mentioned. = 1

Barely identified — The researcher "barely" acknowledges implications arise from the study (e.g., implications for future research will be considered) but does not state what they are. = 2

Partially identified — A general statement of implications for research appears (e.g., further studies must be conducted to determine the extent of individual learning projects). At least one actual implication is noted. = 3

Explicitly identified — A definite statement of at least two implications for research appears (e.g., further studies, utilizing more precise criteria than those in this study, must be conducted to determine the extent of individual learning projects. As well, learners must ...). = 4

Variable 28 — Implications for Theorizing — The same criteria for coding applied to this variable:

Not identified — No implications were mentioned. = 1

Barely identified — The researcher "barely" acknowledges implications arise from the study (e.g., implications for future theorizing will be discussed) but does not discuss any. = 2

Partially identified — A general statement of at least one implication for theorizing appears (e.g., force field analysis will be a valuable tool in understanding adult participation). = 3

Explicitly identified — A definite statement of at least two implications for theorizing appears (e.g., force field analysis applied to adult participation suggests the need to re-evaluate this concept. Furthermore ...). = 4

Variable 29 — Implications for the Field of Practice — As in the previous two variables, the following coding scales were employed:

Not identified — No implications were mentioned. = 1

Barely identified — The researcher "barely" acknowledges implications arise from the study (e.g., implications for the practice of adult education will be discussed) but does not actually state any. = 2

Partially identified — A general statement of at least one implication for the field of practice appears (e.g., this study indicates the need to develop a futures orientation in adult education). = 3

Explicitly identified — A definite statement of at least two implications for the field of practice appears (e.g., this study indicates the need for programme planners to give greater consideration to macro-level (e.g., community, societal and global) needs data, and develop a ...). = 4

These variables were coded liberally. If a vague sentence such as "Implications for the field of practice will be discussed" was in the abstract, the author was credited with acknowledging that implications arose, though none were actually stated.

State of the Research

The preceding nineteen variables described the research process. Individual or groups of variables focused on a particular phase of this process. Coding procedures demanded that the researcher judge the extent to which each variable was present in the abstract. An additional variable, "state of the research", concerned the "completeness" of the research or the most advanced stage to which the research had progressed.

Coding.

Variable 30 — State of the Research — The following scale was used:

- | | |
|--|-----|
| <u>Conceptual phase</u> — Evidence that the nature of the problem and variables have been conceptualized, but no evidence that data gathering operations have been performed. | = 1 |
| <u>Planning phase</u> — Plans for implementation of research procedures are revealed but no evidence of actual implementation is presented. | = 2 |
| <u>Operational phase</u> — Researcher has implemented procedures and gathered data. There is no evidence of data analysis. | = 3 |
| <u>Analytical phase</u> — Data were gathered and analyzed but no explicit results were revealed. | = 4 |
| <u>Results and Conclusions phase</u> — Explicit results and conclusions are described. Mere illusion to, or a statement saying that there are results and conclusions is inadequate. Actual results and conclusions must be described. | = 5 |
| <u>Implications phase</u> — Explicit implications for theory, future research or practice are described. Mere illusion to, or a statement saying that there are implications is inadequate. Actual implications must be described. | = 6 |

Liberal coding criteria were not applied to this variable. For example, if the abstract stated "Results and conclusions will be discussed", it was coded in the "Analytical Phase"; no explicit results and conclusions were actually presented. These research phases applied to empirical, historical, and conceptual studies. An abstract with a theoretical/conceptual focus was coded as research in the "conceptual phase". For example, an abstract which concerned a theory of paradigm-transition learning was research in the conceptual phase. The abstract advanced a theory, but it was not tested. Well-designed archival/historical studies also followed phases or states of research.

Compositional Variables

The two groups of variables described thus far focused on the "content" (i.e., topic or areas of study of the abstract) and the "process" (i.e., related to the research process) of the research. The next group of variables concerned the "composition" of an abstract. Composition refers to style (i.e., the author's writing style, grammar) and presentation (i.e., layout, neatness). The following variables related to composition: number of words in the title, number of words in the abstract, abstract presented (on the original form), attachments (added to the abstract), abstract presentation, abstract "voice", jargon, funding source revealed, and clarity and logical flow of the argument.

Coding

The coding for most of these variables was straightforward. Examples included Variables 31 and 32 — Number of words in the title or abstract; Variable 33 — abstract presented on the original form (i.e., the standard form issued in the A.E.R.C. Call for Papers); Variable 34 — attachments

added to the abstract (i.e., were additional sheets stapled onto the form?); and Variable 35 — funding source (i.e., did the abstract mention the funding source of the research?). Others required some judgement on the part of the coder.

Variable 36 — Abstract Presentation — This variable referred to the physical presentation of the abstract:

Sloppy (e.g., gross typing errors; crossing out; bad justification on typing). = 1

Not very neat (e.g., some but not gross errors in typing and layout). = 2

Moderately neat (e.g., no typo's but spacing, etc., not perfect). = 3

Very neat (e.g., 100% error free; impeccable neatness and layout). = 4

Variable 37 — Abstract Voice — The dominant "type" of verb used by the author was used to determine the "voice" of the abstract. In the coding process, abstracts written primarily in an active voice were distinguished from those written in the passive voice.

Passive voice — transitive verbs attribute the verbal action to the person or object (e.g., It is contended that; Chi-square analysis was performed; A questionnaire was completed by participants). = 1

Active voice — the subject performs the action represented by the verb (e.g., The author contends that; The researcher performed a chi-square analysis; Participants completed a questionnaire). = 2

Variable 38 — Jargon — According to the Concise Oxford Dictionary (Sykes, 1976) jargon is speech familiar only to a group or profession. Adult education has some functional jargon stemming from different areas of study. Examples include: "motivational orientations"; "the adult's margin"; "higher order needs"; "experiential learning"; and "needs assessment

strategy". However, authors often "dress-up" their writing by using unnecessary jargon. The following sentence from an abstract illustrates this point: "At the same time an important connection was seen in T. Kuhn's thesis that the development of scientific knowledge is characterized by phases of accumulation within the prevailing paradigm and revolutions in which the whole basis of the paradigm is challenged by an altered conception of the field". In this example, the jargon was dysfunctional; it confused the meaning of the sentence. Functional jargon, on the other hand, served to clarify meaning. For example, the phrase "the adult's margin" is unique to adult education. This phrase labels McClusky's (1963) concept and is buttressed by empirical research. It is a short way of labelling hypothesized relationships between an adult's "power" and "load"; in brief it describes an aspect of the adult learner that many writers consider helps distinguish adult from pre-adult education. Its use is functional. The following scale was used for this variable:

<u>Extensive</u> (e.g., extensive use of unnecessary jargon to "dress-up" the abstract — involves use of non-standard jargon).	= 1
<u>Moderate</u> (e.g., two or three usages of unnecessary, overly pompous jargon).	= 2
<u>Rare</u> (e.g., one or bare minimum use of unnecessary jargon).	= 3
<u>None</u> (e.g., abstract is cleanly written in "plain" language using only "standard" adult education or social science jargon).	= 4

Variable 39 — Clarity and Logical Flow of the Argument — This variable referred to the author's ability to clearly and logically outline the nature of the problem, methodology, results, and conclusions of the study. Clarity of the argument or flow of the abstract was considered to be

independent of the substance or overall content. For example, the abstract could have been clearly and logically written yet devoid of substantive information, i.e., clear but naive. This variable was scaled as follows:

Not at all clear	= 1
Only slightly clear	= 2
Moderately clear	= 3
Extremely clear	= 4

A copy of the coding schedule used is presented in Appendix 1. The schedule consisted of the variables, their criteria, and a brief description of the "anchoring" points for each variable category or level.

PILOT TESTING

The extent to which the variable identification and coding system would result in an instrument sufficiently reliable and valid to be used in the substantive study was examined in a series of pilot studies. The extent to which expert judges made consistent coding decisions and the degree to which the instrument was content valid were examined. In addition to the pilot study, issues related to stability across time were also examined in the main study (see Chapter 5 "Procedures", p.68).

Interjudge Reliability

In this study, interjudge reliability referred to the agreement among five judges trained to use the coding schedule. The following steps outline the interjudge reliability procedures followed:

1. Two professors of adult education with extensive knowledge of research methodology criticized the first draft of the coding schedule, paying particular attention to the instrument, the definition of variables, coding categories, and the proposed format. Recommended changes were incorporated in a second coding schedule.

2. A panel of five judges (the principal investigator, two professors, and two adult education doctoral students with knowledge of research methodologies) coded a sample of five abstracts. The judges were trained to use the instrument. This involved an explanation of the schedule, the coding of an abstract, followed by a comparison of responses and a discussion. After additional clarification of variables, the five judges separately coded the five abstracts. Responses were compared and points of clarification discussed.

3. Changes recommended by the judges in step two were incorporated into the final coding schedule (see Appendix 1). Following an explanation of the changes, the judges independently coded five new abstracts.

Table 3 shows reliability indices on each variable for two aspects of interjudge reliability—"interjudge" which shows the extent to which judges agreed among themselves and "researcher-judges" which shows the extent to which the researcher agreed with the other four judges. Although judges coded a total of eleven abstracts, reliability indices were based only on the last nine to control for training effects. Training occurred primarily during the coding of the first and second abstracts. Changes incorporated into the final coding schedule were based on judge's recommendations. Therefore, judges required no additional training before coding the second group of abstracts.

Table 3

Inter-judge Reliability Indices for 39 Variables Related
to Acceptance of A.E.R.C. Abstracts

Variable	Inter-judge		Researcher-judges	
	F-Ratio	F-Prob.	F-Ratio	F-Prob.
Content				
Foundations	1.35		1.86	
Characteristics/Adult Learning	.57		.33	
Agency or Institution	.71		2.53	
Programme Planning	.50		.02	
Instruction/Techniques	.21		.33	
Adult Education Discipline	1.00		.47	
Theoretical/Conceptual	.31		.85	
Archival/Historical	2.28		.51	
Empirical/Hard Data	.29		.0	
Admonitional/Prescriptive	4.29	.005	1.39	
Methodological	.85		3.22	
Process				
No. of direct citations	.00		.00	
No. of authors cited	.01		.01	
Deductive	.34		.78	
Inductive	6.94	.0002	7.96	.007
State of the Research	1.25		4.63	.04
Cumulative Literature	1.34		2.57	
Novelty of Research	1.11		1.39	
Research Design	.60		.01	
Data Collection	.63		.63	
Instrumentation	.16		.01	
Instrument Reliability	pa		pa	
Instrument Validity	1.00		.25	
Sample or Population	.14		.58	
Type of Analysis	.76		.49	
Results	.62		.71	
Conclusions	.92		2.54	
Research Implications	.61		.78	
Theoretical Implications	1.28		2.59	
Implications for the Field	.94		1.10	
Compositional				
No. of words in the title	.0		.0	
No. of words in the abstract	.0		.0	
Original Form	.17		.0	
Attachments	.0		.0	
Presentation	.98		.01	
Voice	.98		.02	
Jargon	.28		.88	
Funding Source	.75		.51	
Flow of the Argument	1.59		.03	

The SPSS subprogram Reliability, which performs a repeated measures design analysis of variance, was used to examine interjudge agreement concerning the nine abstracts coded by the five judges. As shown in Table 3, the significance of differences between the mean codes of the five judges was generally negligible. Considering that 39 calculations were involved, it is possible that the two significant F-values for the interjudge ratings occurred because of Type I errors. This, coupled with the 37 insignificant F ratios suggested that judges made consistent ratings of the nine abstracts. Despite this conclusion, caution demanded that the statistics for admonitional/prescriptive ($F = 4.29$) and inductive ($F = 6.94$) be examined further. An examination of means and S.D.'s for each researcher on the variable inductive showed the following: Judge 1 (the researcher) — $\bar{X}=1.00$, S.D.=.00; Judge 2 — $\bar{X}=2.56$, S.D.=1.01; Judge 3 — $\bar{X}=1.78$, S.D.=.67; Judge 4 — $\bar{X}=1.78$, S.D.=.67; and Judge 5 — $\bar{X}=1.22$, S.D.=.67. An examination of the variable admonitional/prescriptive showed the following means and S.D.'s. Judge 1 (the researcher) — $\bar{X}=1.00$, S.D.=.00; Judge 2 — $\bar{X}=1.00$, S.D.=.00; Judge 3 — $\bar{X}=1.11$, S.D.=.33; Judge 4 — $\bar{X}=1.00$, S.D.=.00; and Judge 5 — $\bar{X}=1.44$, S.D.=.53. These findings suggest that the disagreement amongst the judges was not caused by the researcher.

The researcher-judges reliability index was also computed using the SPSS subprogram Reliability. Table 3 shows that on only two of the 39 variables, inductive ($F=7.69$, $p < .007$) and state of the research ($F=4.63$, $p < .04$) were the researcher and judges in significant disagreement. The researcher's inductive mean was 1.00 (S.D.=0.00): the mean

for the other judges was $\bar{X}=1.83$ (S.D.=.88). The inductive results suggest that the large discrepancy between the mean of Judge 2 and those of the other judges influenced the degree of agreement between the researcher and the four judges. The variable admonitional/prescriptive yielded no significant disagreement between the researcher and the other judges. Though state of the research showed that the researcher did not agree with the other judges, there was no significant disagreement between the five judges.

Thus, although the findings yielded two variables on which the five judges varied significantly, the disagreement did not stem from the researcher. On the other 37 variables, the five judges agreed on their abstract codings. The primary purpose of the interjudge reliability strategies was to test the researcher's ability to do the coding reliably. It was concluded that the researcher's coding decisions were congruent with those of the other judges.

Validity

Coding schedule validity was examined by considering the completeness of the list of internal variables related to acceptance/rejection. Two panels of judges critiqued the research instrument. The first consisted of two professors and two doctoral students of adult education who participated in the interjudge agreement study. Suggestions made by this panel were incorporated in the final draft of the instrument. The second panel consisted of the 1981 four-member A.E.R.C. Steering Committee. Just prior to the selection of abstracts for the 1981 conference, each committee member reviewed a copy of the final coding schedule. Each member was asked to

identify any missing internal variables which they considered would influence the judging process, and to critique each variable's coding categories. No changes or additions were recommended by the second panel.

CHAPTER 5

PROCEDURES

The following chapter describes the data collection procedures involved in this study. Prior to describing the coding process it is necessary to discuss considerations that led to the adoption of coding procedures. The second part of this chapter discusses the abstract coding process; the third concerns the stability over time of the instrument. The final section discusses data analysis procedures.

Preliminary Considerations

The success of this study rested on the need to avoid instrumentation bias (Campbell & Stanley, 1963) in the abstract coding process. Considering the nature of the task it appeared that the greatest threats to internal validity could stem from fatigue, boredom, and changes in variable criteria during the time of the coding process. These factors would be particularly detrimental if abstracts were coded on a year by year basis. Poorly written abstracts posed another threat in that "invalid" codes might be assigned where abstracts were ambiguous. For example, in a poorly written abstract, it might be difficult to determine if the abstract's theoretical or conceptual basis was deductive or inductive. Another potential problem was the possibility of bias associated with knowing that an abstract was accepted or rejected. It was also necessary to keep the data as close as possible to the coding categories. It was felt that coding error could be reduced by coding each abstract onto a schedule rather than directly onto an IBM form. In view of the above considerations, the following steps were followed to code each abstract.

Coding

1. Abstracts were collected from the 1978, 1979, and 1980 A.E.R.C. conferences. These years were studied because abstracts were known to be available. The decision was not based on anything other than this practical consideration. The total number of abstracts across the years was 329 (1978 $n=77$; 1979 $n=126$; 1980 $n=126$). Most abstracts were submitted on the standard form (see Appendix 2) issued with the A.E.R.C. Call for Papers. A few were submitted on regular typing paper. Abstracts contained no information concerning authorship or other external variables.

2. Abstracts were classified as accepted/rejected. As described in the previous chapter, abstracts "published" in conference programmes or proceedings were considered accepted; the remaining were classified as rejected.

3. A serial number and codes indicating the "year" and whether the abstract was accepted or rejected were assigned to each abstract.

4. The serial number, codes, and the title of the abstract were concealed by folding over the top portion of the page.

5. The abstracts were then shuffled and mixed together across years to avoid coding on a year by year basis. As well, during the coding process, abstracts were randomly selected from the pile to further ensure randomness.

6. The 329 abstracts were read and coded during a five-week period. Approximately fifteen to twenty abstracts were processed daily, although there was no attempt to code a set number each day. The minimum number of abstracts read in a day was 6; the maximum was 26.

7. Each abstract was coded directly onto a coding schedule (see Appendix 1).

8. After each abstract had been coded, information pertaining to abstract number, acceptance, year the abstract was presented, and number of words in the title was noted on the coding schedule.

Stability Over Time

During the coding process it was necessary to take steps to measure the extent to which the procedures remained stable. The instrument's stability across time was established as follows:

1. Five weeks after coding was completed, a random sample of 97 abstracts was recoded. A table of random numbers was used to select a pre-determined number of abstracts for each day of coding (approximately 25 percent, i.e., if fifteen abstracts were coded on a single day, four were randomly selected for recoding; if eleven abstracts were coded then three were randomly selected for recoding).

2. Using a table of random numbers, abstracts were assigned to five different coding days. Abstracts were recoded on five consecutive days. Information concerning the title and acceptance were kept hidden. After coding, four abstracts were randomly selected and re-assigned to the following day. Thus, twenty abstracts were recoded three times.

Table 4 shows stability-across-time reliability coefficients (Pearson product-moment correlations) for each variable. These were calculated using the SPSS program for Pearson product-moment correlations.

Table 4
Stability Across Time Indices for Variables Related
to Acceptance of A.E.R.C. Abstracts

Variable	T ₁ -RT ₂ n=97	T ₁ -RT ₃ n=20	RT ₂ -RT ₃ n=20
Content			
Foundations	.66	.72	.72
Characteristics/Adult Learning	.75	.85	.81
Agency or Institution	.54	.41*	.72
Programme Planning	.78	1.0	.83
Instruction/Techniques	.64	.71	.86
Adult Education Discipline	.69	.82	.66
Theoretical/Conceptual	.66	.77	.72
Archival/Historical	.71	1.0	1.0
Empirical/Hard Data	.67	.78	.93
Admonitional/Prescriptive	.54	1.0	1.0
Methodological	.66	.72	1.0
Process			
No. of direct citations	.84	.96	.96
No. of authors cited	.97	1.0	1.0
Deductive	.29	.42*	.92
Inductive	.28	.58	.88
State of the Research	.63	.66	.87
Cumulative Literature	.37	.64	.82
Novelty of Research	.42	.71	.66
Research Design	.42	.71	.54
Data Collection	.73	.85	.89
Instrumentation	.82	.97	.96
Instrument Reliability	1.0	1.0	1.0
Instrument Validity	1.0	1.0	1.0
Sample or Population	.80	.65	.89
Type of Analysis	.84	.79	1.0
Results	.95	.86	.91
Conclusions	.69	.62	1.0
Research Implications	.59	.63	1.0
Theoretical Implications	.33	1.0	1.0
Implications for the Field	.52	.46	.78
Compositional			
No. of words in title	.99	1.0	1.0
No. of words in abstract	.99	.99	1.0
Original Form	.95	1.0	1.0
Attachments	.81	1.0	1.0
Presentation	.80	.82	.89
Voice	.71	.78	.86
Jargon	.64	.88	.89
Funding Source	.62	1.0	.72
Flow of the Argument	.62	.80	.78

*.05 < p < .07 (two-tailed test)

T₁-RT₂ = Time One by Recode Time Two

T₁-RT₃ = Time One by Recode Time Three

RT₂-RT₃ = Recode Time Two by Recode Time Three

All 117 correlations in Table 4 are significant at the .05 level (one-tailed test). For a one-tailed test, values greater than .16 in column 1 (i.e., Time 1 by recode Time 2), .37 in column 2 (i.e., Time 1 by recode Time 3) and .37 in column 3 (i.e., recode Time 2 by recode Time 3) are significant at the .05 level. For a two-tailed test, 115 of the correlations are significant at the .05 level. The two remaining correlations (on agency or institution and deductive in the T_1 -RT₃ column) were significant at the .07 but not the .05 level ($.05 < p < .07$). Having regard to the results of this procedure, it was concluded that across time, the instrument and coding process remained relatively stable.

Data Preparation and Analysis

Following the coding of abstracts, the data were transcribed to key-punch forms. The data were then key-punched and verified (100 percent) by keypunch staff at the University of British Columbia Computing Centre. The statistical analyses were completed in two steps. First, the accepted and rejected abstracts were compared on each of the variables separately for each year. The variable means of accepted and rejected abstracts were calculated by using the SPSS subprogram for t-tests using a separate variance estimate. Secondly, discriminant function analyses were employed to obtain combinations of variables which would distinguish between accepted and rejected abstracts.

Discriminant function analysis. Discriminant function analysis is designed to predict group membership (accept/reject). The data consisted of "discriminating" (independent) variables which measured the characteristics on which the groups were expected to differ. Based on these variables,

the discriminant function analysis would determine if the groups differed and "weight and linearly combine the discriminating variables" to force groups to be as statistically distinct as possible (Nie et al., 1975).

Thus, variables were simultaneously analyzed to determine which configuration or combination best distinguished accepted from rejected abstracts.

Based on previous t-test analysis, those variables which distinguished between accepted and rejected abstracts were entered into the discriminant function equation for each year — 1978, 1979, and 1980. In preparation for entry into the 1978 discriminant function equation, the F-value to enter or exit from the equation was set at 2.77 which corresponded to a .01 level of significance. For 1979 and 1980 equations, the corresponding F-values were set at 2.75. As noted below, not all the variables that attained a significant t-value met this criteria.

Results arising from the above data analysis procedures were derived from routines contained in the Statistical Package for the Social Sciences (SPSS). All analyses were done on the AMDAHL computer at the University of British Columbia Computing Centre.

CHAPTER 6

RESULTS

This study was primarily designed to predict acceptance of abstracts submitted to the A.E.R.C. The development of an instrument to code A.E.R.C. abstracts, factors pertaining to coding, and procedures associated with the study were described in the previous two chapters. This chapter identifies variables where the mean scores between accepted and rejected abstracts were significantly different, reports results showing the extent to which abstracts differed (during the three years encompassed by the study), describes correlations between acceptance and the independent variables, and finally, presents results stemming from discriminant function equations used to predict acceptance in 1978, 1979, and 1980.

COMPARISON OF ACCEPTED AND REJECTED ABSTRACTS: BIVARIATE ANALYSIS

Differences between accepted and rejected abstracts on each of the internal variables were examined separately for each of the three years. The results of the associated t-tests are presented in Tables 5, 6, and 7 and are discussed below beginning with 1978.

1978

Table 5 contains the means and S.D.'s for accepted and rejected abstracts for 1978. As shown, accepted abstracts had significantly different (at the .05 level or greater) means on two content, five process, and two compositional variables.

Table 5

Means and S.D.'s of Variables Associated with Accepted
and Rejected A.E.R.C. Abstracts for 1978

Variable	Accept X	Accept S.D.	Reject X	Reject S.D.	t- value	2-tail prob.	d.f.
Content							
Foundations	1.02	.45	1.06	.24	.76		53.35
Characteristics/Adult Learning	1.37	.49	1.24	.43	-1.30		74.09
Agency or Institution	1.07	.26	1.26	.45	2.26	.02	49.87
Programme Planning	1.44	.50	1.47	.51	.25		70.69
Instruction/Techniques	1.21	.41	1.15	.36	-.71		74.22
Adult Education Discipline	1.14	.35	1.12	.33	-.28		72.92
Theoretical/Conceptual	1.28	.25	1.24	.43	-.43		72.49
Archival/Historical	1.00	.0	1.06	.24	1.44		33.00
Empirical/Hard Data	1.70	.47	1.56	.50	-1.24		68.10
Admonitional/Prescriptive	1.02	.15	1.06	.24	.76		53.35
Methodological	1.19	.39	1.00	.0	-3.10	.003	42.00
Process							
No. of direct citations	.30	.56	.57	1.36	1.16		41.90
No. of authors cited	.37	.79	.59	1.08	.28		58.60
Deductive	1.45	.77	1.56	.82	.51		68.47
Inductive	2.16	.75	1.88	.95	-1.41		62.14
State of the Research	4.42	1.69	3.62	1.76	-2.02	.05	69.70
Cumulative Literature	3.16	.72	3.29	.52	.92		74.52
Novelty of Research	1.47	.51	1.21	.41	-2.49	.01	74.93
Research Design	1.86	.74	1.82	.63	-.24		74.66
Data Collection	2.37	1.22	2.18	1.06	-.75		74.27
Instrumentation	2.16	1.31	1.56	.86	-2.44	.01	72.78
Instrument Reliability	1.21	.77	1.06	.34	-1.44		60.72
Instrument Validity	1.14	.64	1.00	.0	-1.43		42.00
Sample or Population	1.95	1.02	1.78	.95	-.71		73.10
Type of Analysis	1.91	1.46	1.71	1.36	.62		72.96
Results	2.67	1.39	2.21	1.34	-1.50		72.04
Conclusions	1.53	1.08	1.65	1.07	.46		71.17
Research Implications	1.47	.88	1.09	.38	-2.52	.01	59.73
Theoretical Implications	1.05	.31	1.06	.34	.16		66.68
Implications for the Field	2.02	1.12	1.35	.65	-3.29	.002	69.10
Compositional							
No. of words in the title	11.77	4.57	11.97	5.08	.18		67.08
No. of words in the abstract	290.19	133.84	260.47	80.16	-1.21		70.34
Original Form	1.95	.21	1.85	.36	-1.44		50.80
Attachments	1.02	.15	1.06	.24	.76		53.35
Presentation	3.42	.73	3.12	.88	-1.60		63.93
Voice	1.65	.48	1.38	.49	-2.40	.01	70.22
Jargon	3.23	.84	3.06	.92	-.86		67.78
Funding Source	1.05	.21	1.06	.24	.24		66.82
Flow of the Argument	3.51	.74	2.91	.86	-3.22	.002	64.85

The two content variables upon which accepted and rejected abstracts differed significantly were methodological ($t=-3.10$, $p < .003$) and agency or institution ($t=2.26$, $p < .02$). Accepted abstracts focused more on methodological research and were less likely to concern agencies than were rejected abstracts.

The first process variable upon which accepted and rejected abstracts differed was implications for the field ($t=-3.29$, $p < .002$). Thus, accepted abstracts were more likely to contain clearly identified statements concerning implications for the field than were rejected studies. Accepted abstracts were also more likely to include implications for further research ($t=-2.52$, $p < .01$) than were rejected studies. Other significant process variables were instrumentation ($t=-2.44$, $p < .01$), novelty of research ($t=-2.49$, $p < .01$), and state of the research ($t=-2.02$, $p < .05$). Accepted abstracts were more likely to clearly describe the instrumentation used, to break new ground or present new ideas, or to summarize studies in advanced phases of the research process than were rejected studies.

Two compositional variables, voice ($t=-2.40$, $p < .01$) and flow of the argument ($t=-3.22$, $p < .002$), distinguished between accepted and rejected abstracts. Accepted abstracts contained a logical argument and were largely written in an active voice. Thus, in 1978 accepted and rejected abstracts differed significantly on nine of the 39 variables.

It is recognized that there is no definitive authority that specifies what should and should not be included in an abstract. Moreover, it is also apparent that there are constraints associated with writing a 250-word abstract. Nevertheless, in view of the fact adult education is often

deemed to be an emerging field of university study (Jensen et al., 1964), it would be instructive to examine the extent to which A.E.R.C. abstracts (accepted and rejected) exemplify the qualities of "good" research. Variable means reveal the extent to which authors identified the nature of their population, instrumentation, data analysis, results, conclusions, and implications.

In general, accepted abstracts (in 1978) had higher mean scores on the nine significant variables than did rejected work. However, on variables largely coded on a four-point scale, even accepted abstracts scored low. These data suggest that even accepted work failed to describe crucial elements of the research process or content.

Abstract Characteristics

Content variables. Content variables were coded dichotomously and a given abstract could be coded "yes" on more than one variable within each of the two content variable classes (adult education focus and methodological orientation). Of the 77 abstracts submitted to A.E.R.C. in 1978, 49 were empirically oriented, 20 had a theoretical/conceptual focus, eight focused on methodological research, three were admonitional/prescriptive, and two had an archival/historical focus. Moreover, 35 abstracts focused on aspects of programme planning, 24 concerned characteristics/adult learning topics, 14 researched problems in instruction/techniques, 12 focused on agency or institutional sponsorship, 10 concerned aspects of the discipline, and three focused on foundations and concepts of adult education. Thus, most abstracts submitted in 1978 focused on the gathering and analysis

of data and concerned problems related to programme planning and/or the adult learner. There was a lack of work on basic concepts, foundations, or meta-research.

Process variables. Most process variables were coded on a four-point scale (1=Not identified, 2=Barely identified, 3=Partially identified, 4=Explicitly identified); most accepted and rejected abstracts had low mean scores on these scales. For example, mean scores on instrumentation (which yielded a significant difference between accepted and rejected abstracts) were low for both accepted ($\bar{X}=2.16$) and rejected ($\bar{X}=1.56$) abstracts. The typical accepted abstract only barely identified the instrumentation used while the typical rejected study did not describe the instrumentation. "Implications for the field" showed similar results (accepted $\bar{X}=2.02$; rejected $\bar{X}=1.35$). Even though there were significant differences between accepted and rejected abstracts, those accepted barely identified implications for the field while rejected studies usually contained no implications statement. Other process variables such as data collection, instrument reliability and validity, results, and conclusions had low mean scores, irrespective of whether or not the abstract was accepted. An examination of the variable state of the research can offer a possible explanation for these low mean scores. Accepted studies were more likely to be in the "analytical phase" ($\bar{X}=4.42$, S.D.=1.69) while rejected abstracts were in the "operational" stage of the research ($\bar{X}=3.62$, S.D.=1.76). The variable cumulative literature indicates that both rejected ($\bar{X}=3.29$, S.D.=.52) and accepted abstracts ($\bar{X}=3.16$, S.D.=.72) were anchored in the literature and both groups of abstracts tended to elaborate old ideas rather than present novel approaches (accepted $\bar{X}=1.47$, S.D.=.51; rejected $\bar{X}=1.21$, S.D.=.41).

Composition variables. Most 1978 abstracts were well composed. The mean number of words for accepted ($\bar{X}=290.19$) and rejected ($\bar{X}=260.47$) abstracts, did not differ significantly. However, both means are higher than the 250-word maximum set by the A.E.R.C. Steering Committee. Abstracts were neatly presented (accepted $\bar{X}=3.42$; S.D.=.73; rejected $\bar{X}=3.12$, S.D.=.88) and used a minimum of dysfunctional jargon (accepted $\bar{X}=3.23$, S.D.=.84; rejected $\bar{X}=3.06$, S.D.=.92). Accepted abstracts were more likely to be written in an active voice ($\bar{X}=1.65$, S.D.=.48) while rejected studies tended to be in a passive voice ($\bar{X}=1.38$, S.D.=.49). Accepted abstracts presented a logical argument ($\bar{X}=3.51$) while rejected studies were less clear ($\bar{X}=2.91$). As previously discussed, the latter two variables distinguished between accepted and rejected abstracts ($p < .01$).

1979

Table 6 summarizes the means, S.D.'s, and t-test values for accepted and rejected abstracts for 1979. Accepted abstracts had significantly different means on three content and one process variables. There were no significant differences on compositional variables. These results differ from those of 1978.

The content variables which showed significant differences between accepted and rejected abstracts were methodological ($t=-2.13$, $p < .03$), agency or institution ($t=2.05$, $p < .04$), and programme planning ($t=-1.98$, $p < .05$). As in 1978, accepted studies were more likely to focus on methodological research and less likely to concern agencies than were rejected abstracts. In 1979 accepted work was also more likely to focus on programme planning than were rejected abstracts.

Table 6
Means and S.D.'s of Variables Associated with Accepted
and Rejected A.E.R.C. Abstracts for 1979

Variable	Accept X	Accept S.D.	Reject X.	Reject S.D.	t- value	2-tail prob.	d.f.
Content							
Foundations	1.11	.31	1.05	.23	-.95		50.29
Characteristics/Adult Learning	1.22	.42	1.31	.46	1.04		70.83
Agency or Institution	1.11	.32	1.26	.43	2.05	.04	88.21
Programme Planning	1.58	.50	1.39	.49	-1.98	.05	63.40
Instruction/Techniques	1.11	.31	1.16	.38	.84		75.35
Adult Education Discipline	1.08	.28	1.12	.32	.67		75.30
Theoretical/Conceptual	1.28	.45	1.32	.47	.49		66.58
Archival/Historical	1.03	.17	1.02	.15	-.17		58.35
Empirical/Hard Data	1.58	.50	1.56	.50	-.28		64.50
Admonitional/Prescriptive	1.02	.17	1.04	.21	.47		79.69
Methodological	1.19	.40	1.04	.21	-2.13	.03	42.67
Process							
No. of direct citations	.72	1.60	.60	1.39	-.40		57.32
No. of authors cited	.77	1.59	.62	1.43	-.51		58.85
Deductive	1.50	.76	1.43	.75	-.44		62.72
Inductive	2.11	.85	1.80	.72	-1.93	.059	56.05
State of the Research	3.66	1.83	3.62	1.77	-.12		62.30
Cumulative Literature	2.80	.75	3.12	.64	2.25	.02	54.85
Novelty of Research	1.44	.50	1.26	.44	-1.97	.054	57.35
Research Design	1.86	.68	1.67	.61	-1.48		59.22
Data Collection	2.25	1.18	2.12	1.06	-.56		59.70
Instrumentation	1.83	1.13	1.66	1.05	-.81		60.39
Instrument Reliability	1.28	.81	1.04	.25	-1.69		37.79
Instrument Validity	1.17	.70	1.01	.10	-1.33		35.64
Sample or Population	1.97	1.08	1.64	.78	-1.65		50.35
Type of Analysis	1.83	1.47	1.74	1.34	-.35		60.03
Results	1.94	1.21	2.11	1.33	.67		70.41
Conclusions	1.61	.99	1.47	.96	-.69		62.73
Research Implications	1.33	.63	1.26	.63	-.53		66.18
Theoretical Implications	1.08	.73	1.04	.20	-.60		44.14
Implications for the Field	1.72	.91	1.69	.90	-.19		64.14
Compositional							
No. of words in the title	10.94	4.45	11.51	4.38	.65		63.46
No. of words in the abstract	259.0	50.82	255.71	76.55	-.28		96.18
Original Form	1.94	.23	1.89	.32	-1.09		87.20
Attachments	1.05	.23	1.00	1.00	-1.43		35.00
Presentation	3.33	.79	3.14	.83	-1.19		67.23
Voice	1.53	.51	1.58	.50	.50		63.43
Jargon	3.14	.90	3.11	.93	-.16		66.52
Funding Source	1.06	.23	1.06	.23	.0		64.05
Flow of the Argument	3.61	.65	3.38	.75	-1.91		74.95

The process variable upon which accepted and rejected abstracts differed significantly was cumulative literature ($t=2.25$, $p < .02$). Inductive ($t=-1.93$, $p < .059$) and novelty of research ($t=-1.97$, $p < .054$) barely failed to attain significance at the .05 level. However, they are noted here and were subsequently entered in the 1979 discriminant function equation because, when working conjointly with other variables (in interaction), they could have a more powerful effect. (The validity of this reasoning was subsequently reinforced when inductive entered during the second step of the 1979 discriminant function equation — see p. 97). Thus, accepted abstracts had a more clearly defined inductive theoretical development than rejected abstracts. As well, they were less anchored in the literature than were rejected abstracts and more likely to present a novel approach than to elaborate on old ideas.

Thus, of the 39 variables, six significantly differentiated (at the .059 level) between accepted and rejected abstracts. As for 1978, variable means of accepted abstracts were generally low.

Abstract Characteristics

Content variables. Content variables focused on methodological orientations and adult education processes. Frequency counts for 1979 show that of the 126 abstracts submitted, 71 had an empirical research focus. Thirty-nine abstracts had a theoretical/conceptual focus, 11 were oriented towards methodological research, five had an admonitional or prescriptive tone, and two were primarily archival/historical research. With regard to the adult education focus, a frequency count revealed that 56 abstracts focused on issues related to programme planning, while 36 described research concerning adult learners and learning. Twenty-seven abstracts focused on

agencies, 19 dealt with instruction, 14 concerned the discipline, and nine were related to foundations. As in 1978, most abstracts were empirically oriented and concerned problems stemming from programme planning and the nature of the adult learner.

Process variables. Only three process variables significantly distinguished between accepted and rejected abstracts. Accepted abstracts ($\bar{X}=2.80$, S.D.=.75) were only slightly less anchored in the literature than were rejected studies ($\bar{X}=3.12$, S.D.=.64). Accepted abstracts were also more likely to present novel approaches to research (accepted $\bar{X}=1.44$, S.D.=.50; rejected $\bar{X}=1.26$, S.D.=.44). A frequency count for 1979 abstracts shows that of the 126 abstracts submitted, 39 were considered to break new ground while 87 were an elaboration of old ideas. Further examination reveals low mean scores on most process variables. With the exception of data collection (accepted $\bar{X}=2.25$, S.D.=1.18, rejected $\bar{X}=2.12$, S.D.=1.06) which shows that abstracts barely identified these procedures, other variable mean scores largely fell within the not identified category. For example, instrumentation (accepted $\bar{X}=1.83$, S.D.=1.13; rejected $\bar{X}=1.66$, S.D.=1.05), sample or population (accepted $\bar{X}=1.97$, S.D.=1.08, rejected $\bar{X}=1.64$, S.D.=.78), and conclusions (accepted $\bar{X}=1.61$, S.D.=.99; rejected $\bar{X}=1.47$, S.D.=.96) were not identified in the average abstract submitted in 1979. As indicated by state of the research, accepted ($\bar{X}=3.66$, S.D.=1.83) and rejected ($\bar{X}=3.62$, S.D.=1.77) abstracts were primarily in the operational phase of the research process. This could account for the incomplete description of data analysis, results, conclusions, or implications. However, variables related to the operational phase such as data collection, instrumentation, and sample or population were also incompletely described.

Compositional variables. For 1979, no compositional variables significantly distinguished between accepted and rejected abstracts. Most abstracts were well composed. The typical abstract (accepted $\bar{X}=259$; rejected $\bar{X}=255$) generally approximated the 250 words limit set by the Steering Committee. As well, abstracts were neatly presented (accepted $\bar{X}=3.33$, S.D.=.79; rejected $\bar{X}=3.11$, S.D.=.93) and had a logical flow to the argument (accepted $\bar{X}=3.61$, S.D.=.65; rejected $\bar{X}=3.38$, S.D.=.75).

1980

Table 7 shows accepted and rejected means and S.D.'s for 1980 abstracts. Accepted abstracts had significantly different means on three content, five process, and one compositional variable. These results show a different pattern from those of the previous two years.

The accepted and rejected means on three content variables: foundations ($t=-2.87$, $p < .006$), instruction/techniques ($t=2.41$, $p < .03$), and characteristics/adult learning ($t=-2.09$, $p < .04$) were significantly different. For 1980, accepted abstracts were more likely to focus on research related to adult characteristics, learning and foundations than rejected work. Rejected abstracts were more likely to focus on problems of instruction than were accepted studies.

The process variable, data collection, significantly distinguished between accepted and rejected abstracts ($t=-3.19$, $p < .002$). Accepted abstracts were more likely to report data collection procedures than were rejected studies. Other significant process variables were type of analysis ($t=-2.55$, $p < .01$), instrumentation ($t=-2.23$, $p < .02$), sample or population ($t=-2.13$, $p < .03$), and inductive ($t=-2.03$, $p < .04$). Thus, accepted abstracts were those which used higher-order data analysis (e.g.,

Table 7
Means and S.D.'s of Variables Associated with Accepted
and Rejected A.E.R.C. Abstracts for 1980

Variable	Accept X	Accept S.D.	Reject X	Reject S.D.	t- value	2-tail prob.	d.f.
Content							
Foundations	1.23	.43	1.04	.19	-2.87	.006	50.56
Characteristics/Adult Learning	1.44	.50	1.25	.44	-2.09	.04	75.49
Agency or Institution	1.16	.37	1.20	.41	.58		91.58
Programme Planning	1.40	.50	1.42	.50	.28		85.41
Instruction/Techniques	1.12	.32	1.27	.44	2.41	.03	110.03
Adult Education Discipline	1.14	.35	1.17	.38	.43		90.66
Theoretical/Conceptual	1.19	.39	1.30	.46	1.47		97.72
Archival/Historical	1.09	.29	1.02	.15	-1.44		54.28
Empirical/Hard Data	1.72	.45	1.60	.49	-1.35		91.42
Admonitional/Prescriptive	1.05	.21	1.05	.21	.04		85.94
Methodological	1.12	.32	1.03	.18	-1.50		56.97
Process							
No. of direct citations	.74	1.24	.56	1.20	-.83		83.03
No. of authors cited	1.16	2.50	.59	1.56	-1.37		59.50
Deductive	1.67	.97	1.48	.71	-1.15		65.64
Inductive	2.11	.82	1.82	.68	-2.03	.04	72.64
State of the Research	4.05	1.38	3.78	1.70	-.94		101.67
Cumulative Literature	3.23	.75	3.27	.68	.24		78.28
Novelty of Research	1.33	.47	1.20	.41	-1.42		74.47
Research Design	1.98	.56	1.84	.65	-1.20		97.89
Data Collection	2.56	.96	1.84	.65	-3.19	.002	88.29
Instrumentation	2.12	1.22	1.64	.97	-2.23	.02	70.20
Instrument Reliability	1.07	.34	1.07	.38	.04		93.41
Instrument Validity	1.23	.72	1.07	.35	-1.37		54.18
Sample or Population	1.98	.74	1.67	.68	-2.13	.03	80.79
Type of Analysis	2.30	1.68	1.57	1.21	-2.55	.01	65.16
Results	2.40	1.28	2.17	1.38	-.92		91.10
Conclusions	1.63	1.09	1.60	1.10	-.12		85.92
Research Implications	1.26	.54	1.25	.54	-.03		84.93
Theoretical Implications	1.12	.39	1.08	.38	-.44		84.73
Implications for the Field	1.72	.85	1.71	.94	-.06		92.90
Compositional							
No. of words in the title	11.05	3.63	11.94	5.02	1.14		110.70
No. of words in the abstract	294.42	83.58	269.82	80.67	-1.59		82.49
Original Form	1.98	.15	1.90	.29	-1.83		124.00
Attachments	1.0	.0	1.0	.0	.0		.0
Presentation	3.09	.90	3.18	.91	.52		86.58
Voice	1.47	.51	1.54	.50	.81		84.58
Jargon	2.70	1.17	3.24	.98	2.61	.01	73.51
Funding Source	1.09	.29	1.06	.24	-.63		71.50
Flow of the Argument	3.13	.77	3.20	.92	.42		98.92

multivariate), clearly identified the instrumentation, sample/population, and had an inductive theory.

The single compositional variable which differentiated between accepted and rejected abstracts was jargon ($t=2.61$, $p < .01$). Surprisingly, accepted abstracts used significantly more dysfunctional jargon than did rejected studies.

For 1980, only nine of the 39 variables significantly differentiated accepted from rejected abstracts. An examination of means and S.D.'s for all variables shows a pattern similar to the previous years; accepted and rejected abstracts generally have low mean scores.

Abstract Characteristics

Content variables. The three content variables with significantly different "accept" and "reject" means were related to aspects of adult education. Of the 126 abstracts submitted, 40 focused on characteristics of the adult learner, 52 concerned programme planning, 27 studied instruction, 24 were devoted to agencies, 20 with the discipline, while 13 concerned foundations. As in previous years, the primary methodological orientation of abstracts was towards empirical research. Eighty-one abstracts focused on the gathering and analysis of data, while 33 were theoretically/conceptually oriented, eight focused on methodological research, six were admonitional or prescriptive, and six reported archival or historical research. Thus, most abstracts submitted in 1980 were empirical and related to programme planning, characteristics of adult learners, and learning.

Process variables. An examination of process variable means showed that the typical accepted ($\bar{X}=2.56$, S.D.=.96) and rejected abstract ($\bar{X}=1.84$, S.D.=.65) did not completely identify data collection procedures. The same result applied to instrumentation (accepted $\bar{X}=2.12$, S.D.=1.22; rejected $\bar{X}=1.64$, S.D.=.97). Accepted abstracts mentioned the use of data analysis, though the type was usually unclear (accepted $\bar{X}=2.30$, S.D.=1.68); rejected studies generally failed to describe analysis procedures. Both accepted ($\bar{X}=3.23$, S.D.=.75) and rejected abstracts ($\bar{X}=3.27$, S.D.=.68) were largely anchored in the literature and tended to elaborate old ideas. Only 31 of 126 abstracts submitted in 1980 employed novel approaches to the research problem. Abstracts were neither clearly deductive (accepted $\bar{X}=1.67$, S.D.=.97; rejected $\bar{X}=1.48$, S.D.=.71) nor inductive (accepted $\bar{X}=2.11$, S.D.=.82; rejected $\bar{X}=1.82$, S.D.=.68). As in previous years, variables related to research processes were incompletely identified (e.g., sample or population accepted $\bar{X}=1.98$, S.D.=.74; rejected $\bar{X}=1.67$, S.D.=.68), even though most studies were in the analysis (accepted $\bar{X}=4.05$, S.D.=1.38) or operational phases (rejected $\bar{X}=3.78$, S.D.=1.70).

Compositional variables. As noted, jargon was the compositional variable which significantly differentiated between accepted and rejected abstracts. But the direction of the result was surprising. This variable was coded as 1=Extensive, 2=Moderate, 3=Rare, 4=None. Accepted abstracts ($\bar{X}=2.70$, S.D.=1.17) used moderate amounts of jargon, while rejected studies ($\bar{X}=3.24$, S.D.=.98) used significantly less ($p < .05$). On other compositional variables, however, 1980 abstracts reflected normal patterns. Accepted and rejected abstracts were neatly presented (accepted $\bar{X}=3.09$, S.D.=.90; rejected $\bar{X}=3.18$, S.D.=.91) and had a moderately clear argument and logical

flow (accepted $\bar{X}=3.13$, S.D.=.77; rejected $\bar{X}=3.20$, S.D.=.92). Note, however, that although differences were minimal, rejected abstracts were coded slightly higher than accepted studies on these variables. With regard to the number of words, accepted ($\bar{X}=292.42$) and rejected abstracts ($\bar{X}=269.82$) both contained more than the suggested 250 words.

Consistency Over Three Years

Results presented above described variables upon which accepted and rejected abstracts had significantly different mean scores. It is useful to examine the extent to which the independent variables consistently differentiated between accepted and rejected across the three years. Table 8 lists variables that significantly differentiated between accepted and rejected abstracts during at least one of the years. Only 19 of the 39 variables appear in the table. Of the 39, none differentiated between accepted and rejected abstracts in all years of the study — 1978, 1979, and 1980. Of the 19 variables, only five significantly differentiated between accepted and rejected abstracts for more than one year. The two content variables were methodological (1978, 1979) and agency or institution (1978, 1979). Inductive (1979, 1980), novelty of research (1978, 1979), and instrumentation (1978, 1980) were process variables. All compositional and the remaining process and content variables differentiated between accepted and rejected abstracts in only one of the three years.

Table 8

Extent to Which the Mean Content, Process, and Compositional Scores of Accepted and Rejected A.E.R.C. Abstracts were Significantly Different in 1978, 1979, 1980*

Variable	Year		
	1978	1979	1980
Content			
Foundations			Yes
Characteristics/Adult Learning			Yes
Agency or Institution	Yes	Yes	
Programme Planning		Yes	
Instruction/Techniques			Yes
Methodological	Yes	Yes	
Process			
Inductive		Yes	Yes
State of the Research	Yes		
Cumulative Literature		Yes	
Novelty of Research	Yes	Yes	
Data Collection			Yes
Instrumentation	Yes		Yes
Sample or Population			Yes
Type of Analysis			Yes
Research Implications	Yes		
Implications for the Field	Yes		
Compositional			
Voice	Yes		
Jargon			Yes
Flow of the Argument	Yes		

* $p < .059$

The inconsistent effects of the variables suggests either that the characteristics of abstracts submitted in different years vary greatly or judges regard the variables with varying degrees of importance. The extent to which differences between means of accepted and rejected abstracts stem from actual differences in the characteristics of abstracts submitted each year was examined by calculating and comparing variable means for all abstracts.

Characteristics of All Abstracts by Year

The combined variable means for all abstracts submitted in 1978, 1979, and 1980 are reported in Table 9 together with F-values and associated probability levels computed to test for differences among the years. It is clear that abstracts submitted during the three years of the study had essentially the same characteristics. The one-way analyses of variance shown in Table 9 produced only two significant values for the variables cumulative literature and flow of the argument.

Thus, the fact variables like methodological were associated with acceptance in 1978 and 1979 but not 1980 apparently did not happen because of the difference in the qualities of abstracts across the three years. It is likely that judges assigned a different weight to this and other variables in the years examined in the present study. As noted in Chapter 7, this has implications for the A.E.R.C. judging process.

COMPARISON OF ACCEPTED AND REJECTED ABSTRACTS: DISCRIMINANT FUNCTION ANALYSIS

The previous discussion demonstrated that, for some variables, the means of accepted and rejected abstracts differed from one another within each of the years encompassed by the study. But, as noted in the previous section, the characteristics of the abstracts (accepted and rejected) were largely the same across the three years.

Table 9
Variable Means for all Abstracts Submitted to
A.E.R.C. in 1978, 1979, 1980

Variable	1978 X	1979 X	1980 X	F.	Sig.
Content					
Foundations	1.04	1.07	1.10	2.38	.09
Characteristics/Adult Learning	1.31	1.29	1.32	.12	.88
Agency or Institution	1.16	1.21	1.19	.11	.88
Programme Planning	1.45	1.44	1.41	.17	.84
Instruction/Techniques	1.18	1.15	1.21	.98	.37
Adult Education Discipline	1.13	1.11	1.16	.63	.53
Theoretical/Conceptual	1.26	1.31	1.26	.33	.71
Archival/Historical	1.03	1.02	1.05	.67	.51
Empirical/Hard Data	1.64	1.56	1.64	.73	.47
Admonitional/Prescriptive	1.04	1.04	1.05	.06	.94
Methodological	1.10	1.09	1.06	.42	.65
Process					
No. of direct citations	.43	.63	.62	.77	.46
No. of authors cited	.47	.67	.79	1.27	.28
Deductive	1.51	1.45	1.55	.43	.64
Inductive	2.04	1.89	1.92	.18	.82
State of the Research	4.06	3.63	3.87	1.03	.35
Cumulative Literature	3.22	3.03	3.25	4.51	.01*
Novelty of Research	1.35	1.31	1.25	.96	.38
Research Design	1.84	1.72	1.89	1.92	.14
Data Collection	2.29	2.16	2.17	.04	.96
Instrumentation	1.90	1.71	1.80	.18	.83
Instrument Reliability	1.14	1.11	1.07	.35	.70
Instrument Validity	1.08	1.06	1.13	.94	.39
Sample or Population	1.88	1.74	1.79	.16	.84
Type of Analysis	1.82	1.76	1.82	.07	.92
Results	2.47	2.06	2.25	1.7	.18
Conclusions	1.58	1.52	1.61	.25	.77
Research Implications	1.30	1.29	1.25	.12	.88
Theoretical Implications	1.05	1.06	1.10	.65	.52
Implications for the Field	1.73	1.70	1.71	.02	.97
Compositional					
No. of words in the title	11.86	11.35	11.63	.50	.60
No. of words in the abstract	277.06	256.65	278.21	1.87	.15
Original Form	1.91	1.90	1.93	.40	.67
Attachments	1.04	1.02	1.00	2.15	.11
Presentation	3.29	3.20	3.15	.40	.60
Voice	1.53	1.56	1.52	.31	.72
Jargon	3.16	3.12	3.06	.45	.63
Funding Source	1.05	1.06	1.07	.22	.80
Flow of the Argument	3.25	3.43	3.18	3.79	.02*

* $p < .05$

These preliminary analyses suggested that variables associated with acceptance did not have a consistent effect over several years. To further clarify this situation, a discriminant function analysis was performed for each year. The following sections of this chapter discuss the results of this analysis separately for 1978, 1979, and 1980. The correlation matrix among variables (for each year) is discussed first, followed by the presentation of results derived from the discriminant function equation.

1978

Correlation matrix. The correlation matrix for 1978 is presented in Appendix 3. As expected (given the results reported in Table 5), nine of the 39 variables were significantly correlated with acceptance. Abstracts concerning methodologically oriented research were more likely to be accepted than other types ($r=.30$, $p < .01$); abstracts focusing on agencies or institutions were more likely to be rejected than abstracts on other adult education topics ($r=-.27$, $p < .05$); research in advanced states was more likely to be accepted than research in preliminary states ($r=.23$, $p < .05$); novel research was more likely to be accepted than "old-hat" research ($r=.27$, $p < .05$); abstracts with clearly defined instrumentation were more likely to be accepted than those with little or no description of instruments used ($r=.26$, $p < .05$); abstracts which contained statements concerning implications for research and/or the field of practice were more likely to be accepted than those which did not ($r=.26$, $p < .05$; $r=.34$, $p < .01$); abstracts written in an active rather than a passive voice were more likely to be accepted ($r=.27$, $p < .05$); and abstracts making an argument that flowed logically were more likely to be accepted than illogical work ($r=.35$, $p < .01$).

Of the 39 variables, nine were significantly correlated with acceptance. The strongest association was between flow of the argument and acceptance ($r=.35$). However, many variables were correlated with others in the matrix. For example, state of the research was significantly correlated ($p < .05$) with 11 other variables.⁴

The variables with the greatest number of inter-correlations were state of the research (with 11 significant correlations); empirical/hard data (with 10 significant correlations); accept/reject (with nine significant correlations); theoretical/conceptual (with eight significant correlations); and jargon and inductive (each with seven significant correlations).

Discriminant function analysis. Table 5 shows that rejected and accepted abstracts differed significantly on two of the eleven content, five of the 19 process, and two of the nine compositional variables. These nine variables were: agency or institution, methodological, state of the research, novelty of research, instrumentation, research implications, implications for the field, voice and flow of the argument. These were the variables considered in the discriminant function analysis. As noted in Table 10, only six emerged in the equation resulting from the discriminant function analysis. Thus, three of the variables which yielded significant t -values between accepted and rejected abstracts were not accepted. This is attributed to the fact that, after partialling out that proportion of

⁴This figure was determined by counting only correlations on the underside of the matrix diagonal. Thus, a correlation, at .22 or above, between state of the research and sample or its reciprocal, sample and state of the research was counted only once. This procedure also excluded correlations in the diagonal. Their value was set at .22 ($p < .05$) for the 1978 correlation matrix while the r value for 1979 and 1980 matrices was set at .17 ($p < .05$).

their variances accounted for by the entered variables, much of their individual power was lost. Though there were significant differences between accepted and rejected abstracts on state of the research, novelty of research, and research implications, their individual differences were diminished when combined with other variables in the discriminant function analysis. This is supported by the variable inter-correlations discussed on page 90 and shown in Appendix 3. State of the research was significantly correlated with 14 other variables; novelty of research was significantly correlated with three other variables (one of which was agency or institution ($r=-.24$); and research implications were significantly correlated with two other variables (one of which was flow of the argument ($r=.26$)).

Table 10 lists the variables in their order of entry into the equation, the initial F-value of the variable before entry into the equation, and the standardized discriminant function coefficient resulting from the analysis. These coefficients are comparable to beta weights in a regression equation and indicate the extent to which each variable has an effect (when "working" with the other variables). The larger the coefficient, the more powerful the effect.

The first variable to enter the equation was flow of the argument followed by voice; both concerned compositional elements of the abstract. Agency or institution and methodological, which entered the equation at steps three and five, respectively, concerned abstract content. Two process variables, implications for the field and instrumentation, entered at steps four and six. As indicated by the discriminant function coefficient, voice (.53) was the most powerful variable when working together with the other five. The strong negative coefficient (-.44) for agency indicates that A.E.R.C.

judges reacted unfavourably towards abstracts concerned with agencies. However, judges responded positively toward studies which focused on methodological research (.40). The variables flow of the argument (.38), implications for the field (.38), and instrumentation (.35) also strongly contributed to abstract acceptance. Thus, abstracts which presented a logical argument, clearly described implications for the field of practice, or which identified research instrumentation were also favoured by the 1978 judges.

TABLE 10
INTERACTIVE EFFECTS OF VARIABLES ASSOCIATED WITH
ACCEPTANCE OF A.E.R.C. ABSTRACTS FOR 1978

Variable	Step Entered	Wilk's Lambda	Initial Univariate F-value	Standardized Discriminant Function Coefficient
Flow of the Argument	1	.87	10.79	.38
Voice	2	.80	5.78	.53
Agency or Institution	3	.73	5.75	-.44
Implications for the Field	4	.69	9.58	.38
Methodological	5	.65	7.57	.40
Instrumentation	6	.62	5.39	.35

Canonical Correlation = .61

Based on the combined or interactive effects of the above variables, it is possible to construct a brief profile of abstracts accepted for the 1978 conference.

<u>Accepted abstracts</u>	<u>Rejected abstracts</u>
- were clearly and logically written	- were not clearly and logically written
- were primarily written in an active voice	- were primarily written in a passive voice
- did not focus on agency or institutional sponsorship	- were focused on agency or institutional sponsorship
- contained statements concerning implications for the field	- did not contain statements concerning implications for the field
- were oriented towards the use of a particular research methodology	- were not methodologically oriented
- had clearly identified instrumentation	- did not have clearly identified instrumentation

As indicated by the canonical correlation (.61), the variable configuration described above accounted for approximately 60 percent of the variance in acceptance in 1978. The discriminant function was able to correctly classify 81.8 percent of the studies submitted (Table 11).

TABLE 11

PERCENTAGE OF 1978 A.E.R.C. ABSTRACTS CORRECTLY ASSIGNED TO
ACCEPT AND REJECT GROUPS BY DISCRIMINANT FUNCTION ANALYSIS

Group	No. of Cases	Predicted Group Membership	
		Reject	Accept
Reject	34	30	4
		88.2%	11.8%
Accept	43	10	33
		23.3%	76.7%

Percent of "grouped" cases correctly classified: 81.8%

Of the 43 accepted abstracts, the equation correctly classified 33 (76.6 percent); 10 (23.3 percent) were incorrectly classified. That year, A.E.R.C. judges rejected 34 abstracts; the equation correctly assigned 30 (88.2 percent) to this category, while four (11.8 percent) were incorrectly classified.

1979

Correlation matrix. The correlation matrix for 1979 is presented in Appendix 4. Nine of the 39 variables were significantly correlated ($p < .05$) with acceptance in 1979. Abstracts which focused on programme planning concerns were more likely to be accepted than any other adult education topic ($r=.18$, $p < .05$); methodologically oriented research was more likely to be accepted than other types ($r=.24$, $p < .01$); inductive research was more inclined to be accepted than research not thus characterized ($r=.18$, $p < .05$); abstracts which were less well anchored in the literature were more likely to be accepted than those well-anchored ($r=.21$, $p < .05$); abstracts presenting novel approaches to research were more likely to be accepted than those elaborating on old ideas ($r=.18$, $p < .05$); abstracts which described instrument reliability and/or validity procedures were more likely to be accepted than those which contained no such information ($r=.21$, $p < .05$); $r=.18$, $p < .05$); abstracts which clearly described the sample or population were more likely to be accepted than those which did not ($r=.17$, $p < .05$); and abstracts with attachments were more likely to be accepted than those on a single sheet ($r=.20$, $p < .05$).

As in the previous year, many variables were significantly correlated with others in the matrix ($|r| > .17$, $p < .05$). Variables with the greatest number of inter-correlations included: empirical/hard data (with 14

significant correlations); jargon and theoretical/conceptual (with 10 significant correlations); accept/reject and number of words in the abstract (with nine significant correlations); and state of the research and instrumentation (with eight significant correlations). Twenty-eight were significantly correlated with between one and six variables.

Discriminant function analysis. As shown in Table 6, four variables: programme planning, agency or institution, methodological, and cumulative literature differentiated between accepted and rejected abstracts. However, (as noted on p. 81) it was decided to also include the variables inductive and novelty of research. Table 12 shows that five of these variables entered the discriminant function equation for 1979.

TABLE 12
INTERACTIVE EFFECTS OF VARIABLES ASSOCIATED WITH
ACCEPTANCE OF A.E.R.C. ABSTRACTS FOR 1979

Variable	Step Entered	Wilk's Lambda	Initial Univariate F-value	Standardized Discriminant Function Coefficient
Methodological	1	.94	7.58	.50
Inductive	2	.90	4.29	.36
Cumulative Literature	3	.87	6.00	-.54
Programme Planning	4	.84	4.00	.48
Agency or Institution	5	.82	3.22	-.38

Canonical Correlation = .42

Methodological, a content variable, entered the equation at step one. Two process variables, inductive and cumulative literature followed at steps two and three. Programme planning and agency, which entered at steps four and five, also focused on abstract content. No compositional variables appeared in this equation.

Of these variables, cumulative literature had the most powerful separate effect. The discriminant function coefficient was negative (-.54) and indicated that judges were inclined to reject rather than accept abstracts which were well anchored in the literature. "Agency or institution" also had a negative effect (-.38). Thus, judges reacted unfavourably towards abstracts focusing on agency or institutional sponsorship. The remaining variables — methodological (.50), programme planning (.48), and inductive (.36) — were positively related to acceptance. Abstracts which focused on methodological research or aspects of programme planning and those employing inductive theory were more inclined to be accepted than those which did not manifest these qualities. A discriminant function profile of 1979 accepted and rejected abstracts shows the following:

<u>Accepted abstracts</u>	<u>Rejected abstracts</u>
- were oriented towards the use of a particular research methodology	- were not methodologically oriented
- had a clearly defined inductive theoretical development	- did not have or had a vague inductive theoretical development
- had a literature base which was "not at all" or "slightly" cumulative	- had a literature base which was "moderately" or "extremely" cumulative
- focused on programme planning issues or topics	- did not focus on programme planning
- did not focus on agency or institutional sponsors of programmes	- focused on agency or institutional sponsors

As indicated by the canonical correlation (.42), these five variables accounted for 42 percent of the variance. Based on this variable configuration, the discriminant function equation was able to correctly classify 71.43 percent of the abstracts (Table 13).

TABLE 13

PERCENTAGE OF 1979 A.E.R.C. ABSTRACTS CORRECTLY ASSIGNED
TO ACCEPT AND REJECT GROUPS BY DISCRIMINANT FUNCTION ANALYSIS

Group	No. of Cases	Predicted Group Membership	
		Reject	Accept
Reject	90	68	22
		75.6%	24.4%
Accept	36	14	22
		38.9%	61.6%

Percent of "grouped" cases correctly classified: 71.4%

In 1979, A.E.R.C. judges accepted 36 and rejected 90 abstracts. The discriminant function equation correctly classified 68 (75.6 percent) and misclassified 22 (24.4 percent) of rejected abstracts. It correctly classified 22 (61.1 percent) and falsely classified 14 (38.9 percent) accepted abstracts.

1980

Correlation matrix. The correlation matrix for 1980 appears in Appendix 5. As in the previous two years, nine variables were significantly correlated with acceptance. Abstracts focusing on foundations and characteristics of adult learners or learning were more likely to be accepted than

those concerned with other adult education topics ($r=.31$, $p < .01$; $r=.19$, $p < .05$); research concerned with instruction or techniques was more likely to be rejected than accepted ($r=-.17$, $p < .05$); inductive research was more inclined to be accepted than research not thus characterized ($r=.19$, $p < .05$); if data collection procedures were clearly described, abstracts were more likely to be accepted than if procedures were not clearly specified ($r=.27$, $p < .01$); abstracts that described procedures pertaining to instrumentation ($r=.21$, $p < .05$), the nature of the sample or population ($r=.19$, $p < .05$), and the type of analysis ($r=.25$, $p < .01$) were more likely to be accepted than those which omitted this information; abstracts which used dysfunctional jargon were more inclined to be accepted than those which used no dysfunctional jargon ($r=-.24$, $p < .01$).

Many variables were significantly correlated with others in the matrix ($|r| > .17$, $p < .05$). Variables with the greatest number of inter-correlations included: empirical/hard data (with 12 significant correlations); theoretical/conceptual (with 10 significant correlations); accept/reject and state of the research (with nine significant correlations); jargon, archival/historical, and data collection (with eight significant correlations); and number of words in the abstract, flow of the argument and research design (with seven significant correlations).

Discriminant function analysis. The pattern of variables associated with acceptance in 1980 was different from the previous years (Table 14). As previously described, the means on nine variables: foundations, characteristics/adult learning, instruction/techniques, inductive, data collection, instrument reliability, type of analysis, results, and jargon were significantly different when accepted and rejected abstracts were compared (Table 7). Of these variables, only five were retained in the discriminant function equation.

TABLE 14
INTERACTIVE EFFECTS OF VARIABLES ASSOCIATED WITH
ACCEPTANCE OF A.E.R.C. ABSTRACTS FOR 1980

Variable	Step Entered	Wilk's Lambda	Initial Univariate F-value	Standardized Discriminant Function Coefficient
Foundations	1	.91	12.82	.58
Characteristics/Adult Learning	2	.85	4.76	.35
Jargon	3	.80	7.61	-.60
Type of Analysis	4	.78	7.95	.38
Data Collection	5	.74	9.88	.33

Canonical Correlation = .51

Foundations and characteristics/adult learning, the first two variables to enter the equation, focused on abstract content. A compositional variable, jargon, entered at step three followed by type of analysis and data collection which related to research processes.

Examination of the discriminant function coefficient shows that jargon (-.60) had the single most powerful effect on acceptance. The effect was negative; accepted abstracts used unnecessary dysfunctional jargon. The variable with the second most powerful coefficient was foundations (.58); thus, accepted abstracts were more inclined to focus on issues related to foundations of adult education. The other three variables, characteristics/adult learning (.35), type of analysis (.38), and data collection (.33) were also positively associated with acceptance. A discriminant function profile of 1980 accepted and rejected abstracts shows the following:

<u>Accepted Abstracts</u>	<u>Rejected Abstracts</u>
- focused on foundations of adult education	- did not focus on foundations
- focused on issues related to characteristics and adult learning	- did not focus on issues related to characteristics and adult learning
- used unnecessary or dysfunctional jargon	- used only minimal or no jargon
- used higher order (e.g., multi-variate) analysis	- used lower order (e.g., univariate, unclear) or no analysis
- clearly identified data collection procedures	- did not clearly identify data collection procedures

As indicated by the canonical correlation (.51), these five variables accounted for 51 percent of the variance in acceptance. Based on the variable configuration described above, the discriminant function equation was able to correctly classify 78.6 percent of the 1980 abstracts (Table 15).

TABLE 15

PERCENTAGE OF 1980 A.E.R.C. ABSTRACTS CORRECTLY ASSIGNED TO
ACCEPT AND REJECT GROUPS BY DISCRIMINANT FUNCTION ANALYSIS

Group	No. of Cases	Predicted Group Membership	
		Reject	Accept
Reject	83	67	16
		80.7%	19.3%
Accept	43	11	32
		25.6%	74.4%

Percent of "grouped" cases correctly classified: 78.6%

A.E.R.C. judges accepted 43 and rejected 83 abstracts. The discriminant function equation correctly classified 67 (80.7 percent) and mis-classified 16 (19.3 percent) of rejected abstracts. It correctly classified 32 (74.4 percent) and falsely classified 11 (25.6 percent) of accepted abstracts.

Summary

As shown in Tables 10, 12, and 14, different variables combined in their association with acceptance. Thus, in 1978 instrumentation and implications for the field were important but in 1979 and 1980 they did not enter the equations. In 1979 compositional variables were not associated with acceptance but in 1978 and 1980 at least one of them entered the equation. These findings are summarized in Table 16. In this table a "yes" means the variables served to discriminate between accepted and rejected abstracts.

Table 16
Content, Process, and Compositional Variables Which Entered Discriminant
Function Equations in 1978, 1979, and 1980

Variable	Year		
	1978	1979	1980
Content			
Foundations			Yes
Characteristics/Adult Learning			Yes
Agency or Institution	Yes	Yes	
Programme Planning		Yes	
Methodological	Yes	Yes	
Process			
Inductive		Yes	
Cumulative Literature		Yes	
Data Collection			Yes
Instrumentation	Yes		
Type of Analysis			Yes
Implications for the Field	Yes		
Compositional			
Voice	Yes		
Jargon			Yes
Flow of the Argument	Yes		

Fourteen of the original 39 variables were sufficiently associated with acceptance to be entered into at least one of the discriminant function equations. Only two variables, methodological and agency or institution appeared in more than one equation. Thus, judges in 1978 and 1979 favourably regarded abstracts focusing on methodological research and were more inclined to reject than accept studies concerning agencies. The remaining variables: inductive, cumulative literature, type of analysis, data collection, instrumentation, implications for the field, programme planning, foundations, characteristics/adult learning, jargon, voice, and flow of the argument significantly influenced the judging process in only one year. Of

the above variables, six focused on research processes, five concerned abstract content, and three were related to composition. These types of variables also had different effects across the years. For example, in 1979 compositional variables did not enter the discriminant function equation, while in 1980 jargon had the most powerful individual effect ($-.60$). In 1978 and 1980 process, content, and compositional variables manifested a similar association with acceptance. In 1979, however, content variables had the most influence.

CHAPTER 7

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND LIMITATIONS

Prior to the 1981 "Call for Papers", the only guidelines provided to researchers requested that abstracts should be approximately 250 words in length. Given this constraint, there is a limit to the amount of information that can be "squeezed" into an abstract. An abstract is defined in the Oxford Dictionary (Sykes, 1976) as a "summary". As such, it should describe all the essential elements of the research being reported. Research textbooks like Kerlinger (1973) list sources from whence abstracts can be obtained but provide little or no information concerning the qualities of a good abstract. Information storage and retrieval systems like E.R.I.C. employ abstracts (and abstract writers). The Faculty of Graduate Studies at the University of British Columbia (and other universities) requires thesis and dissertation committee chairpersons to sign an abstract to signify that it fairly represents the work reported. Most journals carry abstracts before their articles. Sociological Abstracts, Psychological Abstracts, and other services print large compendiums of abstracts. All of the above reinforce the fact abstracts are crucial to the dissemination of scientific information and must, therefore, parsimoniously describe key elements of the research being reported. An abstract is a summary which usually consists of statements concerning the theory which supports or arises from the research, a problem statement, a description of the methodology, instrumentation, analysis, results, and conclusions.

SUMMARY

The purposes of this study were twofold: to examine characteristics of abstracts submitted for A.E.R.C.'s held in 1978, 1979, 1980 and, to identify variables associated with the acceptance/rejection of abstracts submitted to the A.E.R.C. in each of the three years.

Based on social science literature focusing on variables associated with the acceptance/rejection of manuscripts submitted for publication, a 41-item instrument was developed to assess the characteristics of A.E.R.C. abstracts. As A.E.R.C. abstracts were judged blind (i.e., authors are unknown to the judges), the study focused on variables internal to the manuscript. The variables concerned the content (adult education focus and methodological orientation) of the research, the processes employed, and the composition of the abstract.

To ensure that the instrument and coding system were reliable and valid, a series of pilot studies were carried out. Two groups of expert judges attested to the content validity of the instrument. The first consisted of two professors and two doctoral students of adult education; the second was the 1981 A.E.R.C. Steering Committee. Two aspects of interjudge reliability were considered. An interjudge reliability process showed the extent to which five judges agreed among themselves while a researcher-judges procedure showed the extent to which the researcher agreed with the other judges. Based on the coding of nine abstracts, a repeated measures design analysis of variance (SPSS subprogram Reliability) showed that the judges made consistent coding decisions on 37 of the 39 variables. This suggested that each of the "anchor" points in scales used to quantify the variables were sufficiently clear for judges to make responses which

resembled those of their colleagues when the entire judging group worked alone. They made inconsistent judgements concerning the extent to which abstracts were admonitional/prescriptive ($F = 4.29$, $p < .005$) and inductive ($F = 6.94$, $p < .001$). An examination of each judge's codes on these variables as well as the results of a researcher-judges reliability analysis, showed that the unreliability on these two variables stemmed from the coding decisions of a judge, not the researcher. In other words, the researcher's codes more closely resembled those of the three "conforming" judges than did those of a "non-conforming" judge. During a second reliability procedure, the codes of the researcher were compared, through analysis of variance, with the combined codes of the judges. On all but two variables, the researcher's coding decisions were consistent with those of the judges.

This instrument was used to code 329 (1978 $n=77$; 1979 $n=126$; 1980 $n=126$) accepted and rejected abstracts on 39 variables. Information pertaining to abstract number, acceptance, year the abstract was presented, and number of words in the title was noted on the coding schedule after the abstract had been coded on the other variables. Five weeks after coding was completed, a random sample of 97 abstracts were recoded while an additional 20 were recoded a third time. These steps were taken to ensure that the instrument and coding process was stable across time. Of 117 correlations, 115 were associated at the .05 level of significance. The remaining two attained statistical significance (at the .07 level for a two-tailed test, or the .05 level for a one-tailed test). It was concluded that across time, the instrument and coding process remained stable.

The data were subjected to both bi- and multivariate analyses. The first step involved an analysis of differences between the means of accepted and rejected abstracts on each of the internal variables for each year. When using t-tests, the item means of abstracts accepted and rejected in 1978 differed significantly on two content, five process, and two compositional variables: agency or institution, methodological, implications for research and the field, instrumentation, novelty of research, state of the research, voice, and flow of the argument. In 1979, accepted abstracts had significantly different means on three content and three process variables: agency or institution, programme planning, methodological, inductive, novelty of research, and cumulative literature. The means of three content, five process, and one compositional variable differed significantly for accepted and rejected abstracts in 1980: foundations, instruction/techniques, characteristics/adult learning, data collection, type of analysis, instrumentation, sample or population, inductive, and jargon.

For each of the three years, different variables significantly differentiated between accepted and rejected abstracts. Of the five which had significantly higher means for more than one year, two were content and three were process variables. The inconsistent effects of variables suggested that abstracts submitted in different years varied greatly or that A.E.R.C. Steering Committees regarded variables with varying degrees of importance. The first possibility was tested by calculating and comparing the variable means across accepted and rejected abstracts among the three years. The one-way analysis of variance produced only two significant values — for the variable cumulative literature ($F = 4.51$, $p < .01$) and

and flow of the argument ($F = 3.79$, $p < .02$) (Table 9). It is possible, indeed probable, that the two (out of 39 possible) significant F 's resulted from Type I errors. The lack of significant differences among the mean scores strongly suggests that abstracts submitted in each of the three years were essentially the same.

The variables differentiating accepted from rejected abstracts were entered into discriminant function equations for 1978, 1979, and 1980. Profiles for accepted abstracts differed by year. In 1978, accepted abstracts were primarily written in an active voice, presented a clear and logical argument, were oriented towards use of a particular research methodology, had clearly identified instrumentation and implications for the field, and did not focus on agency sponsorship of adult education programmes. In 1979, accepted abstracts were methodologically oriented, focused on programme planning issues but not agencies, had a clearly defined inductive theoretical development, and were not well anchored in the literature. The 1980 accepted profile contained abstracts which focused on foundations of adult education or characteristics of adults and learning, had clearly identified data collection procedures, used higher-order (e.g., multivariate) data analysis, and moderate amounts of pompous or dysfunctional jargon. Separate discriminant function equations for each year successfully classified 81 percent of abstracts in 1978, 71 percent in 1979, and 78 percent in 1980. Of great significance was the fact that, in general, variables associated with acceptance did not have the same, or even a similar, effect in each of the years studied. Judges appeared to weight variables differently by year.

Several major conclusions were derived from the data analysis reported above. First, most abstracts (77 percent) were successfully classified when using the internal variables employed in the study. Second, the extent to which variables were associated with acceptance varied from year to year. In this regard, the 1978 equation only slightly resembled the one for 1979 or 1980, and vice versa. A third conclusion was that, in general, most A.E.R.C. abstracts (accepted and rejected) failed to include necessary information concerning content and research processes. These conclusions merit further discussion and give rise to implications that might be considered by organizers of future A.E.R.C.'s.

CONCLUSIONS

Acceptance of Abstracts

With regard to the major purpose of the study, the most important conclusion arises from the fact approximately 77 percent of all abstracts were correctly classified into the accept and reject groups. The blind A.E.R.C. reviewing process has led to a situation where abstracts are supposedly selected on the basis of internal characteristics.

A scientific report (or summary thereof) should contain certain minimal information. It is the presence of this information — concerning theory, instrumentation, data collection, analysis, results, conclusions — that determines the acceptance of work for diffusion through a conference like the A.E.R.C. Yet the present study demonstrated that different variables had different effects in different years. Is this a satisfactory situation and why does it occur? One possible explanation to account for variable differences in different years would be that the abstracts differed on a

year-to-year basis. Each year there is a different crop of work; thus the influential variables would change. This explanation was rejected; a comparison of the variable means of all abstracts submitted in each year revealed essentially no differences (Table 9). Thus, a more realistic interpretation of this finding concerned the judging process. Although it has been shown that judges largely attended to internal variables it appeared that the weight assigned to each variable varied from year to year.

Judges "Weighting" Variables

A further observation concerned the relative influence of the content, process, and compositional variables over the three years. In 1978 and 1980 approximately two content, two process, and one (in 1980) to two (in 1978) compositional variables entered the discriminant function equations. But in 1979, during the selection of papers for the Ann Arbor conference, no compositional variable met the criteria for entry into the equation. Despite this anomaly, it was concluded that process, content, and compositional variables were all associated with acceptance. If future selection behaviour is to resemble that occurring in the past, authors should attend to all three elements of the abstract.

Profiles for accepted research in each year — 1978, 1979, and 1980 — were different. As indicated by Table 16, variables for accepted and rejected abstracts showed substantial year by year differences. Two variables, methodological, and agency or institution, appeared in two discriminant function equations (1978, 1979) and successfully distinguished between accepted and rejected abstracts. The remaining twelve variables appeared in only one discriminant function equation. No variable appeared in all three

equations. The profile of accepted abstracts varied from year to year. Furthermore, the relative contribution of each variable to the equation (as indicated by the discriminant function coefficient) varied as well. For example, in 1979, methodological made a powerful contribution to abstract acceptance (discriminant function coefficient .50); its influence in 1978, however, was slightly less (.40). Voice also made a varying contribution to abstract acceptance. In 1978, voice made the most powerful contribution to abstract acceptance (.53), but it had no influence in 1979 or 1980. This finding raises questions concerning the validity of the A.E.R.C. judging process. Is it possible for A.E.R.C. judges to hold methodological research in high esteem one year while in the previous year it was less favourably regarded? Is it possible that for one year, voice is highly regarded, while in following years its influence is non-existent? For one year, A.E.R.C. judges regard voice favourably, yet in the following year, two of the same plus two new judges did not react to its presence. Authors are in the hands of judges whose preferences and knowledge of research vary greatly. As noted below, this has implications for the selections of the A.E.R.C. Steering Committee.

One explanation for different variable effects in the three years may stem from the possible influence of external variables when the first cut (in the selection process) failed to yield enough papers to fill the programme. Conversations with judges revealed that during the selection process for 1981 only 22 abstracts were selected on the first round. A similar figure was cited for 1980, one of the years studied herein. Important variables concerning analysis, design, and other research processes would have had consistent effects when separating first round selections from those

"promoted" later. But when faced with a need to make up a programme of about 40 papers, external variables such as "recognition of a colleague's work" or "judge's predisposition towards certain types of research" could have influenced the selection process. Although the A.E.R.C. is now 22 years old it is still not possible to obtain 40 papers exemplary in every respect. But as adult education research matures, and judges are confronted with better papers, it is likely that an entire programme will be obtained on the first cut. Authors wanting to have papers accepted would thus be well advised to keep the canons of social science research in mind and include all relevant detail.

Summarizing the findings concerning acceptance, it appears that in the face of judges who are likely to assign an unknown weight to abstract variables, future authors should strive to create a summary containing clearly identified descriptions of the crucial content and processes embodied in the research. Because of the year-to-year differences, it was not possible to present a formula or list of characteristics that, if embodied in the abstract, would enhance the likelihood of acceptance. Thus, in some ways, the present research has contributed little except that it is now known that the judges have considerable influence.

Characteristics of Abstracts

As this was the first study of any aspect of the A.E.R.C. it was not possible to compare present with past findings. Moreover, as noted previously, there is no absolute authority concerning abstracts which the present data can be measured against. Thus, the following conclusions merely describe what appeared to be the nature of A.E.R.C. abstracts when viewed

in the light of the widely accepted canons of social science research. Conclusions concern the nature of the content, the processes reported, and the composition of the abstract.

Content of abstracts. It was concluded that most abstracts described research arising from the field of practice with little research devoted to discipline building. Content variables were concerned with areas of adult education and the methodological orientation with which the abstract was concerned. Of the six variables related to areas of adult education, most abstracts (43 percent) focused on issues related to programme planning. The second most researched area concerned characteristics of adult learners or learning processes (30 percent), followed by studies focusing on agency or institutional sponsorship of adult education programmes (19 percent), and issues related to the design and management of instruction (19 percent). These categories were not mutually exclusive as abstracts could be coded "yes" on more than one primary focus. These results suggest that of adult educators submitting abstracts to the A.E.R.C., most were concerned with problems related to the initiation and maintenance of educational activities. Typical studies were those on participation and administration. Many researchers also focused on the sponsorship of adult education activities or the instruction of adults. These problems and issues arose primarily from the field of practice as many adult educators were involved in the organization and administration of programmes or in the actual delivery of instruction within an educational environment. Basic to these concerns was the concept of the "adult learner". Thus, many researchers submitting abstracts to A.E.R.C. studied issues related to the characteristics of adult learners and aspects of their learning processes.

Few researchers submitted abstracts pertaining to the development of adult education as a discipline. Few studies focused on meta-research and the training of adult educators (eight percent), while even fewer reported research related to function, philosophies, or international perspectives in adult education (three percent).

Of the five methodological orientations, most abstracts reported empirically oriented research (approximately 61 percent of submitted studies). The second most popular type was theoretical/conceptual (28 percent) followed by methodological (eight percent). Very few researchers, only three percent, submitted historical research.

There are two possible reasons for the latter result. First, the A.E.R.C. is a North American based research conference and thus reflects a cultural tradition of empirically-oriented research. Adult education in Britain is heavily historical. Secondly, adult education is often described as an applied discipline (Jensen, 1964). Thus, much research is devoted to solving immediate problems, particularly those arising from the field of practice. Historical research does not have an immediate application. In the pragmatic North American milieu, it receives minimal consideration. In the tradition of an applied discipline, adult educators have borrowed methodologies from other disciplines and applied them to their research problems. There has been little need for researchers to develop methodologies unique to adult education. Casual observation also suggests that, in line with this tradition, most adult educators including those in the professoriate, are concerned with meeting research needs expressed by the field. Much research is field-oriented. Few individuals do cumulative research or develop measurement techniques, methodological procedures, or data analysis strategies unique to adult education.

Research processes. Examination of the mean scores and frequencies of process variables suggested that many abstracts submitted to the A.E.R.C. were defective. Abstracts tended to be longer than the suggested 250 words (accepted $\bar{X}=282$; rejected $\bar{X}=262$) but contained only a minimal or no description of research processes followed by the researcher. For example, two key elements of the research process, instrumentation (accepted $\bar{X}=2.05$; rejected $\bar{X}=1.63$) and data collection (accepted $\bar{X}=2.36$; rejected $\bar{X}=2.15$) were barely identified, the second rank on a four-point scale. Most research seemed to be "in progress", conceptually or procedurally, at the time researchers submitted abstracts. Thus, results were barely identified while conclusions and implications of the research were largely ignored. It is interesting to speculate about the extent to which completed (in contrast to "in progress") studies were accepted on the first round. Unfortunately, this relationship cannot be investigated in the present study because the dependent variable (acceptance) makes no distinction between abstracts accepted in the first, second, or subsequent rounds.

Most studies tended to elaborate on previously conducted research and did not introduce new or novel approaches to the problem under investigation. Approximately 28 percent of the research submitted to the A.E.R.C. was considered to break new ground while 72 percent was an elaboration of old ideas. Thus, most research problems were "established" in the adult education literature (e.g., strategies for programme evaluation, life-cycle or motivational orientation studies). The approach to these problems was traditional; few explored new methodologies. Approximately 63 percent of the research conducted was ex post facto. Case studies, survey research, and one-group pretest-posttest designs (Campbell & Stanley, 1963) tended

to dominate. Few researchers manipulated treatments or implemented controls for internal validity; only eight percent of research was quasi-experimental or experimental.

The paucity of information concerning empirical procedures could pose a potential problem for the selection committee. Discriminant function equations indicated that of 19 variables related to research processes, only six significantly differentiated between accepted and rejected abstracts (1978, 1979, and 1980). Accepted studies were those which outlined at least some empirical processes and included statements concerning the theoretical origins of the work, the data collection procedures, analysis, and instrumentation.

Composition of abstracts. It was concluded that most abstracts were reasonably well composed. Compositional variables were concerned with the style and presentation of the abstract. Variables with the highest means included flow of the argument (accepted $\bar{X}=3.41$; rejected $\bar{X}=3.22$), presentation (accepted $\bar{X}=3.28$; rejected $\bar{X}=3.15$), and jargon (accepted $\bar{X}=3.02$; rejected $\bar{X}=3.15$). This suggested that most authors followed "good" compositional principles. Written in either the active (53 percent of all abstracts) or passive voice (47 percent), most were neatly laid-out and contained few typing errors. In most abstracts, the flow of the argument was moderately clear while dysfunctional or pompous jargon rarely appeared. The average length, however, was longer than the recommended 250 words.

One anomalous result involving a compositional variable concerned the strong association between jargon and acceptance in 1980. Abstracts containing moderate ($\bar{X}=2.70$) amounts of pompous or dysfunctional jargon were accepted whereas those where jargon was rare ($\bar{X}=3.24$) were largely rejected.

The discriminant function coefficient of $-.60$ showed that this was the most powerful variable associated with acceptance in 1980. This was a curious result which may have occurred for several reasons. It appears that when faced with jargon-ridden work that manifested other exemplary qualities judges were willing to overlook jargon. Jargon was an interval variable that met the assumptions for Pearsonian correlation. The correlation matrix (Appendix 5) for 1980 gives clues which facilitate understanding of the anomalous result. Jargon was significantly correlated with: no. of words in the abstract ($r = -.20$), theoretical/conceptual ($r = -.28$), empirical/hard data ($r = .26$), flow of the argument ($r = .50$), design ($r = .26$), sample or population ($r = .19$), state of the research ($r = .27$), admonitional/prescriptive ($r = -.19$), and instruction ($r = .17$). It appears that authors who used the greatest amounts of pompous or dysfunctional jargon also wrote abstracts which scored highest on flow of the argument (probably in the moderately clear or extremely clear categories). The correlation matrix suggests that jargon users were also those who reported empirical research, whose studies were in advanced (e.g., results and conclusions) stages at the time the abstract was written, and who tended to specify the nature of their research design and sample. Another possible explanation was that the coder used excessively illiberal criteria to judge whether jargon was pompous or dysfunctional. Although it was possible that the coder became increasingly harsh as coding progressed this explanation was discounted because during pilot testing the coder's judgements concerning jargon were found to conform to those of the judges. The researcher-judges reliability index (Table 3, p. 64) attested to this fact.

Because of the numerous correlations between jargon and other variables it was concluded that jargon per se was not a major attribute of accepted abstracts. Rather, it appears that if the abstract contained other desirable and needed information, moderate amounts of jargon, even that deemed to be pompous, was tolerable. But note that in 1978 and 1979 jargon did not even enter the discriminant function equations.

DISCUSSION

The data analysis and conclusions suggest that, as far as A.E.R.C. abstracts were concerned, internal variables were heavily associated with acceptance. However, in 1978 19 percent, in 1979 29 percent, and in 1980 22 percent of abstracts were incorrectly classified. It is interesting to speculate about variables that, if added to the present equations, would have resulted in an even more accurate assignment to groups than was achieved here.

Relative Impact

The instrument was deemed to be content valid. According to judges involved in selecting abstracts for the 1981 conference, it contained all the variables known to be associated with acceptance, plus others. Why then was it not possible to correctly classify all the abstracts?

As judges made a first cut and then promoted first-round rejects into the accept pile, it was possible that external variables had an influence. External variables were not measured in this study and thus did not enter the discriminant function analyses. It would be reasonable to expect judges to recognize some of the work of colleagues even though abstracts did not contain names or other identifying marks. Was it possible that when faced

with a need to promote rejects to fill out a programme judges had to employ external variables? After all, the internal characteristics of the abstracts initially caused them to reject the work.

A more likely explanation for the failure to correctly classify more than the 77 percent of the abstracts concerned an internal variable that was only partly measured in this study. Conversation with former judges often revolved around the extent to which their "gut-feeling" (or other colloquialisms) influenced acceptance. It appears that judges were sometimes willing to trade off desirable elements (reliability, validity, and so on) if the overall impact of the abstract was appealing. For example, at the 1980 conference there was a paper concerned with Jean Paul Satre's novel "The Flies" (Knudson, 1980). The methodology, instrumentation, findings, and implications flowing from the study were either poorly described or not identified at all. Yet the abstract was accepted. The variable novelty was designed to measure this elusive and somewhat tenuous characteristic of an abstract but, upon reflection, had a narrower scope than the missing (gut-feeling) variable. It is possible that during the first round of the selection process this gut-feeling variable had little influence; the conventional, usually empirically-oriented abstracts were accepted first. But on subsequent rounds, defective but interesting and unusual abstracts were actively considered and selected. The correct classification of approximately 77 percent of abstracts suggests that, in general, abstracts are selected on the basis of internal variables. Nevertheless, there are implications for the future of the A.E.R.C.

POSSIBLE IMPLICATIONS FOR A.E.R.C.

The need to modify some A.E.R.C. procedures has been noted above. Thus, most of the following suggestions are directed at future A.E.R.C. Steering Committees. The suggestions concern the call for papers, the length of abstracts, the selection process, and the possible development of guidelines.

Call for Papers

Until 1981, the only criterion noted was that abstracts should be no longer than 250 words in length. Thus, authors were given no guidelines to assist their abstract writing. Beginning with the 1981 conference, and continuing with 1982, the Call for Papers gave specific detail related to abstract content. Writers were asked to include information concerning objectives, perspectives or theoretical frameworks, methods and/or techniques, data sources, results, conclusions, point of view, and the educational or scientific importance of the study. Given these guidelines, authors are in a better position to write acceptable abstracts in terms of the provided framework. These criteria were largely adapted from those used by the A.E.R.A. (American Education Research Association). With more specific criteria, however, abstract authors might be hard-pressed to stay within the 250-word guideline. One suggestion to benefit authors and judges would be to increase the recommended abstract length.

Length of Abstracts

The current suggested length is 250 words, yet both accepted ($\bar{X}=282$) and rejected ($\bar{X}=262$) abstracts were longer. Longer abstracts would allow authors to more fully outline research processes and develop content. A viable length could be 500-600 words (the maximum length suggested by the

University of British Columbia for dissertation abstracts). Alternatively, a format similar to that of the A.E.R.A. could be considered. The 1981 A.E.R.A. Annual Meeting Call for Proposals stated that paper proposals must include a 2-3 page summary (single-spaced) as well as a 100-word narrative abstract. Symposia proposals must include a similar summary plus a 500-word abstract. Authors reporting well-designed and valid studies would benefit from an increased word allowance; it would allow them to more fully describe the research problem, methodology, and results. However, authors summarizing questionable research would be less likely to benefit; a longer abstract would allow flaws to emerge. It is likely judges would more easily differentiate between acceptable and inadequate research if abstracts were longer.

A second possibility is to require authors to submit abstracts and completed papers. One development concerns the Graduate Student Research Award. A student entering this competition must submit a completed paper (in a form suitable for inclusion in the Proceedings) as well as an abstract. One objection to submitting papers concerns the fact this would place authors under an obligation to complete work earlier (in the year) than at present. But if students have to submit completed papers could not others do the same?

Abstract Selection Process

Committee members usually meet during the annual conference of the Adult Education Association (U.S.A.). Though judges are required to read and select abstracts before the meeting, they are often hard-pressed to read all materials in the time available. During the meeting, abstracts are discussed and judges must reach a decision concerning their acceptance. Between 40-45 abstracts must be chosen for the A.E.R.C. programme. Even if

abstracts are read prior to the selection meeting the judges characteristically pool decisions verbally. Perhaps judges could use a rating scale and provide a written judgement to other judges? This study did not involve anything more than a casual inquiry into the group dynamics at work during the selection process. Perhaps the present informal system is superior. But, in any event, if the A.E.R.C. is to become a more serious scientific meeting, aspects of the selection process will probably need to be modified in the future.

Abstract Guidelines

Authors and judges would benefit from longer abstracts if both knew what to include in an abstract. As the results indicate, the quality of many A.E.R.C. abstracts is questionable. Many potential contributors cannot write a suitable abstract. As well, judges attribute varying importance to abstract variables. Perhaps the A.E.R.C. should sponsor a session at its annual conference which focuses on criteria for acceptable abstracts. The session would provide information on how to write a good abstract. The second suggestion is the publication of abstract guidelines. These would include information similar to that mentioned above. Of course, none of this guarantees that authors will do better research.

Election of judges

Another possible modification relates to the election of judges. At present, nominations are called for prior to and during the conference. It is usual for nominees to identify themselves just prior to the election. Otherwise, there is no "campaigning" and little to identify the competencies (other than their reputation) of people seeking a position on the Steering Committee. The A.E.R.C. Steering Committee is an important gatekeeper of

adult education research. Their decisions can affect a person's career and influence the diffusion of knowledge within the field. Although there is little time for campaigning at A.E.R.C., candidates could follow the example set in other scientific groups and professional associations and provide a brief resume of qualifications that equip them to function as an A.E.R.C. judge.

LIMITATIONS OF THE STUDY

Limitations often relate to the reliability and validity of instruments. In this study these attributes of the instrumentation were crucial to the success of the study and thus explored in a thorough fashion. However, there are other limitations which must be born in mind when interpreting data reported herein.

1. The study only encompassed three years. Since the San Antonio conference of 1978, Proceedings have been published. Match-up sessions were introduced in 1980. In preparing for the 1981 conference the Steering Committee set new and stringent requirements for people presenting symposia. The A.E.R.C. is changing so the findings reported herein could quickly become obsolete. Nevertheless, they provide a baseline which shows what conference abstracts were like from 1978 to 1980.

2. With hindsight it can now be seen that some of the coding criteria could be improved. For example, with regard to the cumulative literature, it was a mistake to include all social science literature in this variable. One researcher, no matter how well read, cannot have sufficient knowledge to code a variable such as this. It should have been restricted to the "cumulativeness" of the adult education literature reported in the abstract.

3. The unexpected negative influence of jargon in 1980 may be related to a limitation concerning this variable. It appears that jargon was used too broadly. Jargon should have been broken down into more precise variables concerned with adult education, social science, or empirical research jargon. Moreover, as coding progressed lists of acceptable and unacceptable jargon should have been compiled. Although this variable attained satisfactory reliabilities it is possible part of the 1980 result was due to coding error.

4. It was not a limitation to use acceptance as the dependent variable. However, having regard to the nature of the selection process, in particular the first cut and subsequent attempts to promote "rejects" into the "accept" pile, it appears that the independent variables would have had even more explanatory power if a different dependent variable was used. If it had been possible to compare abstracts accepted in the first cut with all other abstracts, more powerful equations might have resulted.

5. It was beyond the scope of this study to examine completed A.E.R.C. papers. This study did not measure the quality of abstracts or papers. A study concerned with quality, and many other aspects of the work diffused through the A.E.R.C., remains to be done.

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Appendix I: A.E.R.C. Coding Schedule

AFRC ABSTRACT STUDY

Column No.

1 - 5	Abstract Number	Five Digits	<input type="text"/>
6	Rejected/Accepted	Reject = 1 Accept = 2	<input type="text"/>
7 - 8	Year abstract was submitted/ presented	(78, 79, 80)	<input type="text"/>
9 - 10	Number of words in the title	(00 - 99)	<input type="text"/>
11 - 13	Number of words in the abstract	(00 - 999)	<input type="text"/>
14	Abstract was presented on the original form	No = 1 Yes = 2	<input type="text"/>
15	Attachments were added to the abstract	No = 1 Yes = 2	<input type="text"/>
16	The <u>presentation</u> of the abstract was	<u>Sloppy</u> (e.g. gross typing errors; crossing-out; bad justification on typing) = 1 <u>Not very neat</u> (e.g. some but not gross errors in typing and layout) = 2 <u>Moderately neat</u> (e.g. no typo's but spacing etc. not perfect) = 3 <u>Very neat</u> (e.g. 100% error free; impeccable neatness and layout) = 4	<input type="text"/>
17	Blank		<input type="text"/>
18	The abstract was written in	Primarily passive voice = 1 Primarily active voice = 2	<input type="text"/>
	<u>Passive voice</u> -- transitive verbs attribute the verbal action to the person or object (e.g. It is contended that; Chi-square analysis was performed; A questionnaire was completed by participants.) <u>Active voice</u> -- the subject performs the action represented by the verb (e.g. The author contends that; The researcher performed a chi-square analysis; Participants completed a questionnaire).		<input type="text"/>
19	The use of <u>jargon</u> in this abstract was	<u>Extensive</u> (e.g. extensive use of unnecessary jargon to "dress-up" the abstract -- involves use of non- standard jargon) = 1 <u>Moderate</u> (e.g. two or three useages of "unnecessary" overly pompous jargon) = 2 <u>Rare</u> (e.g. one or bare minimum use of "unnecessary" jargon) = 3 <u>None</u> (e.g. abstract is cleanly written in "plain" language using only "standard" adult education or social science jargon) = 4	<input type="text"/>
20	Blank		<input type="text"/>
21 - 22	Citations <u>directly cited</u> in the abstract (enter the <u>actual</u> count)	(00 - 99)	<input type="text"/>
	Refers to the number of direct references made to studies, articles, instruments (e.g. Boshier's E.P.S.). For example, "previous participation studies..." <u>is not</u> a direct citation. For a citation to be direct, someone must be named. If an author is cited more than once for different contributions (e.g. Tough, 1974; 1978) this counts as two citations. Self-citations are also included.		<input type="text"/>
23 - 24	The number of <u>different authors</u> cited (enter the actual count)	(00 - 99)	<input type="text"/>
	Refers to the individual authors cited. If there are co-authors, each is counted individually (e.g. Johnston & Rivera counts as two authors.). If an author is cited more than once (e.g. Verner, 1962; Verner & Booth, 1964) this counts as only one citation for Verner. An institution is an author (e.g. UNESCO, 1972.)		<input type="text"/>
25	The <u>funding source</u> for the research is revealed	No = 1 Yes = 2	<input type="text"/>
26	Blank		<input type="text"/>

The primary focus/foci of the abstract was:

27 Theoretical/Conceptual -- theory was the primary focus of the study. No = 1 Yes = 2 ☐

28 Archival/Historical -- involves investigating, recording, analysing and interpreting events of the past for the purpose of discovering generalizations for understanding past and present. No = 1 Yes = 2 ☐

29 Empirical/Hard Data -- the primary focus was the gathering and analysis of data e.g. "number crunching." No = 1 Yes = 2 ☐

30 Admonitional/Prescriptive -- the abstract exhorts that a particular stance be adopted e.g. in favour of grounded theory or, the use of multivariate statistics. The tone of the entire abstract, not just the conclusions, must be prescriptive. No = 1 Yes = 2 ☐

31 Methodological -- where the intent of the research was clearly to investigate a use of a particular methodology. The use of innovative methodology as an incidental adjunct to a larger problem is not a methodological focus. Methodology must be the central focus. No = 1 Yes = 2 ☐

32 The conceptual or theoretical development was Not deductive = 1 Possibly deductive = 2 Probably deductive = 3 ~~Definitely deductive = 4~~ ☐

Deductive -- the author began with a previously deduced theory or conceptual framework. Data was collected in light of the theory. Theory precedes data collection in deductive research. If it appears that the type of data collected is inappropriate to the theory, the development is still considered as deductive. Where data collection was "guided" by theory irrespective of whether the "theory" was from adult education or another discipline, the development is considered deductive.

33 The conceptual or theoretical development was Not inductive = 1 Possibly inductive = 2 Probably inductive = 3 Definitely inductive = 4 ☐

Inductive -- the data speaks for itself. Summary statements of empirical relationships are accumulated to form general explanatory principles. Data is collected, analysed and theoretical statements made after the data "have spoken." If the "theory" arising from the data is not indigenous to adult education, it is still inductive.

34 The argument and logical flow of the abstract was Not at all clear = 1 Only slightly clear = 2 Moderately clear = 3 Extremely clear = 4 ☐

Clarity of the argument or flow of the abstract is independent of the substance or overall content. For example, the abstract may be clearly and logically written yet void of any substantive information i.e. clear but naive.

35 Blank ☐ Blank

36 The state of the research in this study was in a ☐

Conceptual phase -- evidence that the nature of the problem and variables have been conceptualized, but no evidence that data gathering operations have been performed. = 1

Planning phase -- plans for implementation of research procedures are revealed but no evidence of actual implementation is revealed. = 2

Operational phase -- researcher has implemented procedures and gathered data. There is no evidence of data analysis. = 3

Analytical phase -- data was gathered and analyzed but no explicit results were revealed. = 4

Results and Conclusions phase -- explicit results and conclusions are described. Mere illusion to, or statement saying that there are results and conclusions is inadequate. Actual results and conclusions must be described. = 5

Implications phase -- explicit implications for theory, future research or practice are described. Mere illusion to, or statement saying that there are implications is inadequate. Actual implications must be described. = 6

37 The problem investigated stems from literature/research which is

Not at all cumulative -- problem does not appear to stem from any "known" body of research or approach to the problem. = 1

Slightly cumulative -- reference to not more than one "antecedent" piece of literature or recognizable idea/model/theoretical orientation in adult education or another discipline. = 2

Moderately cumulative -- reference to at least two "antecedents" or to a modest body of knowledge known to exist in adult education or elsewhere (e.g. problem stems from...meta-research literature; literature on margin; literature on contingency management in adult education). = 3

Extremely cumulative -- reference to three or more "antecedents" or to a substantial body of knowledge known to exist in adult education and elsewhere (e.g. from participation literature; experiments on group dynamics; motivation). = 4

38 For the discipline of adult education, this research

Is an elaboration of old ideas = 1
Breaks new ground or presents new ideas = 2

39 Blank

40 The design of the study was

Not identified -- there is no indication of a research design. = 1

Ex post facto (including historical) -- the researcher, rather than creating the treatment, examines the effects of a naturalistically occurring treatment after the treatment has occurred. Most adult education surveys, content analysis, and suchlike are ex post facto. If there is no treatment being manipulated, the study is ex post facto. = 2

Quasi-experimental -- these designs are not fully true experimental designs, they control for some but not all sources of internal validity. = 3

Experimental -- these designs provide for complete control of all sources of internal validity. = 4

41 The methodology of the study was

Not identified -- there is no mention of the methodology (e.g. Data was gathered). = 1

Barely identified -- methodological "hints" but is very difficult to pinpoint because of skimpy information (e.g. 100 interviews were conducted). = 2

Partially identified -- includes some but not all information concerning procedures employed for data gathering. = 3

Explicitly identified -- key and probably all procedures are clearly explained. The author has answered questions like: what variables were manipulated? how were the instruments administered? etc. = 4

42 The instrumentation used in this study was

Not identified -- no mention of specific instrumentation = 1

Barely identified -- only a "bare-bones" description is given (e.g. A questionnaire concerning attitudes towards continuing professional education was administered.) = 2

Partially identified -- some content of the instrument is described (e.g. The first question asked respondents to rank order statements concerning the need for continuing professional education.) = 3

Explicitly identified -- concise content of at least one instrument used is given. The name or author of an instrument (e.g. 16 P.F., Eysenck Personality Inventory) are sufficient if the instrument is known and has an established reputation. Where the experimenter has used two or more instruments only one need be "explicitly" identified. = 4

- 43 Information pertaining to the reliability of the instrumentation in this study was
- 44 Information pertaining to the validity of the instrumentation in this study
- 45 The nature of the sample or population in this study was
- 46 Some form of data analysis was mentioned in this study
- 47 "Highest" type of data analysis (do not accept literal "masking" statements -- act like a judge!)
- 48 The results of the study were
- Not identified -- no information given at all. = 1
- Barely identified -- reference to the fact instrument is reliable but no evidence of having tested its reliability in the present study (e.g. ...an instrument with known reliabilities was employed...). = 2
- Partially identified -- oblique reference to the fact instrument reliability procedures were employed in the present study, results are probably available but are not revealed in the abstract (e.g. A six week test re-test reliability procedure was employed...). = 3
- Explicitly identified -- actual type of reliability tests and/or results are revealed (e.g. A six week test re-test procedure showed that the instrument was reliable $r = .67$ $p = .05$). = 4
- Not identified -- no information given at all. = 1
- Barely identified -- reference to the fact the instrument is valid but no evidence of having tested the validity in the present study (e.g. An instrument with known validity was employed.) = 2
- Partially identified -- oblique reference to the fact instrument validity procedures were employed in the present study, results are probably available but not revealed in the abstract (e.g. Instrument validity was determined.) = 3
- Explicitly identified -- actual type of validity procedures and/or results are revealed (e.g. Content validity was determined by submitting the instrument to a panel of judges.) = 4
- Not identified -- no description is given. = 1
- Barely identified -- only a "bare-bones" description given (e.g. total size only -- 100 administrators) = 2
- Partially identified -- the total number plus two other pieces of information concerning the S's (e.g. 100 women (18-35 years)) = 3
- Explicitly identified -- the number and three or more additional pieces of information concerning S's or selection/sampling procedures (e.g. 100 female Baptist high school teachers were randomly selected.) = 4
- No = 1
- Yes = 2
- Analyzed data but "type" unclear = 2
- Univariate -- frequencies only = 3
- Bivariate -- chi-square analysis, correlations, One-way ANOVA, t-test. = 4
- Multivariate -- regression, factor analysis, discriminant function analysis, AID 3 = 5
- Not identified -- no results were given = 1
- Barely identified -- if the word result(s) appears, code "barely" because the researcher acknowledges this element exists (e.g. Results of the study will be discussed.) = 2
- Partially identified -- a general "result" statement or only one result appears (e.g. Results indicated female teachers have a more negative attitude towards continuing education than male teachers.) = 3
- Explicitly identified -- a definite statement of two or more results appears (e.g. Results indicated a more negative attitude towards formal continuing education by female teachers than male teachers. Female teachers however spend a greater amount of time on individual learning projects.) = 4

49

The conclusions derived from this study were

Not identified -- no conclusions were given. = 1

Barely identified -- if the word conclusion(s) appears, code "barely" because the researcher acknowledges this element exists (e.g. Conclusions will be discussed.) = 2

Partially identified -- a general statement of a conclusion appears (e.g. It can be concluded that a conference is a successful means of disseminating information.) = 3

Explicitly identified -- a definite statement of two or more conclusions appears (e.g. It can be concluded that the Semantic Differential is both a reliable and valid measure of the attitude change which conference participants underwent.) = 4

50

The implications of the study for future research were

Not identified -- no implications were mentioned. = 1

Barely identified -- the researcher "barely" acknowledges implications arise from the study (e.g. Implications for future research will be considered) but doesn't state what they are. = 2

Partially identified -- a general statement of implications for research appears (e.g. Further studies must be conducted to determine the extent of individual learning projects.) At least one actual implication is noted. = 3

Explicitly identified -- a definite statement of at least two implications for research appears (e.g. Further studies, utilizing more precise criteria than those in this study, must be conducted to determine the extent of individual learning projects. As well, learners must...) = 4

51

The implications of the study for future theorizing were

Not identified -- no implications were mentioned. = 1

Barely identified -- the researcher "barely" acknowledges implications arise from the study (e.g. Implications for future theorizing will be discussed) but doesn't discuss any. = 2

Partially identified -- a general statement of at least one implication for theorizing appears (e.g. Force field analysis will be a valuable tool in understanding adult participation.) = 3

Explicitly identified -- a definite statement of at least two implications for theorizing appears (e.g. Force field analysis applied to adult participation suggests the need to re-evaluate this concept. Furthermore...) = 4

52

The implications of the study for the field of practice of adult education were

Not identified -- no implications were mentioned. = 1

Barely identified -- the researcher "barely" acknowledges implications arise from the study (e.g. Implications for the practice of adult education will be discussed) but doesn't actually state any. = 2

Partially identified -- a general statement of at least one implication for the field of practice appears (e.g. This study indicates the need to develop a futures orientation in adult education.) = 3

Explicitly identified -- a definite statement of at least two implications for the field of practice appears (e.g. This study indicates the need for programme planners to give greater consideration to macro-level (e.g. community, societal and global) needs-data, and develop a ...) = 4

53 - 54

Blank

The "primary" area(s) of research discussed
in this abstract is/are:

- 55 FOUNDATIONS OF ADULT EDUCATION No = 1
Yes = 2 ☐
- e.g. Functions of adult education
 Philosophy
 International perspectives
 Lifelong education
 Public policy
 Basic concepts
- 56 CHARACTERISTICS OF ADULT LEARNERS No = 1
AND LEARNING Yes = 2 ☐
- e.g. Life cycle development
 Physiological/psychological determinants of
 behaviour
 Adult learning
 Motivation
- 57 AGENCY OR INSTITUTIONAL SPONSORS No = 1
Yes = 2 ☐
- 58 PROGRAM PLANNING, PARTICIPATION, No = 1
ADMINISTRATION AND METHODS Yes = 2 ☐
- e.g. Individual, group, community methods
 Needs and needs analysis
 Program goals
 Budgetting, marketing of programs
 Program evaluation
 Participation, drop-out, persistence
- 59 DESIGN AND MANAGEMENT OF INSTRUCTION: No = 1
TECHNIQUES AND DEVICES Yes = 2 ☐
- e.g. Objective setting
 Analysis into learning tasks and techniques
 Techniques and devices
 Evaluation of learning
 Evaluation of instruction
- 60 ADULT EDUCATION AS A DISCIPLINE AND No = 1
FIELD OF STUDY Yes = 2 ☐
- e.g. Meta-research
 Dissemination of knowledge about adult education
 Training adult educators

Paper Title: _____

Program Abstract (about 250 words)

elite type

pica type

	REJACCEP	WORDSTIT	WORDSABS	ORIGINAL	ATTACH	PRESENT	VOICE	JARGON	DIRECTCI
REJACCEP	1.00000	-0.02129	0.13072	0.17368	-0.09128	0.18599	0.26753	0.09929	-0.14399
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	-0.02129	1.00000	0.10860	0.23831	-0.12139	-0.05408	-0.01177	0.06533	-0.07861
WORDSABS	0.13072	0.10860	1.00000	0.09983	0.24603	-0.06435	0.02060	-0.23923	0.21853
ORIGINAL	0.17368	0.23831	0.09983	1.00000	0.06367	-0.05622	-0.02469	-0.04727	0.09163
ATTACH	-0.09128	-0.12139	0.24603	0.06367	1.00000	0.01193	-0.08036	0.04113	0.59318
PRESENT	0.18599	-0.05408	-0.06435	-0.05622	0.01193	1.00000	0.00926	0.10364	-0.23652
VOICE	0.26753	-0.01177	0.02060	-0.02469	-0.08036	0.00926	1.00000	-0.04163	-0.04148
JARGON	0.09929	0.06533	-0.23923	-0.04727	0.04113	0.10364	-0.04163	1.00000	-0.12344
DIRECTCI	-0.14399	-0.07861	0.21853	0.09163	0.59318	-0.23652	-0.04148	-0.12344	1.00000
AUTHORCI	-0.11667	-0.01447	0.20805	0.11160	0.55426	-0.18071	0.05181	-0.12365	0.88154
FUNDING	-0.02755	-0.06703	-0.00065	0.07402	-0.04713	0.06243	-0.13252	-0.04199	-0.10175
THEOCONC	0.04957	0.14284	0.24523	0.08429	0.33991	0.12111	0.25826	-0.17442	0.28322
ARCHHIST	-0.18364	0.05661	-0.03481	0.05164	-0.03288	-0.05806	-0.01063	-0.02929	-0.07098
EMPIHARD	0.14333	-0.13102	-0.16530	-0.05122	-0.26636	-0.20160	-0.22136	0.04237	-0.10953
ADMONPRE	-0.09128	-0.06474	-0.04233	0.06367	-0.04054	0.17899	-0.08036	0.11837	-0.08752
METHO	0.30278	0.03721	0.04957	0.10768	-0.06856	0.24972	-0.02216	0.08588	-0.14800
DEDUCT	-0.05940	-0.12394	0.05088	0.03146	-0.04451	-0.10612	0.04100	-0.42128	0.30747
INDUCT	0.16495	0.21237	0.06279	0.17512	-0.00929	0.07931	-0.08008	0.22188	-0.22288
ARGUFLOW	0.35468	0.08064	0.08230	0.14670	0.02076	0.10722	-0.00362	0.46342	-0.12771
STATERES	0.22783	-0.17311	-0.12866	-0.01411	-0.16127	-0.17987	0.01994	-0.02380	-0.18215
CUMULIT	-0.10237	0.09218	0.00558	-0.03223	-0.06978	-0.07249	-0.00212	0.07862	0.09748
DISCIPRE	0.26977	-0.09845	0.17920	-0.05164	-0.00731	0.14516	0.03400	0.08746	-0.18139
DESIGN	0.02678	-0.02286	-0.05664	0.05995	0.04581	-0.29663	-0.13719	0.19355	0.02198
DATA COLL	0.08536	-0.12728	0.01775	0.03970	0.06740	-0.18870	-0.15358	0.23080	0.07606
INSTRU	0.25910	-0.08320	0.01158	-0.14547	-0.15587	-0.05186	-0.12908	0.27436	-0.08616
RELIAB	0.12087	-0.03293	-0.01930	0.07307	-0.04653	-0.00374	0.21653	0.15198	-0.05783
VALID	0.14521	-0.11568	-0.04205	0.05164	-0.03288	0.04355	-0.01063	0.15866	-0.07098
SAMPLE	0.08076	-0.17417	0.00793	-0.22211	0.09250	-0.18849	-0.05864	0.29594	0.17281
TYPEANAL	0.07120	0.06839	0.00779	-0.16984	-0.06961	-0.21896	0.02700	0.12983	-0.07513
RESULTS	0.16945	-0.07356	-0.07569	-0.02393	-0.06856	-0.14462	-0.04111	0.05867	-0.05208
CONCLUS	-0.05249	0.16380	-0.02428	0.17416	0.07886	-0.11968	-0.02357	-0.04244	-0.16491
RESIMP	0.25924	-0.06345	-0.10287	-0.05689	-0.08331	0.16632	-0.00890	0.17424	-0.17985
THEOIMP	-0.01922	-0.13291	0.01148	0.05164	-0.03288	0.14516	-0.01063	-0.12326	-0.07098
FIELDIMP	0.33666	-0.22727	0.06032	0.04984	0.05554	0.13078	0.11009	-0.07146	-0.05329
FOUNDAT	-0.09128	-0.05058	0.10215	0.06367	-0.04054	-0.07159	-0.08036	-0.26785	-0.01945
CHARAC	0.14666	-0.05071	0.15957	-0.07980	-0.13549	-0.02991	0.06860	-0.08843	-0.00813
AGENCY	-0.26688	-0.04749	0.07715	-0.11323	0.09853	-0.15278	-0.02796	-0.03586	0.06744
PROGPLAN	-0.02865	-0.00550	0.01010	0.10722	0.22056	0.19476	0.12356	-0.04366	0.15872
INSTRUC	0.08014	0.12789	-0.10020	0.03194	-0.09492	-0.12572	-0.16565	0.03171	-0.13660
DISCIP	0.03233	-0.09433	-0.22986	-0.01222	-0.07779	-0.13737	-0.02514	-0.02483	0.06717

	AUTHORCI	FUNDING	THEOCONC	ARCHHIST	EMPIHARD	ADMONPRE	METHO	DEDUCT	INDUCT	ARGUFLOW
REJACCEP	-0.11667	-0.02755	0.04957	-0.18364	0.14333	-0.09128	0.30278	-0.05940	0.16495	0.35468
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	-0.01447	-0.06703	0.14284	0.05661	-0.13102	-0.06474	0.03721	-0.12394	0.21237	0.08064
WORDSABS	0.20805	-0.00065	0.24523	-0.03481	-0.16530	-0.04233	0.04957	0.05088	0.06279	0.08230
ORIGINAL	0.11160	0.07402	0.08429	0.05164	-0.05122	0.06367	0.10768	0.03146	0.17512	0.14670
ATTACH	0.55426	-0.04713	0.33991	-0.03288	-0.26636	-0.04054	-0.06856	-0.04451	-0.00929	0.02076
PRESENT	-0.18071	-0.06243	0.12111	-0.05806	-0.20160	0.17899	0.24972	-0.10612	0.07931	0.10722
VOICE	0.05181	-0.13252	0.25826	-0.01063	-0.22136	-0.08036	-0.02216	0.04100	-0.08008	-0.00362
JARGON	-0.12365	-0.04199	-0.17442	-0.02929	0.04237	0.11837	0.08588	-0.42128	0.22188	0.46342
DIRECTCI	0.88154	-0.10175	0.28322	-0.07098	-0.10953	-0.08752	-0.14800	0.30747	-0.22288	-0.12771
AUTHORCI	1.00000	-0.11896	0.31065	-0.08299	-0.08537	-0.10232	-0.17304	0.33820	-0.19066	-0.13251
FUNDING	-0.11896	1.00000	0.12826	-0.03823	-0.06636	0.25530	-0.07971	-0.15136	0.19715	-0.06877
THEOCONC	0.31065	0.12826	1.00000	-0.09673	-0.66047	-0.11927	0.08950	0.14633	-0.06242	-0.17404
ARCHHIST	-0.08299	-0.03823	-0.09673	1.00000	-0.21602	-0.03288	-0.05560	-0.10559	-0.00754	0.04924
EMPIHARD	-0.08537	-0.06636	-0.66047	-0.21602	1.00000	-0.26636	-0.18500	0.00627	0.09884	0.09351
ADMONPRE	-0.10232	0.25530	-0.11927	-0.03288	-0.26636	1.00000	-0.06856	-0.13019	0.14970	-0.05916
METHO	-0.17304	-0.07971	0.08950	-0.05560	-0.18500	-0.06856	1.00000	-0.11149	0.08511	0.20403
DEDUCT	0.33820	-0.15136	0.14633	-0.10559	0.00627	-0.13019	-0.11149	1.00000	-0.50115	-0.09127
INDUCT	-0.19066	0.19715	-0.06242	-0.00754	0.09884	0.14970	0.08511	-0.50115	1.00000	0.27950
ARGUFLOW	-0.13251	-0.06877	-0.17404	0.04924	0.09351	-0.05916	0.20403	-0.09127	0.27950	1.00000
STATERES	-0.17254	0.02481	-0.42919	-0.00607	0.52298	-0.31505	-0.13457	-0.17600	0.14808	0.14851
CUMULIT	0.04547	-0.17299	0.16665	-0.05660	-0.20420	-0.06978	0.21606	0.11425	0.08060	-0.00473
DISCIPRE	-0.22553	-0.04937	0.06126	-0.12000	-0.06686	0.13335	0.19577	0.01128	0.06280	0.14057
DESIGN	0.03319	-0.03218	-0.51380	0.03715	0.61627	-0.15015	-0.17108	-0.16754	0.36981	0.17972
DATA COLL	0.03367	0.04408	-0.40899	0.17425	0.47448	-0.16851	-0.12289	-0.06036	0.23173	0.34748
INSTRU	-0.08854	0.02101	-0.45857	-0.05588	0.42194	-0.03991	0.06733	-0.07087	0.26993	0.37371
RELIAB	-0.02610	-0.05409	-0.04106	-0.03774	0.08734	-0.04653	0.12786	0.19922	-0.06043	0.15723
VALID	-0.08299	-0.03823	-0.09673	-0.02667	0.12344	-0.03288	0.21199	0.10288	-0.00754	0.14646
SAMPLE	0.07502	0.02792	-0.29202	0.01948	0.40572	-0.11296	-0.08968	-0.19357	0.24096	0.25595
TYPEANAL	-0.05490	-0.05311	-0.32445	-0.09527	0.40250	-0.06961	-0.07725	-0.17625	0.24729	0.13732
RESULTS	0.00174	-0.07971	-0.41740	-0.11507	0.57199	-0.21520	-0.27093	-0.08735	0.23076	0.22656
CONCLUS	-0.16016	0.03653	-0.04712	0.06396	0.03469	-0.04764	-0.10731	-0.01238	0.16304	0.20250
RESIMP	-0.21028	0.06527	-0.08099	0.15863	-0.02380	0.19560	0.15390	-0.10678	0.19399	0.26400
THEOIMP	-0.08299	-0.03823	0.08947	-0.02667	-0.04629	-0.03288	-0.05560	0.20712	0.08918	0.04924
FIELDIMP	-0.03115	0.18295	0.01362	-0.03754	-0.07199	0.12342	0.09392	0.14482	-0.03395	0.25308
FOUNDAT	-0.02937	-0.04713	0.18685	-0.03288	-0.12684	-0.04054	-0.06856	0.38389	-0.16828	-0.05916
CHARAC	-0.00673	-0.15752	0.04900	-0.10989	0.10068	-0.13549	0.04654	0.17339	0.00216	-0.09755
AGENCY	0.13193	0.22211	-0.00954	0.38006	-0.04737	-0.08651	-0.14630	-0.04927	-0.14706	0.00166
PROGPLAN	0.13145	0.13890	0.17304	-0.14907	-0.23167	0.22056	0.03108	-0.05751	0.14323	0.01129
INSTRUC	-0.12977	0.04138	-0.20245	-0.07698	0.28635	-0.09492	-0.05016	-0.08988	-0.06164	0.06196
DISCIP	0.05563	-0.09043	-0.05264	-0.06309	0.05111	-0.07779	0.12168	-0.00320	0.02793	-0.06751

	STATERES	CUMULIT	DISCIPRE	DESIGN	DATA COLL	INSTRU	RELIAB	VALID	SAMPLE
REJACCEP	0.22783	-0.10237	0.26977	0.02678	0.08536	0.25910	0.12087	0.14521	0.08076
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	-0.17311	0.09218	-0.09845	-0.02286	-0.12728	-0.08320	-0.03293	-0.11568	-0.17417
WORDSABS	-0.2866	0.00558	0.17920	-0.05664	0.01775	0.01158	-0.01930	-0.04205	0.00793
ORIGINAL	-0.01411	-0.03223	-0.05164	0.05995	0.03970	-0.14547	0.07307	0.05164	-0.22211
ATTACH	-0.16127	-0.06978	-0.00731	0.04581	0.06740	-0.15587	-0.04653	-0.03288	0.09250
PRESENT	-0.17987	-0.07249	0.14516	-0.29663	-0.18870	-0.05186	-0.00374	0.04355	-0.18849
VOICE	0.01994	-0.00212	0.03400	-0.13719	-0.15358	-0.12908	0.21653	-0.01063	-0.05864
JARGON	-0.02380	0.07862	0.08746	0.19355	0.23080	0.27436	0.15198	0.15866	0.29594
DIRECTCI	-0.18215	0.09748	-0.18139	0.02198	0.07606	-0.08616	-0.05783	-0.07098	0.17281
AUTHORCI	-0.17254	0.04547	-0.22553	0.03319	0.03367	-0.08854	-0.02610	-0.08299	0.07502
FUNDING	0.02481	-0.17299	-0.04937	-0.03218	0.04408	0.02101	-0.05409	-0.03823	0.02792
THEOCONC	-0.42919	0.16665	0.06126	-0.51380	-0.40899	-0.45857	-0.04106	-0.09673	-0.29202
ARCHHIST	-0.00607	-0.05660	-0.12000	0.03715	0.17425	-0.05588	-0.03774	-0.02667	0.01948
EMPIHARD	0.52298	-0.20420	-0.06686	0.61627	0.47448	0.42194	0.08734	0.12344	0.0572
ADMONPRE	-0.31505	-0.06978	0.13335	-0.15015	-0.16851	-0.03991	-0.04653	-0.03288	-0.11296
METHO	-0.13457	0.21606	0.19577	-0.17108	-0.12289	0.06733	0.12786	0.21199	-0.08968
DEDUCT	-0.17600	0.11425	0.01128	-0.16754	-0.06036	-0.07087	0.19922	0.10288	-0.19357
INDUCT	0.14808	0.08060	0.06280	0.36981	0.23173	0.26993	-0.06043	-0.00754	0.24096
ARGUFLOW	0.14851	-0.00473	0.14057	0.17972	0.34748	0.37371	0.15723	0.14646	0.25595
STATERES	1.00000	-0.24645	0.09739	0.37770	0.32405	0.33110	0.02750	0.08747	0.31567
CUMULIT	-0.24645	1.00000	-0.12651	-0.18901	-0.08702	-0.03934	0.11778	0.07158	0.04134
DISCIPRE	0.09739	-0.12651	1.00000	0.00826	-0.06492	0.11298	0.09434	0.05111	0.03210
DESIGN	0.37770	-0.18901	0.00826	1.00000	0.59026	0.48734	-0.00876	0.03715	0.43718
DATA COLL	0.32405	-0.08702	-0.06492	0.59026	1.00000	0.54508	0.12658	0.10250	0.51905
INSTRU	0.33110	-0.03934	0.11298	0.48734	0.54508	1.00000	0.09334	0.22627	0.36711
RELIAB	0.02750	0.11778	0.09434	-0.00876	0.12658	0.09334	1.00000	0.35849	-0.07962
VALID	0.08747	0.07158	0.05111	0.03715	0.10250	0.22627	0.35849	1.00000	0.01948
SAMPLE	0.31567	0.04134	0.03210	0.43718	0.51905	0.36711	-0.07962	0.01948	1.00000
TYPEANAL	0.25943	0.03039	0.13408	0.52476	0.33363	0.54836	-0.00000	-0.09527	0.21132
RESULTS	0.70249	-0.17740	0.04711	0.50551	0.33840	0.33290	-0.01748	0.12279	0.37842
CONCLUS	0.33004	-0.15245	-0.01999	0.12530	0.08758	0.03886	-0.12727	-0.08994	0.02822
RESIMP	0.11857	0.02604	0.11065	-0.06344	0.02258	0.14593	0.07898	0.04553	0.04935
THEOIMP	0.04070	-0.05660	0.05111	-0.08204	-0.04100	-0.12642	-0.03774	-0.02667	0.01948
FIELDIMP	0.26607	-0.17246	0.12012	-0.15863	-0.05771	0.15680	0.21247	0.04504	-0.03290
FOUNDAT	-0.08438	0.03558	0.13335	-0.15015	-0.10953	-0.09789	-0.04653	-0.03288	-0.18144
CHARAC	0.11952	0.07488	0.32814	-0.05156	-0.04576	0.01195	-0.15550	-0.10989	0.22332
AGENCY	0.00453	-0.20512	-0.24070	0.09775	0.14384	0.00763	-0.09929	-0.07017	-0.05836
PROGPLAN	-0.22818	0.05211	-0.17889	-0.17307	-0.06876	-0.14339	0.04219	0.01491	-0.18388
INSTRUC	0.27178	-0.16338	-0.06415	0.20556	0.05918	0.12958	0.16340	0.13472	0.05622
DISCIP	0.02989	-0.07325	-0.12197	0.03150	-0.02910	0.03468	-0.08927	-0.06309	-0.07219

	TYPEANAL	RESULTS	CONCLUS	RESIMP	THEOIMP	FIELDIMP	FOUNDAT	CHARAC	AGENCY	PROGPLAN
REJACCEP	0.07120	0.16945	-0.05249	0.25924	-0.01922	0.33666	-0.09128	0.14666	-0.26688	-0.02865
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	0.06839	-0.07356	0.16380	-0.06345	-0.13291	-0.22727	-0.05058	-0.05071	-0.04749	-0.00550
WORDSABS	0.00779	-0.07569	-0.02428	-0.10287	0.01148	0.06032	0.10215	0.15957	0.07715	0.01010
ORIGINAL	-0.16984	-0.02393	0.17416	-0.05689	0.05164	0.04984	0.06367	-0.07980	-0.11323	0.10722
ATTACH	-0.06961	-0.06856	0.07886	-0.08331	-0.03288	0.05554	-0.04054	-0.13549	0.09853	0.22056
PRESENT	-0.21896	-0.14462	-0.11968	0.16632	0.14516	0.13078	-0.07159	-0.02991	-0.15278	0.19476
VOICE	0.02700	-0.04111	-0.02357	-0.00890	-0.01063	0.11009	-0.08036	0.06860	-0.02796	0.12356
JARGON	0.12983	0.05867	-0.04244	0.17424	-0.12326	-0.07146	-0.26785	-0.08843	-0.03586	-0.04366
DIRECTCI	-0.07513	-0.05208	-0.16491	-0.17985	-0.07098	-0.05329	-0.01945	-0.00813	0.06744	0.15872
AUTHORCI	-0.05490	0.00174	-0.16016	-0.21028	-0.08299	-0.03115	-0.02937	-0.00673	0.13193	0.13145
FUNDING	-0.05311	-0.07971	0.03653	0.06527	-0.03823	0.18295	-0.04713	-0.15752	0.22211	0.13890
THEOCONC	-0.32445	-0.41740	-0.04712	-0.08099	0.08947	0.01362	0.18685	0.04900	-0.00954	0.17304
ARCHHIST	-0.09527	-0.11507	0.06396	0.15863	-0.02667	-0.03754	-0.03288	-0.10989	0.38006	-0.14907
EMPIHARD	0.40250	0.57199	0.03469	-0.02380	-0.04629	-0.07199	-0.12684	0.10068	-0.04737	-0.23167
ADMONPRE	-0.06961	-0.21520	-0.04764	0.19560	-0.03288	0.12342	-0.04054	-0.13549	-0.08651	0.22056
METHO	-0.07725	-0.27093	-0.10731	0.15390	-0.05560	0.09392	-0.06856	0.04654	-0.14630	0.03108
DEDUCT	-0.17625	-0.08735	-0.01238	-0.10678	0.20712	0.14482	0.38389	0.17339	-0.04927	-0.05751
INDUCT	0.24729	0.23076	0.16304	0.19399	0.08918	-0.03395	-0.16828	0.00216	-0.14706	0.14323
ARGUFLOW	0.13732	0.22656	0.20250	0.26400	0.04924	0.25308	-0.05916	-0.09755	0.00166	0.01129
STATERES	0.25943	0.70249	0.33004	0.11857	0.04070	0.26607	-0.08438	0.11952	0.00453	-0.22818
CUMULIT	0.03039	-0.17740	-0.15245	0.02604	-0.05660	-0.17246	0.03558	0.07488	-0.20512	0.05211
DISCIPRE	0.13408	0.04711	-0.01999	0.11065	0.05111	0.12012	0.13335	0.32814	-0.24070	-0.17889
DESIGN	0.52476	0.50551	0.12530	-0.06344	-0.08204	-0.15863	-0.15015	-0.05156	0.09775	-0.17307
DATA COLL	0.33363	0.33840	0.08758	0.02258	-0.04100	-0.05771	-0.10953	-0.04576	0.14384	-0.06876
INSTRU	0.54836	0.33290	0.03886	0.14593	-0.12642	0.15680	-0.09789	0.01195	0.00763	-0.14339
RELIAB	-0.00000	-0.01748	-0.12727	0.07898	-0.03774	0.21247	-0.04653	-0.15550	-0.09929	0.04219
VALID	-0.09527	0.12279	-0.08994	0.04553	-0.02667	0.04504	-0.03288	-0.10989	-0.07017	0.01491
SAMPLE	0.21132	0.37842	0.02822	0.04935	0.01948	-0.03290	-0.18144	0.22332	-0.05836	-0.18388
TYPEANAL	1.00000	0.29367	0.00159	0.07929	-0.09527	-0.10132	-0.11746	-0.09269	-0.08123	-0.14201
RESULTS	0.29367	1.00000	0.21358	-0.04917	-0.17453	0.14176	-0.21520	0.15886	-0.17238	-0.10189
CONCLUS	0.00159	0.21358	1.00000	0.07728	0.14090	0.23856	0.07885	-0.10638	-0.10167	0.11173
RESIMP	0.07929	-0.04917	0.07728	1.00000	0.27174	0.20511	0.19559	-0.08423	-0.02899	-0.08868
THEOIMP	-0.09527	-0.17453	0.14090	0.27174	1.00000	0.04504	0.38907	0.06639	-0.07016	-0.14907
FIELDIMP	-0.10132	0.14176	0.23856	0.20511	0.04504	1.00000	0.12342	-0.06961	-0.06255	0.19905
FOUNDAT	-0.11746	-0.21520	0.07885	0.19559	0.38907	0.12342	1.00000	0.00941	0.09853	-0.18380
CHARAC	-0.09269	0.15886	-0.10638	-0.08423	0.06639	-0.06961	0.00941	1.00000	-0.28913	-0.44537
AGENCY	0.08123	-0.17238	-0.10167	-0.02899	-0.07016	-0.06255	0.09853	-0.28913	1.00000	-0.03269
PROGPLAN	-0.14201	-0.10189	0.11173	-0.08868	-0.14907	0.19905	-0.18380	-0.44537	-0.03269	1.00000
INSTRUC	0.10913	0.30542	0.08943	0.03816	-0.07698	0.13003	-0.09492	-0.17183	-0.20255	-0.36271
DISCIP	0.10518	-0.07527	-0.21277	-0.10634	-0.06309	-0.12788	-0.07779	-0.17657	0.04703	0.03527

	INSTRUC	DISCIP
REJACCEP	0.08014	0.03233
YEAR	99.00000	99.00000
WORDSTIT	0.12789	-0.09433
WORDSABS	-0.10020	-0.22986
ORIGINAL	0.03194	-0.01222
ATTACH	-0.09492	-0.07779
PRESENT	-0.12572	-0.13737
VOICE	-0.16565	-0.02514
JARGON	0.03171	-0.02483
DIRECTCI	-0.13660	0.06717
AUTHORCI	-0.12977	0.05563
FUNDING	0.04138	-0.09043
THEOCONC	-0.20245	-0.05264
ARCHHIST	-0.07698	-0.06309
EMPIHARD	0.28635	0.05111
ADMONPRE	-0.09492	-0.07779
METHO	-0.05016	0.12168
DEDUCT	-0.08988	-0.00320
INDUCT	-0.06164	0.02793
ARGUFLOW	0.06196	-0.06751
STATERES	0.27178	0.02989
CUMULIT	-0.16338	-0.07325
DISCIPRE	-0.06415	-0.12197
DESIGN	0.20556	0.03150
DATA COLL	0.05918	-0.02910
INSTRU	0.12958	0.03468
RELIAB	0.16340	-0.08927
VALID	0.13472	-0.06309
SAMPLE	0.05622	-0.07219
TYPEANAL	0.10913	0.10518
RESULTS	0.30542	-0.07527
CONCLUS	0.08943	-0.21277
RESIMP	0.03816	-0.10634
THEOIMP	-0.07698	-0.06309
FIELDIMP	0.13003	-0.12788
FOUNDAT	-0.09492	-0.07779
CHARAC	-0.17183	-0.17657
AGENCY	-0.20255	0.04703
PROGPLAN	-0.36271	0.03527
INSTRUC	1.00000	-0.18212
DISCIP	-0.18212	1.00000

	REJACCEP	WORDSTIT	WORDSABS	ORIGINAL	ATTACH	PRESENT	VOICE	JARGON	DIRECTCI
REJACCEP	1.00000	-0.05855	0.02131	0.08550	0.20081	0.10448	-0.04554	0.01373	0.03835
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	-0.05855	1.00000	0.19688	0.13104	-0.28609	0.01393	0.03370	-0.06801	-0.00622
WORDSABS	0.02131	0.19688	1.00000	0.12908	0.05529	-0.14140	0.12690	-0.21290	0.22560
ORIGINAL	0.08550	0.13104	0.12908	1.00000	-0.17512	-0.05360	-0.01298	-0.07608	0.14307
ATTACH	0.20081	-0.28609	0.05529	-0.17512	1.00000	0.12465	0.11178	0.12243	-0.05600
PRESENT	0.10448	0.01393	-0.14140	-0.05360	0.12465	1.00000	-0.09968	0.01089	-0.12738
VOICE	-0.04554	0.03370	0.12690	-0.01298	0.11178	-0.09968	1.00000	0.21974	-0.04534
JARGON	0.01373	-0.06801	-0.21290	-0.07608	0.12243	0.01089	0.21974	1.00000	-0.25651
DIRECTCI	0.03835	-0.00622	0.22560	0.14307	-0.05600	-0.12738	-0.04534	-0.25651	1.00000
AUTHORCI	0.04801	0.00331	0.22597	0.14776	-0.05784	-0.09737	-0.05830	-0.27885	0.90624
FUNDING	0.00000	0.13120	-0.01867	0.07869	-0.03080	0.02593	-0.06598	0.04424	-0.10695
THEOCONC	-0.04343	-0.05347	0.02675	0.04177	-0.08503	-0.01552	-0.06841	-0.23752	-0.21746
ARCHHIST	0.01646	0.04706	0.06949	0.05067	-0.01983	0.02580	0.03249	-0.02035	0.14807
EMPIHARD	0.02530	0.15082	0.08902	0.09605	-0.14430	0.01788	-0.00026	0.16720	-0.05645
ADMONPRE	-0.03857	-0.01624	-0.06605	-0.07255	-0.02582	-0.04939	0.01496	0.01801	-0.00493
METHO	0.24006	-0.19190	0.06165	0.00456	0.18568	-0.00628	0.04544	-0.00952	-0.05827
DEDUCT	0.04006	0.12095	0.24639	0.15927	-0.07642	-0.10741	-0.06639	-0.19392	0.46785
INDUCT	0.18285	-0.11834	-0.09685	0.16415	0.01836	0.03512	-0.06477	0.10923	-0.07968
ARGUFLOW	0.15849	0.00534	-0.09943	0.07953	0.01245	0.05718	0.18830	0.57912	-0.12324
STATERES	0.01134	0.18251	0.17139	0.16211	-0.18895	0.05008	-0.05493	-0.10065	-0.05849
CUMULIT	-0.21483	0.18701	-0.01412	0.17787	-0.29213	-0.02618	-0.10223	-0.17576	0.23558
DISCIPRE	0.18458	-0.02992	0.13314	0.10026	0.05233	-0.05756	-0.06841	-0.08723	-0.12832
DESIGN	0.13770	0.21404	0.11989	0.11302	-0.04424	-0.04655	-0.00697	0.22010	-0.04992
DATA COLL	0.05241	0.01321	0.29308	0.14496	-0.01830	0.09734	-0.00392	0.06797	-0.00850
INSTRU	0.07509	0.10339	0.19588	-0.01324	0.03487	-0.05142	-0.01722	0.08449	-0.00777
RELIAB	0.21444	-0.06237	0.00414	-0.09167	-0.02871	0.04393	0.03617	-0.06479	0.06853
VALID	0.18285	-0.11545	0.00398	-0.16415	-0.01836	-0.06040	-0.03932	-0.04143	-0.06374
SAMPLE	0.16760	0.12846	0.09555	0.14863	-0.10610	-0.15896	0.04701	0.21556	-0.00594
TYPEANAL	0.03295	0.00725	0.06257	0.14085	0.16100	-0.00743	-0.10616	0.10497	-0.01589
RESULTS	-0.05811	0.13760	0.15843	0.07851	-0.05524	0.01810	0.15430	-0.02650	-0.02587
CONCLUS	0.06238	0.05697	0.08628	0.11734	0.06368	0.06143	0.00618	-0.10558	0.00988
RESIMP	0.04701	-0.11212	0.04133	0.14469	0.14160	-0.00217	-0.13203	-0.08522	-0.06760
THEOIMP	0.06720	-0.07252	-0.02986	0.06895	0.45881	0.09706	-0.11902	0.00554	-0.03046
FIELDIMP	0.01669	0.14341	0.13867	0.13130	-0.09832	-0.04805	0.04280	-0.12012	-0.01756
FOUNDAT	0.09745	-0.04330	-0.03619	0.08998	-0.03522	-0.10511	-0.19085	-0.13730	0.11313
CHARAC	-0.08889	-0.03846	0.19874	-0.03420	0.06024	-0.15365	0.06073	0.01373	0.14816
AGENCY	-0.15903	0.04234	0.07920	-0.22591	0.08843	-0.00846	-0.04736	0.01663	-0.10939
PROGPLAN	0.17678	0.13313	-0.11535	0.12696	0.01420	0.03694	0.11093	-0.18644	0.06040
INSTRUC	-0.07013	-0.05395	-0.17288	-0.08994	-0.05352	0.06056	-0.03159	0.09072	-0.07800
DISCIP	-0.05590	-0.13798	0.02786	0.02868	0.15716	0.00687	-0.09618	0.09212	-0.10329

	AUTHORCI	FUNDING	THEOCONC	ARCHHIST	EMPIHARD	ADMONPRE	METHO	DEDUCT	INDUCT	ARGUFLOW
REJACCEP	0.04801	0.00000	-0.04343	0.01646	0.02530	-0.03857	0.24006	0.04006	0.18285	0.15849
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	0.00331	0.13120	-0.05347	0.04706	0.15082	-0.01624	-0.19190	0.12095	-0.11834	0.00534
WORDSABS	0.22597	-0.01867	0.02675	0.06949	0.08902	-0.06605	0.06165	0.24639	-0.09685	-0.09943
ORIGINAL	0.14776	0.07869	0.04177	0.05067	0.09605	-0.07255	0.00456	0.15927	0.16415	0.07953
ATTACH	-0.05784	-0.03080	-0.08503	-0.01983	-0.14430	-0.02582	0.18568	-0.07642	0.01836	0.01245
PRESENT	-0.09737	0.02593	-0.01552	0.02580	0.01788	-0.04939	-0.00628	-0.10741	0.03512	0.05718
VOICE	-0.05830	-0.06598	-0.06841	0.03249	-0.00026	0.01496	0.04544	-0.06639	-0.06477	0.18830
JARGON	-0.27885	0.04424	-0.23752	-0.02035	0.16720	0.01801	-0.00952	-0.19392	0.10923	0.57912
DIRECTCI	0.90624	-0.10695	0.21746	0.14807	-0.05645	-0.00493	-0.05827	0.46785	-0.07968	-0.12324
AUTHORCI	1.00000	-0.11046	0.24628	0.21337	-0.15669	0.01852	-0.00640	0.53366	-0.15282	-0.11909
FUNDING	-0.11046	1.00000	-0.08744	-0.03788	0.00388	-0.04930	-0.04773	-0.09985	-0.01002	0.04757
THEOCONC	0.24628	-0.08744	1.00000	-0.10456	-0.55303	-0.04816	-0.14625	0.19084	0.05211	-0.15824
ARCHHIST	0.21337	-0.03788	-0.10456	1.00000	-0.17744	-0.03175	-0.04830	-0.02473	-0.04515	0.05105
EMPIHARD	-0.15669	0.00388	-0.55303	-0.17744	1.00000	-0.23096	-0.29470	-0.06639	0.18506	0.12240
ADMONPRE	0.01852	-0.04930	-0.04816	-0.03175	-0.23096	1.00000	0.22518	0.03992	-0.23508	0.04784
METHO	-0.00640	0.04773	-0.14625	-0.04830	-0.29470	0.22518	1.00000	-0.03651	-0.02845	0.04963
DEDUCT	0.53366	-0.09985	0.19084	-0.02473	-0.06639	0.03992	-0.03651	1.00000	-0.47611	-0.12215
INDUCT	-0.15282	-0.01002	0.05211	-0.04515	0.18506	-0.23508	-0.02845	-0.47611	1.00000	0.15592
ARGUFLOW	-0.11909	0.04757	-0.15824	0.05105	0.12240	0.04784	0.04963	-0.12215	0.15592	1.00000
STATERES	-0.09592	0.01087	-0.35635	-0.02659	0.51432	0.01895	-0.19026	0.01675	0.08680	0.00439
CUMULIT	0.18183	-0.11562	0.07120	-0.08562	0.18615	0.05136	-0.14141	0.14570	0.03790	-0.06077
DISCIPRE	-0.04691	-0.01249	0.22016	-0.12065	-0.24148	-0.04816	0.09702	0.05383	0.16379	0.03030
DESIGN	-0.10765	-0.00302	-0.43507	-0.09520	0.56998	0.02478	-0.12977	-0.08550	0.26076	0.23911
DATA COLL	-0.03118	-0.03495	-0.23679	-0.02251	0.43199	-0.14004	0.00648	-0.02921	0.18959	0.14274
INSTRU	-0.05238	-0.03059	-0.39402	-0.10314	0.44660	-0.05823	0.00605	0.02703	0.10512	0.18191
RELIAB	0.02941	0.15664	-0.04657	-0.03530	0.10128	-0.04595	0.27328	0.05727	-0.00934	0.06650
VALID	-0.06583	0.05509	-0.09678	-0.02258	-0.03933	-0.02938	0.46739	-0.08698	0.15523	0.11340
SAMPLE	-0.03682	-0.08497	-0.34559	0.04629	0.42736	-0.03177	-0.09926	0.03499	0.14413	0.28539
TYPEANAL	-0.05141	0.06739	-0.34702	-0.08679	0.40740	-0.11296	-0.04883	-0.01870	0.17070	0.09422
RESULTS	-0.04743	-0.11886	-0.21833	-0.12820	0.45074	-0.10410	-0.18877	0.08459	-0.04073	-0.02883
CONCLUS	-0.02433	-0.02193	-0.14436	0.07830	0.13877	0.10192	-0.04876	0.06118	-0.05109	0.03546
RESIMP	-0.05924	0.05408	0.04977	0.01161	-0.15701	0.03626	0.25705	-0.10358	0.17729	0.09475
THEOIMP	0.06913	-0.05154	-0.01095	-0.03319	-0.05781	-0.04320	0.14938	0.03365	0.03072	0.00000
FIELDIMP	-0.02805	-0.03414	-0.09968	-0.12091	0.23793	-0.15738	-0.11477	-0.02118	0.08902	0.11215
FOUNDAT	0.23157	-0.06727	0.08094	0.36095	-0.19085	0.10148	0.02339	-0.00293	-0.04009	-0.12087
CHARAC	0.10801	-0.07670	0.07057	-0.09877	0.02530	0.14142	-0.00889	0.25038	-0.06857	-0.05857
AGENCY	-0.11892	0.12666	-0.05678	0.17218	-0.16436	-0.00708	-0.16151	-0.00551	-0.17614	0.03793
PROGPLAN	0.01819	0.06198	0.02303	-0.13968	0.04652	-0.01818	-0.05030	-0.17704	0.15007	-0.04385
INSTRUC	-0.10101	0.09144	0.00571	-0.06581	0.05785	-0.08566	0.02681	0.04144	0.06091	0.02610
DISCIP	-0.00575	-0.08575	-0.01821	-0.05522	-0.04526	-0.07187	0.15905	0.02239	-0.08031	-0.10401

	STATERES	CUMULIT	DISCIPRE	DESIGN	DATA COLL	INSTRU	RELIAB	VALID	SAMPLE
REJACCEP	0.01134	-0.21483	0.18458	0.13770	0.05241	0.07509	0.21444	0.18285	0.16760
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	0.18251	0.18701	-0.02992	0.21404	0.01321	0.10339	-0.06237	-0.11545	0.12846
WORDSABS	0.17139	-0.01412	0.13314	0.11989	0.29308	0.19588	0.00414	0.00398	0.09555
ORIGINAL	0.16211	0.17787	0.10026	0.11302	0.14496	-0.01324	-0.09167	-0.16415	0.14863
ATTACH	-0.18895	-0.29213	0.05233	-0.04424	-0.01830	0.03487	-0.02871	-0.01836	-0.10610
PRESENT	0.05008	-0.02618	-0.05756	-0.04655	0.09734	-0.05142	0.04393	-0.06040	-0.15896
VOICE	-0.05493	-0.10223	-0.06841	-0.00697	-0.00392	-0.01722	0.03617	-0.03932	0.04701
JARGON	-0.10065	-0.17576	-0.08723	0.22010	0.06797	0.08449	-0.06479	-0.04143	0.21556
DIRECTCI	-0.05849	0.23558	-0.12832	-0.04992	-0.00850	-0.00777	0.06853	-0.06374	0.00594
AUTHORCI	-0.09592	0.18183	-0.04691	-0.10765	-0.03118	-0.05238	0.02941	-0.06583	-0.03682
FUNDING	0.01087	-0.11562	-0.01249	-0.00302	-0.03495	-0.03059	0.15664	0.05509	-0.08497
THEOCONC	-0.35635	0.07120	0.22016	-0.043507	-0.23679	-0.39402	-0.04657	-0.09678	-0.34559
ARCHHIST	-0.02659	-0.08562	0.12065	-0.09520	-0.02251	-0.10314	-0.03530	-0.02258	0.04629
EMPIHARD	0.51432	0.18615	-0.24148	0.56998	0.43199	0.44660	0.10128	-0.03933	0.42736
ADMONPRE	0.01895	0.05136	-0.04816	0.02478	-0.14004	-0.05823	-0.04595	-0.02938	-0.03177
METHO	-0.19026	-0.14141	-0.09702	-0.12977	0.00648	0.00605	0.27328	0.46739	-0.09926
DEDUCT	0.01675	0.14570	0.05383	-0.08550	-0.02921	0.02703	0.05727	-0.08698	0.03499
INDUCT	0.08680	0.03790	0.16379	0.26076	0.18959	0.10512	-0.00934	0.15523	0.14413
ARGUFLOW	0.00439	-0.06077	0.03030	0.23911	0.14274	0.18191	0.06650	0.11340	0.28539
STATERES	1.00000	0.11077	-0.09463	0.47221	0.32675	0.33306	0.13776	0.09976	0.44610
CUMULIT	0.11077	1.00000	-0.16082	0.03944	0.20956	0.03538	-0.03502	-0.13094	0.08158
DISCIPRE	-0.09463	-0.16082	1.00000	-0.11213	-0.03415	-0.05694	-0.08149	0.03722	0.02359
DESIGN	0.47221	0.03944	-0.11213	1.00000	0.42424	0.46204	0.07312	0.06294	0.54681
DATA COLL	0.32675	0.20956	-0.03415	0.42424	1.00000	0.53143	0.26063	0.05417	0.30373
INSTRU	0.33306	0.03538	-0.05694	0.46204	0.53143	1.00000	0.18283	0.19415	0.42253
RELIAB	0.13776	-0.03502	-0.08149	0.07312	0.26063	0.18283	1.00000	0.63950	0.04873
VALID	0.09976	-0.13094	0.03722	0.06294	0.05417	0.19415	0.63950	1.00000	0.06622
SAMPLE	0.44610	0.08158	0.02359	0.54681	0.30373	0.42253	0.04873	0.06622	1.00000
TYPEANAL	0.17339	0.04305	-0.09659	0.25104	0.34039	0.40153	0.03925	-0.02008	0.26300
RESULTS	0.73648	0.13565	-0.08582	0.32862	0.25436	0.23683	0.10108	-0.02302	0.40973
CONCLUS	0.36076	0.04859	-0.00212	0.16822	0.14690	0.17743	0.01301	-0.03446	0.31653
RESIMP	0.07095	-0.09568	0.15696	0.01942	0.00321	0.13403	0.05040	0.19340	-0.00801
THEOIMP	-0.02476	-0.05572	0.05472	-0.05023	-0.03063	0.05835	-0.04804	-0.03072	-0.10881
FIELDIMP	0.38313	-0.02370	-0.00453	0.14404	0.08014	0.15498	0.00398	0.07122	0.11001
FOUNDAT	0.03977	-0.05950	0.14760	-0.12077	-0.12392	-0.09673	-0.06269	-0.04009	0.01246
CHARAC	-0.01842	0.10176	-0.04343	0.02754	0.16408	0.23935	0.00000	-0.04571	0.08806
AGENCY	-0.08893	-0.11203	-0.01494	-0.07580	-0.21577	-0.20022	-0.11805	-0.07549	-0.08600
PROGPLAN	0.09419	0.02932	-0.08062	0.16413	-0.05640	-0.09790	-0.00722	-0.08773	0.04821
INSTRUC	-0.01332	0.04652	0.00571	-0.09464	0.01982	0.07422	0.26570	0.28533	-0.05080
DISCIP	-0.05545	-0.13063	0.09105	-0.08357	-0.00510	-0.06821	-0.07992	-0.05111	-0.06669

	TYPEANAL	RESULTS	CONCLUS	RESIMP	THEOIMP	FIELDIMP	FOUNDAT	CHARAC	AGENCY	PROGPLAN
REJACCEP	0.03295	-0.05811	0.06238	0.04701	0.06720	0.01669	0.09745	-0.08889	-0.15903	0.17678
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	0.00725	0.13760	0.05697	-0.11212	-0.07252	0.14341	-0.04330	-0.03846	0.04234	0.13313
WORDSABS	0.06257	0.15843	0.08628	0.04133	-0.02986	0.13867	-0.03619	0.19874	0.07920	-0.11535
ORIGINAL	0.14085	0.07851	0.11734	0.14469	0.06895	0.13130	0.08998	-0.03420	-0.22591	0.12696
ATTACH	0.16100	-0.05524	0.06368	0.14160	0.45881	-0.09832	-0.03522	0.06024	0.08843	0.01420
PRESENT	-0.00743	0.01810	0.06143	-0.00217	0.09706	-0.04805	-0.10511	-0.15365	-0.00846	0.03694
VOICE	-0.10616	0.15430	0.00618	-0.13203	-0.11902	0.04280	-0.19085	0.06073	-0.04736	0.11093
JARGON	0.10497	-0.02650	-0.10558	-0.08522	0.00554	-0.12012	-0.13730	0.01373	0.01663	-0.18644
DIRECTCI	-0.01589	-0.02587	0.00988	-0.06760	-0.03046	-0.01756	0.11313	0.14816	-0.10939	0.06040
AUTHORCI	-0.05141	-0.04743	-0.02433	-0.05924	0.06913	-0.02805	0.23157	0.10801	-0.11892	0.01819
FUNDING	0.06739	-0.11886	-0.02193	0.05408	-0.05154	-0.03414	-0.06727	-0.07670	0.12666	0.06198
THEOCONC	-0.34702	-0.21833	-0.14436	0.04977	-0.01095	-0.09968	0.08094	0.07057	-0.05678	0.02303
ARCHHIST	-0.08679	-0.12820	0.07830	0.01161	-0.03319	-0.12091	0.36095	-0.09877	0.17218	-0.13968
EMPHARD	0.40740	0.45074	0.13877	-0.15701	-0.05781	0.23793	-0.19085	0.02530	-0.16436	0.04652
ADMONPRE	-0.11296	-0.10410	0.10192	0.03626	-0.04320	-0.15738	0.10148	0.14142	-0.00708	-0.01818
METHO	-0.04883	-0.18877	-0.04876	0.25705	0.14938	-0.11477	0.02339	-0.00889	-0.16151	-0.05030
DEDUCT	-0.01870	0.08459	0.06118	-0.10358	0.03365	-0.02118	-0.00293	0.25038	-0.00551	-0.17704
INDUCT	0.17070	-0.04073	-0.05109	0.17729	0.03072	0.08902	-0.04009	-0.06857	-0.17614	0.15007
ARGUFLOW	0.09422	-0.02883	0.03546	0.09475	0.00000	0.11215	-0.12087	-0.05857	0.03793	-0.04385
STATERES	0.17339	0.73648	0.36076	0.07095	-0.02476	0.38313	0.03977	-0.01842	-0.08893	0.09419
CUMULIT	0.04305	0.13565	0.04859	-0.09568	-0.05572	-0.02370	-0.05950	0.10176	-0.11203	0.02932
DISCIPRE	-0.09659	-0.08582	-0.00212	0.15696	0.05472	-0.00453	0.14760	-0.04343	-0.01494	-0.08062
DESIGN	0.25104	0.32862	0.16822	0.01942	-0.05023	0.14404	-0.12077	0.02754	-0.07580	0.16413
DATACOLL	0.34039	0.25436	0.14690	0.00321	-0.03063	0.08014	-0.12392	0.16408	-0.21577	-0.05640
INSTRU	0.40153	0.23683	0.17743	0.13403	0.05835	0.15498	-0.09673	0.23935	-0.20022	-0.09790
RELIAB	0.03925	0.10108	0.01301	0.05040	-0.04804	0.00398	-0.06269	0.00000	-0.11805	-0.00722
VALID	-0.02008	-0.02302	-0.03446	0.19340	-0.03072	0.07122	-0.04009	-0.04571	-0.07549	-0.08773
SAMPLE	0.26300	0.40973	0.31653	-0.00801	-0.10881	0.11001	0.01246	0.08806	-0.08600	0.04821
TYPEANAL	1.00000	0.14702	0.27263	-0.05809	0.25833	-0.02597	-0.10917	-0.03112	-0.07860	0.00388
RESULTS	0.14702	1.00000	0.32276	0.02595	0.13018	0.29479	0.01019	0.05037	-0.18982	0.04246
CONCLUS	0.27263	0.32276	1.00000	0.06965	0.07511	0.17861	0.17098	-0.02859	-0.01860	0.06801
RESIMP	-0.05809	0.02595	0.06965	1.00000	0.23694	0.09417	-0.02749	0.12928	-0.20271	-0.09972
THEOIMP	0.25833	0.13018	0.07511	0.23694	1.00000	-0.02991	0.05894	-0.06720	-0.11098	-0.12898
FIELDIMP	-0.02597	0.29479	0.17861	0.09417	-0.02991	1.00000	-0.00976	-0.15858	-0.01838	0.19279
FOUNDAT	-0.10917	0.01019	0.17098	-0.02749	0.05894	-0.00976	1.00000	-0.17541	-0.06974	-0.12403
CHARAC	-0.03112	0.05037	-0.02859	0.12928	-0.06720	-0.15858	-0.17541	1.00000	-0.20184	-0.38891
AGENCY	-0.07860	-0.18982	-0.01860	-0.20271	-0.11098	-0.01838	-0.06974	-0.20184	1.00000	0.11678
PROGPLAN	0.00388	0.04246	0.06801	-0.09972	-0.12898	0.19279	-0.12403	-0.38891	0.11678	1.00000
INSTRUC	0.04083	-0.02065	-0.08732	0.01978	-0.00471	-0.15414	-0.03076	-0.02104	-0.16601	-0.33227
DISCIP	0.07982	0.06064	-0.03197	0.07884	0.31127	0.00622	-0.00000	-0.16770	-0.18464	-0.31623

	INSTRUC	DISCIP
REJACCEP	-0.07013	-0.05590
YEAR	99.00000	99.00000
WORDSTIT	-0.05395	-0.13798
WORDSABS	-0.17288	0.02786
ORIGINAL	-0.08994	0.02868
ATTACH	-0.05352	0.15716
PRESENT	0.06056	0.00687
VOICE	-0.03159	-0.09618
JARGON	0.09072	0.09212
DIRECTCI	-0.07800	-0.10329
AUTHORCI	-0.10101	-0.00575
FUNDING	0.09144	-0.08575
THEOCONC	0.00571	-0.01821
ARCHHIST	-0.06581	-0.05522
EMPIHARD	0.05785	-0.04526
ADMONPRE	-0.08566	-0.07187
METHO	0.02681	0.15905
DEDUCT	0.04144	0.02239
INDUCT	0.06091	-0.08031
ARGUFLOW	0.02610	-0.10401
STATERES	-0.01332	-0.05545
CUMULIT	0.04652	-0.13063
DISCIPRE	0.00571	0.09105
DESIGN	-0.09464	-0.08357
DATA COLL	0.01982	-0.00510
INSTRU	0.07422	-0.06821
RELIAB	0.26570	-0.07992
VALID	0.28533	-0.05111
SAMPLE	-0.05080	-0.06669
TYPEANAL	0.04083	0.07982
RESULTS	-0.02065	0.06064
CONCLUS	-0.08732	-0.03197
RESIMP	0.01978	0.07884
THEOIMP	-0.00471	0.31127
FIELDIMP	-0.15414	0.00622
FOUNDAT	-0.03076	-0.00000
CHARAC	-0.02104	-0.16770
AGENCY	-0.16601	-0.18464
PROGPLAN	-0.33227	-0.31623
INSTRUC	1.00000	-0.14898
DISCIP	-0.14898	1.00000

	REJACCEP	WORDSTIT	WORDSABS	ORIGINAL	ATTACH	PRESENT	VOICE	JARGON	DIRECTCI
REJACCEP	1.00000	-0.09250	0.14249	0.13463	99.00000	-0.04619	-0.07310	-0.24045	0.07459
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	-0.09250	1.00000	0.28805	-0.04904	99.00000	-0.05018	0.08925	-0.08486	-0.06535
WORDSABS	0.14249	0.28805	1.00000	-0.03993	99.00000	-0.14066	-0.10398	-0.20703	0.23441
ORIGINAL	0.13463	-0.04904	-0.03993	1.00000	99.00000	0.01222	-0.08369	-0.12944	0.04010
ATTACH	99.00000	99.00000	99.00000	99.00000	1.00000	99.00000	99.00000	99.00000	99.00000
PRESENT	-0.04619	-0.05018	-0.14066	0.01222	99.00000	1.00000	0.03878	0.16411	0.03824
VOICE	-0.07310	0.08925	-0.10398	-0.08369	99.00000	0.03878	1.00000	0.10953	-0.01628
JARGON	-0.24045	-0.08486	-0.20703	-0.12944	99.00000	0.16411	0.10953	1.00000	-0.11861
DIRECTCI	0.07459	-0.06535	0.23441	0.04010	99.00000	0.03824	-0.01628	-0.11861	1.00000
AUTHORCI	0.14035	-0.12357	0.10759	0.04894	99.00000	0.11884	0.00763	0.00575	0.70258
FUNDING	0.06035	-0.02500	-0.01089	-0.04274	99.00000	0.02200	0.08369	0.01438	0.01094
THEOCONC	-0.12419	0.01202	-0.07852	0.09512	99.00000	0.10072	-0.00086	-0.28363	0.06834
ARCHHIST	0.15346	-0.05543	0.05132	0.06202	99.00000	-0.07884	-0.08168	-0.08117	-0.11464
EMPIHARD	0.11728	0.08166	0.02441	-0.01378	99.00000	-0.04074	0.00710	0.25511	0.03919
ADMONPRE	-0.00374	-0.07171	-0.04839	-0.08269	99.00000	-0.07884	-0.15625	-0.18553	-0.02205
METHO	0.15581	-0.03611	-0.00585	0.07222	99.00000	0.02869	-0.13852	-0.07426	-0.07958
DEDUCT	0.11368	-0.09027	0.04423	-0.00274	99.00000	0.01752	0.00801	-0.07228	0.30525
INDUCT	0.19001	0.09438	0.06897	0.13662	99.00000	0.02983	-0.06088	-0.07441	-0.04265
ARGUFLOW	-0.03569	-0.06515	-0.06561	-0.15480	99.00000	0.36109	0.07571	0.50153	0.06639
STATERES	0.07861	-0.07403	-0.09586	0.09422	99.00000	0.01894	0.10251	0.26530	-0.03349
CUMULIT	-0.02199	0.02148	0.00002	0.10052	99.00000	-0.03554	0.10180	0.07635	0.23627
DISCIPRE	0.13294	-0.08324	0.02237	0.08688	99.00000	0.00666	-0.11033	-0.04682	0.08866
DESIGN	0.10198	0.05560	0.03690	-0.04970	99.00000	0.00158	-0.09676	0.26019	0.02827
DATA COLL	0.27161	0.01881	0.30092	-0.07363	99.00000	-0.06347	-0.16171	0.10043	0.18353
INSTRU	0.21039	-0.09681	0.19430	0.06338	99.00000	0.06362	-0.04578	0.06461	0.25932
RELIAB	-0.00332	-0.00344	0.23199	-0.11607	99.00000	0.11359	0.01574	0.01028	0.06255
VALID	0.14635	0.01950	0.27798	-0.05087	99.00000	0.04393	-0.09953	0.01585	-0.01145
SAMPLE	0.19112	0.00034	0.15159	0.04590	99.00000	-0.08490	0.02050	0.19050	0.03393
TYPEANAL	0.24542	0.04706	0.13888	0.13776	99.00000	-0.02189	0.08783	0.15252	0.11203
RESULTS	0.08036	0.09762	0.07426	0.12015	99.00000	-0.05718	0.10696	0.14002	-0.01568
CONCLUS	0.01108	-0.16349	-0.00822	-0.04237	99.00000	-0.03726	0.17874	0.01170	0.01406
RESIMP	0.00249	-0.10174	0.002710	0.1650	99.00000	0.05245	0.01465	-0.12187	0.12553
THEOIMP	0.03915	-0.06999	0.09159	0.06828	99.00000	0.11827	-0.00782	-0.05107	0.23058
FIELDIMP	0.00527	-0.19134	0.07243	0.11646	99.00000	0.04303	0.01000	-0.04083	0.01656
FOUNDAT	0.30615	0.01565	-0.07547	0.09407	99.00000	0.00115	0.01533	-0.04194	-0.02264
CHARAC	0.19236	-0.07223	0.21214	0.05675	99.00000	-0.05741	-0.02166	0.01238	0.24340
AGENCY	-0.05075	0.13138	0.00935	0.13453	99.00000	0.09835	0.06548	-0.13835	-0.16499
PROGPLAN	-0.02536	0.17599	0.06831	0.04471	99.00000	-0.03297	0.10241	-0.05852	-0.09600
INSTRUC	-0.17192	-0.20338	-0.11266	-0.08047	99.00000	0.04143	0.00276	0.17152	0.06865
DISCIP	-0.03781	0.09630	0.08005	-0.04819	99.00000	-0.04863	-0.10071	-0.06307	-0.09678

	AUTHORCI	FUNDING	THEOCONC	ARCHHIST	EMPIHARD	ADMONPRE	METHO	DEDUCT	INDUCT	ARGUFLOW
REJACCEP	0.14035	0.06035	-0.12419	0.15346	0.11728	-0.00374	0.15581	0.11368	0.19001	-0.03569
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	-0.12357	-0.02500	0.01202	-0.05543	0.08166	-0.07171	-0.03611	-0.09027	0.09438	-0.06515
WORDSABS	0.10759	-0.01089	-0.07852	0.05132	0.02441	-0.04839	-0.00585	0.04423	0.06897	-0.06561
ORIGINAL	0.04894	-0.04274	0.09512	0.06202	-0.01378	-0.08269	0.07222	-0.00274	0.13662	-0.15480
ATTACH	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
PRESENT	0.11884	0.02200	0.10072	-0.07884	-0.04074	-0.07884	0.02869	0.01752	0.02983	0.36109
VOICE	0.00763	0.08369	-0.00086	-0.08168	0.00710	-0.15625	-0.13852	0.00801	-0.06088	0.07571
JARGON	0.00575	0.01438	-0.28363	-0.08117	0.25511	-0.18553	-0.07426	-0.07228	-0.07441	0.50153
DIRECTCI	0.70258	0.01094	0.06834	-0.11464	0.03919	-0.02205	-0.07958	0.30525	-0.04265	0.06639
AUTHORCI	1.00000	-0.01707	0.14068	-0.09085	0.01162	0.06332	-0.02164	0.34651	-0.05617	0.16526
FUNDING	-0.01707	1.00000	-0.09512	-0.06202	0.01378	-0.06202	0.05416	0.00274	0.13662	-0.12942
THEOCONC	0.14068	-0.09512	1.00000	0.03633	-0.01084	0.03633	-0.15510	0.20075	-0.00928	-0.14617
ARCHHIST	-0.09085	-0.06202	0.03633	1.00000	-0.30000	-0.05000	0.24744	-0.15252	0.22509	-0.00409
EMPIHARD	0.01162	0.01378	-0.61084	-0.30000	1.00000	-0.30000	-0.34933	-0.04863	0.05428	0.13776
ADMONPRE	0.06332	-0.06202	0.03633	-0.05000	-0.30000	1.00000	0.09461	-0.05968	-0.17720	-0.04706
METHO	-0.02164	0.05416	-0.15510	-0.24744	-0.34933	0.09461	1.00000	-0.09652	0.02788	0.05777
DEDUCT	0.34651	0.00274	0.20075	-0.15252	-0.04863	-0.05968	-0.09652	1.00000	-0.54053	0.05020
INDUCT	-0.05617	-0.13662	-0.00928	0.22509	0.05428	-0.17720	0.02788	-0.54053	1.00000	0.04723
ARGUFLOW	0.16526	-0.12942	-0.14617	-0.00409	0.13776	-0.04706	0.05777	0.05020	0.04723	1.00000
STATERES	-0.01144	-0.03603	-0.27055	0.15863	0.30535	-0.26365	-0.06114	0.02963	0.07233	0.24145
CUMULIT	0.25099	0.07539	0.04171	-0.08104	-0.15533	0.13169	0.04497	0.23243	-0.20570	0.04124
DISCIPRE	0.17764	-0.15843	0.12074	0.13185	-0.07417	0.04532	-0.07317	-0.02241	0.18549	0.09223
DESIGN	0.03309	-0.09940	-0.41727	-0.02003	0.50754	-0.26045	-0.00583	-0.02126	0.15352	-0.27381
DATACOLL	0.13210	0.04331	-0.33322	-0.03841	0.33990	-0.14842	0.08336	0.08707	0.13430	0.22491
INSTRU	0.10919	-0.12063	-0.35969	-0.16649	0.47804	-0.16649	-0.16364	0.07980	0.17920	0.23426
RELIAB	0.01058	-0.05498	-0.11809	-0.04433	0.14776	-0.04433	-0.05162	0.00196	0.05095	0.18683
VALID	-0.03613	-0.06783	-0.11092	-0.05469	0.15039	-0.05469	-0.06368	-0.05258	0.19119	0.08951
SAMPLE	0.04115	0.03977	-0.44985	0.01480	0.44566	-0.19241	-0.01293	0.06576	0.08719	0.26617
TYPEANAL	0.02041	-0.11609	-0.31704	-0.10233	0.40517	-0.12854	-0.14968	0.05975	0.13686	0.21360
RESULTS	-0.08088	-0.12015	-0.23106	0.09819	0.29812	-0.15260	-0.14524	0.05192	0.07575	0.15969
CONCLUS	-0.03574	0.12712	0.01379	0.01139	-0.05314	0.04555	-0.05636	-0.02870	-0.02836	0.05825
RESIMP	0.09889	-0.07425	0.15626	0.03326	-0.20399	0.03326	0.12006	0.06440	-0.04938	-0.04872
THEOIMP	0.26066	0.09104	0.17998	0.04129	0.01223	-0.05505	-0.06410	0.11316	0.08173	0.09010
FIELDIMP	0.07819	-0.08249	0.04832	-0.05281	-0.08867	0.07042	-0.06150	0.04047	0.06070	0.10661
FOUNDAT	0.14552	0.00724	0.15401	0.16919	-0.01945	-0.07584	0.01868	0.09362	0.14194	0.01886
CHARAC	0.22545	0.07566	-0.09602	-0.07244	0.25925	-0.15250	-0.10765	0.25687	0.09604	0.05304
AGENCY	-0.13438	0.10090	0.17074	0.17626	-0.22898	-0.10846	-0.04342	-0.07912	0.05195	-0.14868
PROGPLAN	-0.08217	0.01788	-0.09603	-0.18744	0.05287	0.11535	-0.08605	-0.17020	0.06802	-0.00914
INSTRUC	-0.04215	0.00537	-0.09113	-0.11677	0.06632	-0.02595	0.02266	0.05335	-0.17896	0.06849
DISCIP	-0.09787	-0.03614	-0.01176	0.20882	-0.12950	0.10684	0.24317	-0.21513	-0.01209	0.00874

	STATERES	CUMULIT	DISCIPRE	DESIGN	DATA COLL	INSTRU	RELIAB	VALID	SAMPLE
REJACCEP	0.07861	-0.02199	0.13294	0.10198	0.27161	0.21039	-0.00332	0.14635	0.19112
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	-0.07403	0.02148	-0.08324	0.05560	0.01881	-0.09681	-0.00344	0.01950	0.00034
WORDSABS	-0.09586	0.00002	0.02237	0.03690	0.30092	0.19430	0.23199	0.27798	0.15159
ORIGINAL	0.09422	0.10052	0.08688	-0.04970	-0.07363	0.06338	-0.11607	-0.05087	0.04590
ATTACH	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
PRESENT	0.01894	-0.03554	0.00666	0.00158	-0.06347	0.06362	0.11359	0.04393	-0.08490
VOICE	0.10251	0.10180	-0.11033	-0.09676	-0.16171	-0.04578	0.01574	-0.09953	0.02050
JARGON	0.26530	0.07635	-0.04682	0.26019	0.10043	0.06461	0.01028	0.01585	0.19050
DIRECTCI	-0.03349	0.23627	0.08866	0.02827	0.18353	0.25932	0.06255	-0.01145	0.03393
AUTHORCI	-0.01144	0.25099	0.17764	0.03309	0.13210	0.10919	0.01058	-0.03613	0.04115
FUNDING	-0.03603	0.07539	-0.15843	-0.09940	0.04331	-0.12063	-0.05498	-0.06783	0.03977
THEOCONC	-0.27055	0.04171	0.12074	-0.41727	-0.33322	-0.35969	-0.11809	-0.11092	-0.44985
ARCHHIST	0.15863	-0.08104	0.13185	-0.02003	-0.03841	-0.16649	-0.04433	-0.05469	0.01480
EMPIHARD	0.30535	-0.15533	-0.07417	0.50754	0.33990	0.47804	0.14776	0.15039	0.44566
ADMONPRE	-0.26365	0.13169	0.04532	-0.26045	-0.14842	-0.16649	-0.04433	-0.05469	-0.19241
METHO	-0.06114	0.04497	-0.07317	-0.00583	0.08336	-0.16364	-0.05162	-0.06368	-0.01293
DEDUCT	0.02963	0.23243	-0.02241	-0.02126	0.08707	0.07980	0.00196	-0.05258	0.06576
INDUCT	0.07233	-0.20570	0.18549	0.15352	0.13430	0.17920	0.05095	0.19119	0.08719
ARGUFLOW	0.24145	0.04124	0.09223	0.27381	0.22491	0.23426	0.18683	0.08951	0.26617
STATERES	1.00000	0.12878	0.01086	0.40465	0.25459	0.22194	0.05745	0.04842	0.35119
CUMULIT	0.12878	1.00000	-0.25962	-0.15424	0.00460	0.02471	-0.04041	0.06405	0.10795
DISCIPRE	0.01086	-0.25962	1.00000	0.01321	0.02878	-0.03165	-0.01096	-0.03324	-0.13722
DESIGN	0.40465	-0.15424	0.01321	1.00000	0.42117	0.49009	0.17762	0.11778	0.35582
DATA COLL	0.25459	0.00460	0.02878	0.42117	1.00000	0.53213	0.20434	0.16854	0.44191
INSTRU	0.22194	0.02471	-0.03165	0.49009	0.53213	1.00000	0.15930	0.20125	0.33449
RELIAB	0.05745	-0.04041	-0.01096	0.17762	0.20434	0.15930	1.00000	0.67272	0.02843
VALID	0.04842	0.06405	-0.03324	0.11778	0.16854	0.20125	0.67272	1.00000	0.03035
SAMPLE	0.35119	0.10795	-0.13722	0.35582	0.44191	0.33449	0.02843	0.03035	1.00000
TYPEANAL	0.37268	0.22174	-0.09513	0.18401	0.36799	0.40661	0.19584	0.30012	0.45825
RESULTS	0.72820	0.12810	-0.06375	0.29136	0.24865	0.23785	-0.00353	0.10359	0.32700
CONCLUS	0.48444	0.19149	-0.04974	0.07692	0.08272	0.02891	-0.01010	0.05916	0.04551
RESIMP	0.03805	0.01853	0.03892	-0.01066	-0.02323	-0.03662	0.07077	-0.00182	-0.16835
THEOIMP	0.13591	0.11571	-0.04537	0.01103	0.24030	0.12159	0.17895	0.09784	0.04481
FIELDIMP	0.21712	0.08917	0.05803	-0.02822	0.04549	-0.03366	0.15955	0.07702	-0.02084
FOUNDAT	0.17493	-0.04846	0.10914	-0.02338	0.19844	-0.03443	-0.06724	-0.08295	-0.00777
CHARAC	-0.02061	0.04480	0.16463	0.14971	0.20157	0.29990	0.00676	0.06307	0.22684
AGENCY	0.11511	-0.17580	0.00447	-0.17384	-0.02367	-0.17343	-0.09616	-0.00185	-0.16455
PROGPLAN	0.05686	0.13328	-0.14199	-0.03178	-0.00126	0.07962	0.01278	0.01232	0.00320
INSTRUC	-0.05566	0.00394	-0.11869	0.15597	-0.03262	0.07828	0.11120	0.13304	-0.03265
DISCIP	-0.11567	-0.00246	0.05443	-0.09730	-0.13873	-0.16203	-0.08611	-0.10623	-0.05175

	TYPEANAL	RESULTS	CONCLUS	RESIMP	THEOIMP	FIELDIMP	FOUNDAT	CHARAC	AGENCY	PROGPLAN
REJACCEP	0.24542	0.08036	0.01108	0.00249	0.03915	0.00527	0.30615	0.19236	-0.05075	-0.02536
YEAR	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
WORDSTIT	0.04706	0.09762	-0.16349	-0.10174	-0.06999	-0.19134	0.01565	-0.07223	0.13138	0.17599
WORDSABS	0.13888	0.07426	-0.00822	0.02710	0.09159	0.07243	-0.07547	0.21214	0.00935	0.06831
ORIGINAL	0.13776	0.12015	-0.04237	0.01650	0.06828	0.11646	0.09407	0.05675	0.13453	0.04471
ATTACH	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000	99.00000
PRESENT	-0.02189	-0.05718	-0.03726	0.05245	0.11827	0.04303	0.00115	-0.05741	0.09835	-0.03297
VOICE	0.08783	0.10696	0.17874	0.01465	-0.00782	0.01000	0.01533	-0.02166	0.06548	0.10241
JARGON	0.15252	0.14002	0.01170	-0.12187	-0.05107	-0.04083	-0.04194	0.01238	-0.13835	-0.05852
DIRECTCI	0.11203	-0.01568	0.01406	0.12553	0.23058	0.01656	-0.02264	0.24340	-0.16499	-0.09600
AUTHORCI	0.02041	-0.08088	-0.03574	0.09889	0.26066	0.07819	0.14552	0.22545	-0.13438	-0.08217
FUNDING	-0.11609	-0.12015	0.12712	-0.07425	0.09104	-0.08249	0.00724	0.07566	0.10090	0.01788
THEOCONC	-0.31704	-0.23106	0.01379	0.15626	0.17998	0.04832	0.15401	-0.09602	0.17074	-0.09603
ARCHHIST	-0.10233	0.09819	0.01139	0.03326	0.04129	-0.05281	0.16919	-0.07244	0.17626	-0.18744
EMPIHARD	0.40517	0.29812	-0.05314	-0.20399	0.01223	-0.08867	-0.01945	0.25925	-0.22898	0.05287
ADMONPRE	-0.12854	-0.15260	0.04555	0.03326	-0.05505	0.07042	-0.07584	-0.15250	-0.10846	0.11535
METHO	-0.14968	-0.14524	-0.05636	0.12006	-0.06410	-0.06150	0.01868	-0.10765	-0.04342	-0.08605
DEDUCT	0.05975	0.05192	-0.02870	0.06440	0.11316	0.04047	0.09362	0.25687	-0.07912	-0.17020
INDUCT	0.13686	0.07575	-0.02836	-0.04938	0.08173	0.06070	0.14194	0.09604	0.05195	0.06802
ARGUFLOW	0.21360	0.15969	0.05825	-0.04872	0.09010	0.10661	0.01886	0.05304	-0.14868	-0.00914
STATERES	0.37268	0.72820	0.48444	0.03805	0.13591	0.21712	0.17493	-0.02061	0.11511	0.05686
CUMULIT	0.22174	0.12810	0.19149	0.01853	0.11571	0.08917	-0.04846	0.04480	-0.17580	0.13328
DISCIPRE	-0.09513	-0.06375	-0.04974	0.03892	-0.04537	0.05803	0.10914	0.16463	0.00447	-0.14199
DESIGN	0.18401	0.29136	0.07692	-0.01066	0.01103	-0.02822	-0.02338	0.14971	-0.17384	-0.03178
DATA COLL	0.36799	0.24865	0.08272	-0.02323	0.24030	0.04549	0.19844	0.20157	-0.02367	-0.00126
INSTRU	0.40661	0.23785	0.02891	-0.03662	0.12159	-0.03366	-0.03443	0.29990	-0.17343	0.07962
RELIAB	0.19584	-0.00353	-0.01010	0.07077	0.17895	0.15955	-0.06724	0.00676	-0.09616	0.01278
VALID	0.30012	0.10359	0.05916	-0.00182	0.09784	0.07702	-0.08295	0.06307	-0.00185	0.01232
SAMPLE	0.45825	0.32700	0.04551	-0.16835	0.04481	-0.02084	-0.00777	0.22684	-0.16455	0.00320
TYPEANAL	1.00000	0.45761	0.08726	-0.05396	0.06045	0.08261	0.08023	0.24341	-0.12250	0.08493
RESULTS	0.45761	1.00000	0.34845	0.07926	0.12345	0.08410	0.07416	0.06577	0.10723	-0.00957
CONCLUS	0.08726	0.34845	1.00000	0.07423	0.12537	0.14434	-0.02259	-0.05383	0.06176	0.15106
RESIMP	-0.05396	0.07926	0.07423	1.00000	0.15196	0.11710	-0.06364	-0.06898	-0.07937	0.02398
THEOIMP	0.06045	0.12345	0.12537	0.15196	1.00000	0.16798	0.18627	-0.03568	0.08956	-0.03969
FIELDIMP	0.08261	0.08410	0.14434	0.11710	0.16798	1.00000	0.04930	-0.14229	0.06365	0.17515
FOUNDAT	0.08023	0.07416	-0.02259	-0.06364	0.18627	0.04930	1.00000	-0.11922	0.30058	-0.23133
CHARAC	0.24341	0.06577	-0.05383	-0.06898	-0.03568	-0.14229	-0.11922	1.00000	-0.33082	-0.12149
AGENCY	-0.12250	0.10723	0.06176	-0.07937	0.08956	0.06365	0.30058	-0.33082	1.00000	-0.03715
PROGPLAN	0.08493	-0.00957	0.15106	0.02398	-0.03969	0.17515	-0.23133	-0.12149	0.03715	1.00000
INSTRUC	-0.02817	-0.03822	-0.13298	-0.10357	-0.02857	-0.04873	-0.11354	-0.02375	-0.15481	-0.39849
DISCIP	-0.15806	-0.07991	-0.04424	0.11888	-0.05079	-0.12653	-0.14733	-0.24958	-0.15539	-0.27589

	INSTRUC	DISCIP
REJACCEP	-0.17192	-0.03781
YEAR	99.00000	99.00000
WORDSTIT	-0.20338	0.09630
WORDSABS	-0.11266	0.08005
ORIGINAL	-0.08047	-0.04819
ATTACH	99.00000	99.00000
PRESENT	0.04143	-0.04863
VOICE	0.00276	-0.10071
JARGON	0.7152	-0.06307
DIRECTCI	0.06865	-0.09678
AUTHORCI	-0.04215	-0.09787
FUNDING	0.00537	-0.03614
THEOCONC	-0.09113	-0.01176
ARCHHIST	-0.11677	0.20882
EMPIHARD	0.06632	-0.12950
ADMONPRE	-0.02595	0.10684
METHO	0.02266	0.24317
DEDUCT	0.05335	-0.21513
INDUCT	-0.17896	-0.01209
ARGUFLOW	0.06849	0.00874
STATERES	-0.05566	-0.11567
CUMULIT	0.00394	-0.00246
DISCIPRE	-0.11869	0.05443
DESIGN	0.15597	-0.09730
DATA COLL	-0.03262	-0.13873
INSTRU	0.07828	-0.16203
RELIAB	0.11120	-0.08611
VALID	0.13304	-0.10623
SAMPLE	-0.03265	-0.05175
TYPEANAL	-0.02817	-0.15806
RESULTS	-0.03822	-0.07991
CONCLUS	-0.13298	-0.04424
RESIMP	-0.10357	0.11888
THEOIMP	-0.02857	-0.05079
FIELDIMP	-0.04873	-0.12653
FOUNDAT	-0.11354	-0.14733
CHARAC	-0.02375	-0.24958
AGENCY	-0.15481	-0.15539
PROGPLAN	-0.39849	-0.27589
INSTRUC	1.00000	-0.12098
DISCIP	-0.12098	1.00000