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Toward the development of a construct of faculty scholarship

Sundre, Donna L., Ed.D.

The University of North Carolina at Greensboro, 1989

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TOWARD THE DEVELOPMENT OF A CONSTRUCT OF FACULTY SCHOLARSHIP

by

Donna L. Sundre

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
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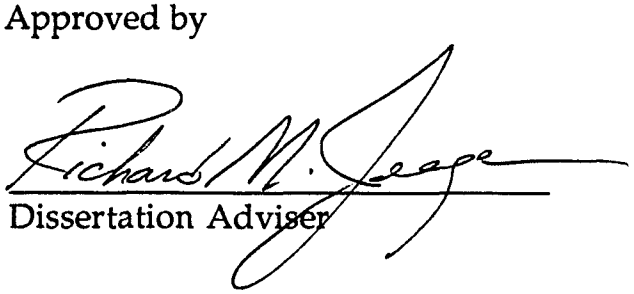
Approved by



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APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

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SUNDRE, DONNA L., Ed.D. Toward the Development of a Construct of Faculty Scholarship. (1989) Directed by Dr. Richard M. Jaeger. 291 pp.

The purpose of this study was to investigate and clarify the nature and form of faculty scholarship. The two major stages of the study involved: (1) specification of the content domain of faculty scholarship, and (2) identification of the dimensions of faculty scholarship and exploration of relationships between these dimensions and other variables.

The first stage of the study, in which the content domain of faculty scholarship was specified, involved the participation of 50 faculty members from the University of North Carolina at Greensboro. Participants nominated individuals they considered scholarly, and described the characteristics that prompted them to consider their nominees scholarly. Through these descriptions, an extensive listing of the components of scholarship was formulated.

The second stage of the study pursued three research objectives: (1) identification of the dimensions and components of faculty scholarship, (2) exploration of relationships between the identified dimensions of faculty scholarship and various socialization components (i.e. adult professional socialization, individual factors, and current-institutional factors), and (3) identification and discrimination of modal role conceptions of faculty scholarship. Surveys were sent to all full-time faculty assigned to academic units; a 66% response rate resulted. Four significant dimensions of faculty scholarship were revealed through principal components analysis: (1) Pedagogy, (2) Publication and Professional Recognition, (3) Intellectual Characteristics of Scholarship, and (4) Creative and Artistic Attributes of Scholarship. Factor scores were computed for all respondents. Respondents

were randomly divided into two equal-sized samples and hypothesis tests were conducted independently for both samples; significant results that were replicated across both samples were considered reliable and significant. Few of the socialization factors had significant explanatory effects on the factor scores. Using cluster analysis, groups of faculty that shared similar profiles in their conceptions of faculty scholarship were identified. Four clusters were identified in each of the two replicate samples. Multivariate discriminant analysis indicated that clusters could be discriminated on the basis of linear combinations of socialization variables. These results were replicated across both samples. Three pairs of clusters with an element in each replicate sample shared a distinct factor score mean profile.

ACKNOWLEDGEMENTS

A dissertation is very much like a mountain peak. When viewed from a distance, it appears beautiful; it beckons to the adventurous climber. When the journey is underway, the view is often quite different; the mountain is now larger; the journey is long; the grade is steep; unforseen barriers impede progress. Guides are necessary. I was fortunate to have the guidance of able mentors on this long and perilous journey.

This study focused on the topic of faculty scholarship. It is no accident that the topic was selected; I have been blessed with generous mentoring by a number of gifted scholars and human beings. Surely my choice in topic is a reflection of the influence of Richard Jaeger and Elisabeth Zinser. Elisabeth taught me an institutional perspective and a true respect for the work of all faculty. Dick showed me that educational research is a craft that we continually strive to improve. I want to thank the members of my dissertation committee for their unflagging support and diverse contributions....Jack Bardon, Dale Brubaker, Dave Ludwig, and Don Reichard.

The University of North Carolina at Greensboro is an excellent university with a superb library, computer center, and learning resource center; my thanks is extended to all the people that helped me so much.

And finally, my dear Jim, and my wonderful friends. All of you have helped me to achieve the completion of a very challenging and arduous journey. Anita, Jackie, Lee and Casey, Bede, Barry, Buzz...with your help, I scaled that mountain peak and saw the beautiful vista I had dreamed of.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The occupation of "college professor," as perceived by the general public, claims high prestige in American society. The profession generally ranks among the top ten in status, a position comparable with such occupations as cabinet member, attorney, and congressional representative (Hall, 1969; Hodge, Siegel, and Rossi, 1964; Landecker, 1981). The status enjoyed by the profession is closely associated with an image of wisdom, service to society that few are chosen to perform, a lifestyle in pursuit of knowledge, and scholarship (Richman and Farmer, 1974). Despite the centrality of scholarship to the publicly perceived role of the college professor and sustained research interest in the faculty cohort, the nature and form of faculty scholarship is difficult to ascertain from the literature of higher education.

It is the goal of the proposed study to investigate and clarify the nature and form of faculty scholarship through (1) the identification of the dimensions and components of faculty scholarship, (2) the exploration of relationships between the identified dimensions of faculty scholarship and various socialization components (i.e. adult professional socialization, individual factors, and current-institutional factors) and, (3) identification and discrimination of modal role conceptions of faculty scholarship.

The balance of this chapter contains an overview of the context that movitated the proposed study. Sections of the overview are titled:

Deficiencies in Research in Higher Education, Deficiencies in Research Focused on the Faculty Cohort, Deficiencies in Research on Faculty Scholarship, Construct Validity and Construct Validation, Role Theory, Adult Socialization and the Professions, Socialization of Faculty, and Purposes and Procedures of the Study.

Deficiencies in Research in Higher Education

Research with higher education as its focus has been the target of heavy criticism for many years, and much of this criticism has been directed toward lack of relevance of the research, the absence of systematic research, and the neglect of theory development. Keller (1985, 1986), a consistent critic of research in higher education, has challenged the field to address issues of importance, applicability, and interest, and has encouraged researchers to liberate their explorations from dependence upon a few favored methodologies. Leslie and Beckham (1986) have lamented the lack of development of systems of basic principles and the neglect of systematic inquiry and critical analysis of systems of knowledge. Peterson (1985, 1986) has repeatedly referred to the developmental stage of research in higher education as "adolescent" and decried the dearth of original theory development. Leslie and Beckham (1986) observed, "We have probably done little more than collect and categorize an eclectic array of ideas to make them accessible." (p. 124) and referred to the isolation from the pure disciplines and the community of practitioners as evidence of the field's solipsistic tendencies. Keller (1986) has concurred with Peterson's references to the adolescence of higher education research but has noted that the "confusion, clumsiness, and semi-formed notions" characteristic of the stage are also

attended by "growing strength and promise." (p. 129). Thus, with increased attention to the careful design of research questions to test and refine existing knowledge, research within the field of higher education can and should mature to contribute to a systematic knowledge base and the development of theory.

Deficiencies in Research Focused on the Faculty Cohort

The commentary directed toward research in higher education is equally applicable to the more specialized area of research within higher education pertaining to the study of faculty. Research focused on college and university faculty has also suffered from the absence of constructual clarity and theoretical frameworks upon which comparable and systematic research can be built. The commonly fragmented, idiosyncratic, and uncoordinated nature of the studies conducted has not contributed to the direct or systematic acquisition of knowledge. Clarity in the construct(s) being studied is considered prerequisite to the development of a body of theory in the field. As Light (1974) indicated, in reference to the arbitrary use of terms in the study of the professoriate,

> "So long as one does not know *what* one is studying, one cannot develop a body of theorems or organize good research. " (italics in original. p. 3)

The prerequisite nature of conceptual clarity to the pursuit of sound research is underscored through this observation. Light concluded that research ignoring definitional clarity impairs progress in the field by limiting the comparability of research over time and ignores the basic concepts underlying the research.

Deficiencies in Research on Faculty Scholarship

Faculty scholarship is an area of inquiry that has met with continued, though uncoordinated, research interest in higher education. Consensus regarding a construct of faculty scholarship, or methodologies for its study, has yet to be established. The specification of faculty scholarship has not yet been addressed directly or comprehensively. Much of the study undertaken has historically been directed toward two rather specialized objectives: (1) the identification of predictors of research productivity, and (2) the relationship between research productivity and teaching effectiveness. As a direct result of these limited study objectives, the research pertaining to faculty scholarship has typically limited its measurement to a few easily quantified variables, such as a count of published, refereed papers or a total of grant dollars awarded. Such measures would have been justified if the dependent variables under study had been termed, "research publication" and "grant dollar acquisition;" unfortunately the studies were not so labeled. There have been two regrettable consequences of these lines of research: (1) a proliferation of ambiguous terms that refer to studies of this nature, and (2) a significant disparity between that which was measured and the complex phenomenon the measurements were said to represent.

The research investigations pertaining to research productivity have been labeled as studies of "scholarly productivity," "academic productivity," "scholarly activity," "research," "publication," "scholarship," or "faculty scholarship" to name a few. The reader is reminded that the stated objectives of each study were limited, and measurement was consequently narrow. The terms used to describe the studies were far more comprehensive and

expansive than the measurement procedures employed. Over time, as an identifiable body of literature developed, the ambiguity of terms became more marked. It also became apparent that the assumption had incorrectly been made by many investigators that consensus as to what these terms mean had been obtained. The lack of precision in definition and comprehensiveness characteristic of studies pertaining to what is here broadly termed "faculty scholarship" had not gone unnoticed, just unheeded.

Although a need for greater clarity in definitions was identified by McGrath in 1962, the response has been continuing and disappointing neglect of specification of terms that has been accompanied by continued calls for clarity and comprehensiveness of assessment techniques (Braxton, 1980; Braxton and Bayer, 1986; Braxton and Toombs, 1982; Creswell, 1985; Finkelstein, 1984; Kirschling, 1979; Pellino, Blackburn, and Boberg, 1984; Reagan, 1985; Webster and Conrad, 1986). For example, Creswell (1985) identified the excessively narrow measures employed to assess research productivity; Reagan (1985) stressed the need for conceptual clarity regarding the nature of academic productivity in the evaluation of the professoriate; Webster and Conrad, reviewing studies of academic quality rankings, indicated that current measures fail to cast a net broad enough to capture the many forms of research in which faculty engage; and Braxton and Bayer (1986) have reiterated the need for differentiation and clarity in defining terms related to faculty "scholarly activities," "research,"and "publication." It has been observed that the terms employed are rarely defined by the researchers conducting studies or for the subjects participating in the investigations (Finkelstein, 1984). Such a condition is troublesome when

encountered in any method of inquiry. It is particularly problematic in survey research, in which participants' responses are analyzed and interpreted as though a single representation of each question was provided to all respondents. When multiple meanings, or ambiguous terms, are used in survey questions, the possibility of individuals responding to essentially different questions is perilously high, consequently jeopardizing the substantive generalizability (Jaeger, 1984) of survey results.

On the few occasions a definition of faculty scholarship has been provided, it has usually been implied through the operationalization of a variable for the collection of data. Scriven (1988) has warned of the dangers inherent in substituting the outcome of a limited measurement procedure for a very complex construct. Faculty scholarship, when appropriately considered a more global concept that extends well beyond the publication of papers or grant funding, must surely be considered one of the more complex constructs confronting administrators and educational researchers. Such constructs require conceptual clarity sufficient to enable researchers to develop more sophisticated and valid assessment procedures than the enumeration of publications. It was concern for just such an expanded construct of scholarship that prompted recent researchers (Braxton, 1980; Braxton and Bayer, 1986; Braxton and Toombs, 1982; Pellino, Blackburn, and Boberg, 1984) to reconsider and reevaluate the premises and research methods employed to assess faculty scholarship. In essence, due to the lack of development of conceptual clarity in the definition of faculty scholarship, researchers were forced to attend to Light's caution by returning to the basic question underlying the research. In the area of faculty scholarship, the basic question

underlying the research is, "What is faculty scholarship?". The question has yet to be directly posed, though fragments of possible responses can be found in the literature.

The literature pertaining to research on faculty scholarship can be divided into two primary phases. The earlier phase of investigations focused largely on "research productivity," its prediction and relationships with other variables or constructs. As noted earlier, these studies spawned a variety of ambiguous terms describing their content and purposes. A more recent trend in this literature is characterized by studies attempting to respond to pleas for conceptual clarity and validity. The more recent cadre of researchers has attempted to expand and clarify the definition of faculty scholarship beyond the enumeration of published articles and books to include activities related to the conduct of research as well as activities reflecting academic work pertaining to teaching, and service to the institution and community. The latter work has relied extensively on investigating the nature and classification of activities in which faculty engage, the frequency with which faculty engage in these activities, and the perceived importance faculty attribute to the activities as components of their scholarly role. Two assumptions are implied by the research procedures described above: (1) the faculty activities identified by the researcher can adequately represent faculty scholarship, and (2) faculty engagement in sufficient numbers of these activities renders the activities scholarly. The research to date has demonstrated differentiation of faculty activities across various classifications, such as "research," "pedagogy," and "creative activities" (Braxton and Toombs, 1982; Pellino, Blackburn, and Boberg, 1984). The research has also

provided a clear indication that faculty consider many nonresearch activities to be scholarly (Pellino, Blackburn, and Boberg, 1984). It has been noted (Reagan, 1985) that the enumeration of frequency of faculty engagement in identified activities does not begin to address the more substantive issue of the role of quality within the schema of faculty scholarship. Therefore, despite these contributions to the current understanding and formation of a construct, a clear and comprehensive depiction of faculty scholarship has yet to emerge.

Construct Validity and Construct Validation

The progress of the research to date suggests that a fundamental definition of and appropriate criteria for judging faculty scholarship have yet to be specified. Such a condition necessitates consideration of construct validity. As Cronbach and Meehl (1955) noted in their elaboration of the, at the time, new concept,

> "construct validity must be investigated whenever no criterion or universe of content is accepted as entirely adequate to define the quality measured. "(p.282)

The empirical research focusing on faculty scholarship and the reactions to that research have indicated limited success and subsequent dissatisfaction with both the definition of content and the limited criteria used to assess faculty scholarship. Again the basic question underlying the research has surfaced, "What is faculty scholarship?".

In essence, the questions posed by the construct validity issue are: "Does the outcome of the measurement procedure inform us about the magnitude of the construct, in this case, faculty scholarship, we are attempting to assess?"; and "Are the inferences and interpretations

researchers and others make about the construct warranted?". A construct has been defined as, "some postulated attribute of people, assumed to be reflected" by the outcome of the measurement process (Cronbach and Meehl, 1955, p. 283). When the outcome of the measurement process is interpreted to represent some quality that is not "operationally defined," or readily observable, construct validation is called for. When constructs are validated, it is the underlying attribute and inferences based on the attribute that are of interest, not the score or outcome of the measurement process. Construct validation, therefore, requires ongoing evidence from many sources to substantiate a theory-based claim that the underlying attribute has been assessed and that inferences based on the attribute are indeed appropriate.

Evidence of construct validity is accumulated through the generation and subsequent testing of hypotheses which confirm or disconfirm theory-based expectations regarding the construct. Cronbach and Meehl (1955) have recounted the philosophy of science fundamental to the logic of construct validity and have described the process as the formation of a nomological net, an "interlocking system of laws constituting a theory" (p. 290). Such a system outlines the nature of the attribute under study in a manner suggestive of testable hypotheses. Cronbach (1971), using ego strength as an example of a construct, has stated that,

> "If the test score is a valid manifestation of ego strength, so conceived, its relations to other variables conform to the theoretical expectations." (p. 463).

Therefore, the process of construct validation would require a complete theoretical system that had endured numerous tests to all vital linkages comprising the nomological network. Such a condition has yet to evolve for

many constructs, and faculty scholarship is one of these. At this stage of the development of a construct here termed "faculty scholarship," a nomological network has not been proposed; however, the developing literature regarding faculty scholarship has suggested a variety of role theory components, or socialization contexts, such as adult professional socialization experiences and current-institutional factors, around which expectations can be formed.

Our purpose in exploring expectations here should not be construed as the testing of linkages within a nomological network, since no formal network will be proposed in this study. However, results inconsistent with expectations recommended by the literature would suggest that the construct examined in the study is not faculty scholarship. In essence, evidence disconfirming the construct assessed as faculty scholarship may surface; however, the same evidence, although contributory, will not be sufficient to confirm or validate a construct of faculty scholarship. As noted earlier, the process of construct validation is ongoing and requires a great many confirming investigations that successfully link the underlying attribute to observable phenomena, or to other constructs, to warrant the construct useful to the profession. The assessment of relationships between dimensions of faculty scholarship and components of role theory will serve to explore potential linkages for a developing nomological network.

The literature regarding faculty research productivity and its predictors has provided several indications that components of role theory may assist in explaining variance in faculty productivity. For example, Creswell (1985), in his review of the literature on faculty research performance, recommended that future investigations consider more carefully the correlates of the work

environment. His review led him to suggest that the work environment, subtle socialization processes, and career stages have an impact on individual performance, but that knowledge is limited regarding these relationships. Dill (1986) suggested that factors in the culture of the work setting, such as time allocations, individual values, departmental and college policies, disciplinary memberships, and academic rank, represent powerful contributors to individual faculty research productivity. It has been observed that substantial differences in disciplinary norms and values impact both the extent and modes of professional communication faculty engage in, which, in turn, influence preferences for publication type and orientations toward other scholarly activities (Light, 1974). It would thus appear reasonable that components of role theory such as work environment, socialization, discipline, and career stage would impact not only faculty research performance but other potential aspects of faculty scholarship as well. Given a more comprehensive definition of faculty scholarship, the established theoretical structure of role theory would appear to be a fruitful framework for illuminating potential theoretical linkages.

Role Theory

Role theory has received extensive attention throughout the social sciences, since it provides a crucial connection between psychology, sociology, and anthropology (Levinson, 1959). Role theory posits the individual within a social framework in recognition of the multiplicity of factors influencing human behavior. Some of the factors affecting individual behavior include the individual's personality, capabilities, and understanding of what behavior should be; the performance of others; and socially and organizationally

patterned norms and expectations. As Thomas and Biddle (1966) have noted, individual variations in performance occur, but are expressed in role theory within a framework that highlights the social determinants that influence such differences.

Levinson (1959), in his now classic examination of the role concept, suggested that organizations, such as hospitals, prisons, or schools, provide a uniquely appropriate setting for the study and application of role theory, since they are small enough for empirical study, yet complex enough to allow diversity in social positions and role-standardizing forces. Levinson illustrated that the role concept was not unitary, and suggested that additional conceptual labels were necessary to clarify the multiple meanings that had evolved. Toward this end, he differentiated three aspects of social role: (1) role demands, (2) role conception, and (3) role performance. Each of these aspects of social role will be examined briefly.

Levinson (1959) described role demands as structurally provided situational pressures that are external to the individual. Role demands were characterized as being explicit as well as implicit, often lacking a high degree of explicitness or consensus, though both explicitness and consensus are commonly assumed. Levinson contended that structural norms may be contradictory as defined by organizational charter and "informal" norms. Role demands and their definitions have ranges of specificity that cover a spectrum of expectations from "strongly required," to various degrees of "acceptable," to recognition of that which is clearly taboo. Organizations differ greatly in regard to the range of this spectrum, and the greater the range, the greater the latitude in personal choice for individuals within the

organization. The coherence among organizationally defined role requirements, the degree of consensus with which they are held, and the degree of individual choice allowed determine opportunity for individual selection among existing norms and for creating new norms.

Role conception and role performance, as Levinson (1959) delineated them, are both components of role adaptation that take place within the individual. Role conception was defined as an individual's ideational orientation to a given role, while role performance describes an individual's behavioral pattern toward the role. Role conception "delineates the specific functions, values, and manner of functioning appropriate to one position" (p. 176) within the organization. Role conceptions vary across individuals, although moderate consensus and congruence with role definitions is thought to maintain structural stability.

Of particular interest to the current study is the observation made by Levinson (1959) that when one or more commonly held role conceptions can be identified, modal types may be spoken of. It has been shown that members in particular organizational positions often have discrepant conceptions of roles, and these variations may be explained by the many sources contributing to the development of role conception other than the immediate organization: childhood experiences, values and personality, formal education, apprenticeships, and reference groups. Processes and factors contributing to the learning of roles have generally been referred to as socialization factors in the role theory literature.

Role performance has been described as the overt behavioral aspect of role-definition. As the occupant of a social position, each individual is

empowered to choose among various alternatives regarding modes and levels of performance. Role performance has been considered the result of many contributing factors, personal as well as organizational. Several modal types of role performance have been found in most studies, rather than a single dominant type.

One of the major obstacles in empirical research on role performance has been the formulation of adequate variables for its assessment. This difficulty is considered a major theoretical problem for the application of role theory (Levinson, 1959). As described earlier, the inadequacy of variables used in the assessment of faculty scholarship has also been identified within the literature of the field of higher education as an important challenge for the evaluation of faculty. It would seem essential to identify major and modal role conceptions prior to attempting role performance assessment. This strategy will be employed in the proposed study.

Rather than attempting to clarify the ambiguous and potentially controversial aspects of role demands or role performance, the underlying research issue of role conception of faculty scholarship will be addressed. The identification and definition of faculty members' conceptions of scholarship as a component of the role of faculty member at a Doctoral Granting II institution (Carnegie Commission on Higher Education, 1987) is the primary goal of the proposed study. The perceived socialization of faculty toward their scholarly role, and institutional characteristics which might influence their situation, will be explored to further illuminate relationships and potential theoretical linkages of faculty scholarship with role theory.

Adult Socialization and the Professions

Socialization has often been treated as a process taking place predominantly in childhood, a process through which children learn the expectations and behaviors considered appropriate in a wide variety of settings. In recognition of the fact that adult roles require additional preparation (Brim, 1966), adult socialization has become a specialized area of study within the social sciences and within the area of role theory in particular, although it has not received the attention some authors have contended it is due (Dion, 1985).

Dion (1985) has suggested that the limited research attention directed toward adult socialization has been largely focused on the study of role-related functioning, a major feature of adult socialization research in sociology and life-span development in psychology. Brim (1966) has defined socialization as "the process by which persons acquire the knowledge, skills, and dispositions that make them more or less able members of their society" (p.3). Socialization has been presented as an ongoing and social process (Bess, 1978). Brim (1966) further distinguished between early and late socialization by suggesting that childhood socialization was related to the adoption of fundamental values, while adult socialization focused on role-related behaviors that were primarily limited to specific role contexts. However, other contributors have suggested that entry into a profession involves socialization into a separate community that exists within a larger society (Goode, 1957). Induction into the professional community has been described as involving the adoption of much more than role-related behaviors. Goode (1957) has suggested that professional socialization includes: a sense of identity, shared values, congruent role definitions, common language, power

over members, production of the next generation of members through control of their selection, and training through an adult socialization process. Barber (1963) included the following components: generalized knowledge, primary orientation to the community of interest, internalized code of ethics, and rewards which primarily symbolize work achievement. Merton, Reader, and Kendall (1957) stated in their studies of medical students, that socialization

> "refers to the process through which (the student) develops his professional self, with its characteristic values, attitudes and knowledge and skills, fusing these into a more or less consistent set of dispositions which govern his behavior in a wide variety of professional (and extra-professional) situations. (p. 287)"

Merton, et al. suggested that students gradually move from apprentice to professional as they gather the necessary skills, knowledge, and attitudes. Support for this conception has come from the work of Simpson (1967), in which significant changes in student nurses were reported in their first year and a half of graduate school. Other authors (Becker, Geer, Hughes, and Strauss, 1961; Bess, 1978) have contended that the socialization process continues well beyond formal educational training into the stage in which initiates have been formally accepted as members of a professional community.

Bess (1978) has stated that, for professionals entering the community of faculty, the educational and socialization process continues throughout the untenured years of the career. Bess stated that it is during this time that faculty are more fully socialized through the internalization and integration of the norms and values, more than the skills, of the profession and the

institution. McGrath (1959) has noted that of all professions, only college teaching requires advanced training that bears so little resemblance to future practice. There has been some evidence suggesting that the process engaged in during faculy members' early career years might best be described as "resocialization" where erroneous impressions of the role that were previously formed are corrected (Van Maanen, 1976; Wheeler, 1966). The proposed exploration of relationships between the dimensions of faculty scholarship and the components of various socialization contexts (i.e. adult professional socialization, individual factors, and current-institutional factors) will shed new light on these issues.

Purposes and Procedures of the Study

The objective of the research study was three-fold: (1) to make explicit faculty members' conceptions of a construct of faculty scholarship, (2) to determine if the components of various socialization contexts (i.e. adult professional socialization, individual factors, and current-institutional factors) could explain variance in faculty members' role conceptions of faculty scholarship, and (3) to define and differentiate the modal role conceptions of faculty scholarship. More specifically, faculty members' conceived definition of the construct of faculty scholarship was developed as the primary goal of the study. The established theoretical framework of role theory was then applied to test its usefulness in explaining variance in faculty scores on operational factors derived from their conception of the construct of faculty scholarship. Finally, given meaningful factors were derived from conceptions of the construct of faculty scholarship, modal role conceptions

were explored through cluster analysis of factor scores. Each of these research objectives will be briefly described.

This study built upon previous research through the application of a multi-stage data collection procedure for the determination of faculty members' conceptions of faculty scholarship. The assumption was not made that the activities faculty engage in represent scholarship. In the first stage of data collection, a representative sample of faculty of a comprehensive doctoral-granting institution was requested, through survey and interview procedures, to propose the components of faculty scholarship. Faculty participants were requested to name individuals they consider to be scholars and to suggest the qualities, characteristics, and attributes prompting them to consider the individuals scholarly. In this way, components of scholarship other than publications, grant dollar acquisition, and activities in which faculty engage, were identified. The objective of this procedure was to induce clarity regarding the meaning of faculty scholarship by purposefully enlarging the potential set of elements contributing to the construct's development.

The study was designed to contribute to progress in the specification of the meaning of faculty scholarship by eliciting from faculty their conception of faculty scholarship. For the first time in research regarding faculty scholarship, faculty members themselves generated the components and dimensions of faculty scholarship. In the second stage of data collection, faculty assigned weights to the identified components of scholarship in relation to their perceived importance within their role conception of faculty scholarship. These weights were factor analyzed to identify the dimensions of

faculty scholarship and individual components contributing to each of the dimensions of faculty scholarship.

The proposed study contributed to the existing knowledge base by determining whether loci of socialization derived from role theory (i.e. adult professional socialization, individual factors, and current-institutional factors) could explain variance in role conceptions of faculty scholarship. If significant variance in factor scores derived from the dimensions of faculty scholarship was explained through role-theory-based components of socialization such as adult professional socialization, individual factors, and current-institutional factors, testing of the limited nomological network described as part of the construct validation process had been initiated.

In addition, the factor scores derived from the dimensions of faculty scholarship were cluster analyzed to identify modal role conceptions of faculty scholarship. The identified modal role conceptions of faculty scholarship were further analyzed to determine the linear combination of components derived from role theory, identified as adult professional socialization, individual factors, and current-institutional factors, that could best discriminate among faculty members' modal conceptions of the role of scholar. This discriminant analysis provided additional bases for formation of a nomological network that will contribute to the further development of a theory of faculty scholarship.

Thus, the study was designed to define the conceptions of scholarship held by faculty at a doctoral-granting institution of higher education. The study was specifically intended to identify the perceived dimensions of faculty scholarship and the components contributing to each dimension. The

concept of faculty scholarship was further clarified through the exploration of relationships among the dimensions of faculty scholarship and the components of various socialization contexts (i.e. adult professional socialization, individual factors, and current-institutional factors). The nature and character of modal role conceptions of faculty scholarship at the institution was examined through a cluster analysis of factor scores derived from the dimensions of faculty scholarship, and, finally, a discriminant analysis of the modal role conceptions further delineated these role conceptions by identifying the linear combination of socialization factors that best differentiated the clusters.

The remaining chapters present more fully the details of the dissertation study. Chapter II summarizes the relevant literature pertaining to faculty scholarship and the application of role theory to the faculty cohort. Chapter III describes the methodology for pilot testing, sampling, data collection, and data analyses. Chapter IV reports the results of data analyses, and Chapter V provides a discussion of the results of the data analyses.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

The purpose of this chapter is to review the relevant literature pertaining to two areas of research in higher education: (1) research on faculty scholarship, and (2) role theory. The first section describes three overlapping areas of research: (1) the identification of factors related to publication productivity; (2) the relationship between teaching effectiveness and publication productivity; and (3) emerging trends in the reconceptualization of faculty scholarship. The second section of the chapter describes role theory, and includes subsections pertinent to: (1) the antecedents of role theory; (2) the role concept; (3) socialization; (4) occupational and professional socialization; and (5) faculty socialization.

Research on Faculty Scholarship

A considerable amount of research on what is here termed faculty scholarship has been conducted by specialists in psychology, sociology, and higher education. Three overlapping areas of research have resulted; each of these components of research pertaining to faculty scholarship is examined in separate subsections entitled: (1) Identification of Factors Related to Publication Productivity; (2) The Relationship between Teaching Effectiveness and Publication Productivity; and (3) Emerging Trends in the Reconceptualization of Faculty Scholarship. The first section examines the historical roots from which the study of faculty scholarship eventually emerged. This section summarizes the literature in which the prediction, understanding, and promotion of scientific progress was the fulcrum. This is

the same artery of research that stimulated what was later to become the sociology of science. The second section relates the search for relationships between research productivity and teaching effectiveness. The position that research enhances teaching quality represents one of the most dominant and persistently held values in higher education. The third segment describes recent attempts to broaden the conceptual definition of faculty scholarship to include components of faculty activities, processes, and products beyond the traditional assessments of research productivity.

Identification of Factors Related to Publication Productivity

Prediction and description of factors that promote research productivity have been the objectives of many research efforts. There have been more than 90 studies conducted since 1940 in which research performance has been assessed (Fox, 1983). Despite more than 50 years of sustained interest in the prediction of research productivity, the tremendous variation observed in research performance and productivity of faculty members remains largely unspecified (Cole and Zuckerman, 1984). Further, the measures used to assess research productivity remain vague (Creswell, 1985). This stream of research has had a long lasting influence on the definitions, orientations and methodologies used in studies investigating faculty research productivity. The historical context from which this research emerged provides a useful framework for understanding the immediate significance associated with research results in this area.

In the immediate post-sputnik era, a great deal of research attention was focused on the identification of factors associated with progress in scientific research. Significant federal expenditures in research and

development were made during these years, and faculty members employed at major universities were the recipients of a great deal of the federal largesse. Research grant dollars were invested in studies, largely in the sciences, that investigated the explanatory power of characteristics of productive scientists and their work environments as predictors or research productivity.

Many of the scientists that were studied in these early investigations worked within the nation's major institutions of higher education. The rise of technology, the information explosion, and the ascent of the modern research university were all closely related. These research efforts relied heavily on easily quantified indicators of research productivity, such as the number of published articles in professional, refereed journals, citation counts, or a total of grat dollars awarded, as criterion variables. Early studies focused largely on the research productivity of faculty in scientific disciplines, because these were the areas of greatest interest to the federal government. The objectives of these studies were limited; consequently, the definitions and measurement procedures employed were narrow. However, a precedent was established in the literature for employing limited assessment methods, such as publication counts, as indicators of faculty research productivity.

Extensive and sustained interest in the study of factors associated with scientific progress spawned two related lines of research: (1) studies of environmental factors, and (2) the sociology of science, a more comprehensive body of research that explored the structural and sociological contexts of scientific progress. These areas of study represent natural extensions and refinements of the research that preceded them. Both will be described.

A great deal of interest was placed on the understanding and control of environmental and organizational factors associated with scientific progress. Environmental and organizational factors were considered of primary importance since these could be most easily manipulated and controlled. As these studies yielded very little in the way of strong predictionof scientific productivity, the search for explanatory factors was broadened to include personal characteristics of scientists, experiential factors (Pelz and Andrews, 1966), communication networks, significant reference groups, critical mass of scientists, autonomy, the balance of teaching and research, and many other variables. Pelz and Andrews (1966), in a six year effort, studied the impact of a large number of factors on high research performance. Findings from this study revealed few surprises; the study concluded that productive scientists were confident in their ideas, highly motivated, and intellectually self-reliant.

Merton, generally recognized as the father of the sociology of science, embarked on the study of the social structure of organizations and the orientations characterizing individuals employed within them. Merton inspired continued study by colleagues and many of his students. Crane, 1965) studied research productivity and scholarly recognition; Zuckerman (1977) studied Nobel laureates; Cole and Cole (1973) studied the social stratification in the sciences; Gaston (1978) described reward systems for scientists; Hagstrom (1965) described scientific communities; Merton and Gaston (1977) investigated the nature of competition among scientists, the reward structure, scholarly refereeing, the norms associated with scientific work, and inequality in scientific performance. Although Merton, his associates, and their predecessors had focused their study on research

productivity in the sciences, eventually these research efforts spread to the study of other academic areas.

Four unfortunate consequences resulted from the extension of this specialized area of research to other subject matter areas: (1) the use of limited criteria, such as frequency of publication, were established in the literature as acceptable indicators of scholarship, (2) a proliferation of ambiguous terms that refer to studies of this nature was produced, and (3) a significant disparity between that which was measured and the complex phenomena the measurements were said to represent became apparent, and (4) the limited methodologies, ambiguity of terms, and disparity between that which was measured and the complex constructs they were to represent were generalized from the sciences to virtually all disciplines and fields represented in higher education.

The research pertaining to faculty scholarship has, until quite recently, been severely hampered by limitations in definitiona nd measurement. As stated earlier, the historical precedents established in earlier research has resulted in the continued use of narrow assessment methodologies. While the use of limited methodologies appeared justified for the assessment of "research publication," the generalization of this strategy to studies exploring constructs such as "scholarly productivity," "academic productivity," "scholarly activity," "research," "publication," "scholarship," and "faculty scholarship" may not have been warranted. The terms used to describe the research studies were far more comprehensive in nature than the measurement procedures employed. The lack of precision in terms and the growing disparity in that which was actually measured and the complex

constructs said to have been represented became the grist for much writing in the field, but little alteration in research methodologies or definitions.

Many writers have identified the need for greater clarity in definitions and comprehensiveness of assessment techniques. McGrath (1962) was one of the first to identify these problems; however, the response has largely been continued appeals for better specification of terms and methodologies (Braxton, 1980; Braxton and Bayer, 1986; Braxton and Toombs, 1982; Creswell, 1985; Finkelstein, 1984; Kirschling, 1979; Pellino, Blackburn, and Boberg, 1984; Reagan, 1985; Webster and Conrad; 1986). Even within the specialized domain of assessment of research productivity, writers have been calling for more comprehensive assessment methods (Creswell, 1985). Reagan (1985) called for refined conceptual clarity on the nature of academic productivity, particularly for the use of faculty evaluation. Webster and Conrad (1986) indicated that the assessment of academic departments was hampered by measures that fail to capture the many forms of research in which faculty engage, and Braxton and Bayer (1986) recommended that a taxonomy be formed that could adequately differentiate between concepts of "scholarly activities," "research," and "publication."

The primary roles of a faculty member have been described as that of teacher and researcher (Parsons and Platt, 1973); however, the assessment of scholarship has been severly constrained in the literature to incorporate only one of these roles. Teaching is no longer mentioned as a component of scholarship; scholarship has become research (Rice, 1986). The service component has become practically nonexistent in the assessment of scholarship. Thus, a fundamental definition of and appropriate criteria for

assessing faculty scholarship has yet to be determined. As withmost important constructs, faculty scholarship may be sufficiently complex as to defy a single definition; the challenge may be to provide variations on the definition for faculty members within different disciplines and fields.

The faculty members and norms of the disciplines and fields that coexist on college campuses have been shown to vary systematically in many ways. Biglan (1973a, 1973b) empirically demonstrated systematic and significant differences in faculty members' social connectedness, time devoted to various activities, commitment to research, teaching, and service, and scholarly output. Biglan identified three dimensions with which the academic subject matter areas were categorized: (1) the existence of paradigm, which he termed the Hard-Soft discipline continuum, (2) the concern for application of knowledgem which he termed the Applied-Pure continuum, and (3) concern for life systems, the Life-Nonlife continuum. The first dimension provided empirical support for Kuhn's (1970) concept of paradigm.

Biglan found that systematic differences in commitment to what have been described as the two major faculty roles: teaching and research (Parsons and Platt, 1973). Faculty in academic areas with low paradigm development (Soft fields) displayed greater commitment to teaching and devoted more time to it; faculty in Hard academic areas exhibited greater commitment to research and devoted more time to research. In addition, publication rates were found to vary systematically. Faculty in academic areas with high paradigm development published more journal articles, coauthor more, and produce fewer monographs. Biglan also found that faculty working in

Applied fields like to work with more people on teaching and research than faculty in Pure academic fields. Applied faculty also reported that more individuals influence their work. Faculty in Pure academic areas preferred research, while Applied faculty preferred service activities and reported that they spend much more time engaged in these activities. Academics in Applied areas publish more technical manuals than do academics in Pure areas. Academics in Life systems subject matter areas reported liking to work with more people on teaching and a larger number of people influencing their work than did Nonlife academics. Biglan concluded that the study results had significant import for the scientific study of scholarly endeavors. The subject matter differences that were empirically illustrated in the study suggested that: (1) generalizing results from a single or a few academic areas to others was not appropriate, and (2) university wide standards for the evaluation of faculty was not possible. Biglan further proposed that the study might provide a systematic framework for the exploration of what might be "cognitive styles" of academic areas.

Biglan's work was validated and extended by many other researchers from a variety of institutions (Smart and Elton, 1975, 1976; Hesseldenz and Smith, 1977; Smart and McLaughlin, 1978; Creswell and Bean, 1981; Muffo and Langston, 1981; Smart and Elton, 1982). The research contributing to what is now termed the "Biglan Model" has established that systematic disciplinary differences exist in academic subject areas that can assist in the understanding of internal diversity of higher education institutions. Smart and Elton (1982) concluded that Biglan's classification areas represent

disctintive academic environments with unique performance norms and expectations.

Additional disciplinary differences have been reported in relation to many other professional communication practices. For example, Creager (1966) reported that within the fields of engineering, mathematics, and geology the tendency to cite the work of other researchers is low; whereas in the fields of biology, chemistry, and physics, citation of the work of others is very high. Smith and Fiedler (1971) found systematic differences in the number of publication outlets available. Zuckerman and Merton (1973) examined rejection rates of 83 journals; the results indicated tremendous variation in the observed rejection rates. In general, the higher the paradigm development of a field, the lower the journal article rejection rate. Other areas in which disciplines vary in their research and communication practices include: the average number of papers produced; the age of literature referred to in publications; the extent to which mathematics are used in research; coauthorship patterns; reliance on research assistants in data collection; and division of labor among collaborators.

Despite knowledge of systematic differences in professional communication modes and opportunities, the dominant reward system in higher education favors the publication of articles in refereed journals. Tuckman's work (1979) has established that faculty salary levels can be predicted best with knowledge of the number of journal articles a faculty member has published. The increased use of publication indices in the evaluation of faculty performance has been documented in research institutions, doctoral granting institutions, and liberal arts institutions.

Further, the practice of using frequency of published communication as a criterion has been extended beyond the assessment of research productivity. Publication counts have been increasingly used as an additional indicator of teaching effectiveness (Seldin, 1980, 1984).

The Relationship between Teaching Effectiveness and Publication Productivity.

There is quite a body of literature on the academic profession that has suggested that the faculty scholarly role is a function performed outside of, or in addition to, the teaching role. For example, Babchuk and Bates (1962), building on the work of Gouldner (1957), differentiated two distinct professional communities: the community of college teaching and the community of disciplinary specialists. Within this framework teaching is a local community activity and the publication of journal or other disciplinary writings as connoting membership in the community of disciplinary specialists. Gouldner (1957) referred to the two academic types as locals and cosmopolitans. McGee (1971) used the metaphor of Academic Janus to depict the two faces of the academic professional Much of this literature has suggested that this differentiation of roles represents conflict for faculty as they strive to perform their duties (Babchuk and Bates, 1962; Caplow and McGee, 1958; Crimmel, 1984; Gouldner, 1957; Ladd, 1979; Light, 1974; Sample, 1972; Voertman, 1970).

The suggested conflict has been exacerbated by a documented increase in the emphasis given to research, publication, and professional society activity in the faculty reward structure (Seldin, 1984a, 1984b). Ladd (1979) observed and decried the ascendency of research over teaching in faculty

evaluation processes and termed this mismatch in evaluation the "tyranny of the research model."

Other writers have observed that the conflict is apparently nonexistent in some institutions; McAllister (1976) and Centra (1983) both found that faculty at research universities believe that research increases teaching effectiveness. Braxton (1983b) found that researchers performed more scholarly based course activities. Stark (1986) has indicated that within the research university, and to a lesser extent at other types of institutions, the teaching and research roles is viewed as one.

The role conflict between teaching and research functions has yet to be empirically demonstrated, though many researchers have attempted to detect its presence. Moreover, no inverse relationships have been reported in any of the studies assessing the relationship between teaching effectiveness and research productivity. However, many authors and faculty still maintain that such a role conflict exists. In light of the research findings, a few authors have cautioned against premature acceptance of the presence of a role conflict (Faia, 1980; Stark, 1986). Faia (1980) has suggested that the misperception of role conflict may act as a self-fulfilling prophecy.

The vast majority of studies assessing the relationship between teaching effectiveness and research productivity have resulted in correlations that were either close to zero or mildly positive. Feldman (1987) in an extensive review and meta-analysis of the literature reported that research productivity has exhibited a positive but very weak correlation with teaching effectiveness. A weak positive correlation was found whether the measure of research productivity used was scholarly publication over a few years or a

career, number of grants received, ratings of recearch productivity by a faculty member's department head. Feldman found that studies using citation counts resulted in correlations of zero.

Frey (1978) and Finkelstein (1984) have both observed that a potential reason for the weak relationships reported in research studies assessing the relationship between research productivity and teaching effectiveness may be that the evaluation of teaching effectiveness is often global. Frey reported a positive correlation (r = +.37) between number of citations and a multi-item scale assessing "pedagogical skill," and a negative correlation (r = -.23) with a multi-item factor scale measuring the instructor's "rapport" with students. Frey suggested that the use of global assessments "masks the true relationships" (p.83). Finklestein made the same observation while reviewing a small subset of studies assessing the relationship. Feldman's meta-analysis found that these observations were maintained by the data. The four dimensions having the largest correlations with research productivity were related to teacher's subject matter knowledge (r = +.21), intellectual expansiveness (r = +.15), preparation and organization of the course (r = +.19), and clarity of course objectives and requirements (r = +.18). Six other dimensions were reported with positive and significant average correlations, but none exceeded +.11. None of the remaining specific dimensions of teaching effectiveness were significantly related to research productivity; further, none resulted in inverse relationships.

Research on faculty allocation of time has shown that activity in research does not take away from time that would be devoted to course preparation. The extra time and energy required for productive research

appears to be stolen from weekends and family. This finding is congruent with Jencks and Riesman's (1968) observation regarding the most productive faculty, "The more the more." Feldman's (1987) meta-analysis also found that the time spent in research was not negatively related to teaching evaluation; however, Feldman did find that the more time spent in research the greater the likelihood of high research productivity. Interestingly, Feldman also found that the time and effort devoted to teaching and teaching related activities was not related to students' evaluations of teaching effectiveness.

In summary, there does not appear to be a strong relationship between teaching effectiveness and research productivity. Feldman's work uncovered some consistent patterns of small positive relationships between specific dimensions of teaching effectiveness and research productivity, but they are certainly not of the degree that the prevalent value and reward system in higher education embraces. Nonetheless, an inverse relationship has not been shown to exist either. Feldman's careful analysis was helpful in supporting the contention that research productivity and teaching effectiveness were not related. Feldman's analyses suggested that the two dimensions, research productivity and teaching effectiveness, were not only unrelated; "they are essentially independent of each other" (p. 279), even after controlling for the effects of mediating variables. Thus a myth, tenaciously held in many quarters of higher education, must be reexamined. If teaching and research productivity are independent dimensions of faculty scholarship, then indices of research productivity cannot reasonably be used as indicators of the teaching dimension of faculty scholarship, as Seldin's survey of academic deans indicates is a growing trend (1984a, 1984b).

Emerging Trends in the Reconceptualization of Faculty Scholarship

Wilson (1942) was one of the first to study faculty in higher education. His work was conducted and published prior to the scientific and technological advances that brought about the intense interest in investigations of scientific productivity. Wilson's work is of special interest here since since he described the perception of role and behavior of faculty, (without specializing his study to scientists) before the ascendancy of the major research university, the dramatic advances in technology, and the specialization and professionalization of university faculty. Thus, his work has provided a baseline for comparison of relative values.

Wilson's sociological study, The Academic Man, indicated that teaching was the primary activity of faculty. Research was not considered of much importance. Wilson's observations supported the contention that faculty publishing research, or creative or interpretive writing, were not promoted as rapidly as faculty limiting their activities to the classroom. In the late 1950s, as described earlier, this situation was altered dramatically.

The study of Lazarsfeld and Thielens (1958) took place just before the dramatic upheaval that resulted from the post-sputnik era. Their study, which might be considered transitional, examined highly productive social scientists just prior to the expansion of technology, science and the press for publication. They reported that highly productive researchers were frequently officers in professional organizations, tended to come from high socioeconomic families, and were more likely to move from institution to institution. This study was published just about the time that Gouldner's

description of the local and cosmopolitan latent roles emerged, and is congruent with the cosmopolitan typology. Immediately following the launch of the Russian sputnik, the cosmopolitan faculty member became the ideal. "Scholarship became research, and teaching and research became activities that competed for the faculty member's time" (Rice, 1986, p. 13).

Dramatic changes took place in higher education, and in response to the unrelenting pressures for publication and productivity, an increasing concern for a broader and more refined assessment of faculty performance surfaced in the literature. Dissatisfaction with assessment of faculty performance that relied on narrow measures of research productivity (i.e.; publications) led to many studies that demonstrated the inappropriateness of such indicators to the general faculty. Wilson (1967) observed that even in the sciences, 90 percent of all published works are written by about 10% of the college and university faculty. Ladd (1979) indicated that nearly 60 percent of all full-time faculty have never authored or co-authored, edited or co-edited any book or monograph. In research universities, one fourth of the faculty have never published a single journal article, and one half have not published a book or monograph (Bayer, 1973; Bayer and Dutton, 1977). Yet, the dominant view and assessment of faculty scholarship has incorporated enumeration of publications as a most important factor in evaluation.

A recent and still developing trend in research pertaining to the faculty scholarly role has focused on the reevaluation of the concept of faculty scholarship. These newer efforts have attempted to expand the definition and assessment strategies employed to assess scholarship. Recent conceptualizations of faculty scholarship have included a great deal more of

the spectrum of faculty activities than the publication of disciplinary articles (Braxton, 1980; Braxton and Bayer,1986; Braxton and Toombs, 1982; Pellino, Blackburn, and Boberg, 1984). Astin (1985) has recommended, along with the Study Group on the Conditions of Excellence in American Higher Education (1984), that the definition of scholarship be significantly broadened to include many other indicators of scholarly activities than the publication of articles. Specifically, the Study Group recommended that retention, promotion, tenure, and compensation decisions be based upon a broad definition of scholarship that demands demonstration of that scholarship. The Study Group recognized that much of the "research" activity engaged in by faculty could be termed "scholarship," though much of it would never be published. While recognizing the importance of publication as "a critical act of professional communication" (p. 50); the Study Group cautioned that prevailing reward systems define "acceptable scholarship and publication in ways that preclude some forms of productive academic inquiry, and actually discourage faculty from exploring the unknown." (p. 50). In summary, the panel concluded, "A broader definition of scholarship, we believe, will encourage faculty members and institutions to be more realistic in their expectations." (p. 50).

Many articles have been written in the higher education literature disputing the dominant role definitions and expectations imposed upon faculty. Ladd (1979) has published the most vehement attack on the prominence of the current value system and emphasis on publication in the assessment of faculty. His description of the "tyranny of the research model" has inspired many other writers to declare and describe various models of

scholarship for specific types of faculty and institutions. Reagan's (1985) dismissal of current conceptions of academic productivity, Soderberg's (1985) plea for credible models of faculty evaluation, Elman and Smock's (1985) presentation of a structure for the reward of faculty professional services emanating from their academic discipline, Ruscio's (1987) description of the distinctive scholarship of the selective liberal arts college, Rice's (1986) call for a new broadened conception of the academic professional, are a few of many possible examples of resistance to the imposition of the research model upon the general faculty.

In response to this general dissatisfaction, a few researchers have attempted to empircally demonstrate that faculty scholarship may incorporate more than publication of knowledge, citation counts, and grant dollar acquisition. Braxton (1980), though not attempting to define scholarly activity, wanted to discern whether activities other than publication that also make use of a faculty member's doctoral research training exist empirically. This work led to Braxton and Toomb's (1982) differentiation of scholarly effort from research activity.

Pellino, Blackburn, and Boberg (1984) observed that the percentage of faculty indicating they were currently engaged in research that they expected to lead to publication varied dramatically across institutional types. For community colleges the percent indicating engagement in such research was: about 25%; the regional university faculty percentage was about 60%, and 89% of research university faculty indicated they were involved in research leading to publication. However, the same authors reported very little variation in the percentage of faculty across institutional types indicating they

were currently engaged in scholarly activity of some type (excluding teaching and classroom preparation). The corresponding percentages ranged from 94% to 98%. Pellino, et. al, observed that faculty who are not productive in publication perceive their work as scholarly, and that the contribution of this scholarship to their work needs to be clarified.

Pellino, Blackburn, and Boberg (1984) provided some clarity to the issue of faculty scholarship by factor analyzing weights faculty had assigned to 32 activity statements. Over 1,000 faculty respondents, from a variety of institutional types, assigned weights to the activities on the basis of the centrality of the activities to the faculty member's conception of scholarship. Six correlated factors were reported: (1) Scholarship as a Professional Activity, (2) Research and Publication, (3) Artistic Endeavor, (4) Engagement with the Novel, (5) Community Service, and (6) Pedagogy. The resulting factor structure suggested a variety of dimensions of faculty scholarship, and Pellino, et. al. suggested that these dimensions of scholarship and the manner in which faculty give meaning to them might open a new field of investigation.

This pioneering work has demonstrated prevalent confusion and discord regarding the dominant modes of assessment of faculty scholarship and the perception of the construct. The Pellino, Blackburn, and Boberg (1984) study has indicated that faculty scholarship may be multidimensional. These findings coupled with the surge of writings expressing dissatisfaction with the dominant model of faculty scholarship suggest that this is a rich and fertile area for study. The contributions of the earlier researchers provided the framework upon which the current study was designed to build. The

specification of a comprehensive content domain of faculty scholarship and the exploration of the dimensions of the construct would surely provide greater clarity and perhaps assistance in the development of more appropriate and valid assessment methodologies.

Role Theory

This section of the chapter will describe role theory in general and the specific components of role theory applied in the study. The section is divided into the following five subsections: Antecedents of Role Theory, The Role Concept, Socialization, Occupational and Professional Socialization, and Faculty Socialization.

It has been observed that role theory probably does not constitute a monolithic theory distinguishable from theoretical frameworks advanced by other disciplines (Joas, 1985; Thomas and Biddle, 1966b). The development of what has come to be called role theory represents many of the trends that have taken place in the behavioral and social sciences (Thomas and Biddle, 1966b). The development of what is today termed modern role theory will be described in the subsection, Antecedents of Role Theory. Thomas and Biddle (1966a) have suggested that only the language that has developed to describe role theory and its processes and components qualifies as being distinct from other fields of inquiry. The concept of role and the specific terms used to describe it will be developed in the subsection, The Role Concept. The study of roles has included investigations of many processes such as communication, learning and socialization, sanctioning, and conformity (Thomas and Biddle, 1966b) through which roles are defined, learned, manipulated, and controlled. Socialization has been recognized as a process

that continues throughout the life cycle and through which individuals learn and are prepared for the many roles they will assume. This topic will be discussed in the subsection entitled Socialization. Research attention has recently been focused on a more specialized segment of socialization, adult socialization. Family and work have been found to comprise large sectors of adult role constellations. The general area of the adult socialization process related to occupation and the elaborate socialization process associated with entry into the professions will be described in the subsection, Occupational and Professional Socialization. A more specialized subsection, Faculty Socialization, will follow, in which the socialization process of a special category of professionals, college faculty, is described.

Antecedents of Role Theory

The contemporary study of social roles, which began in the 1930's, has according to Turner (1985), been shaped extensively from the thought and theory of at least the following four sources: (1) Park (1926, 1927) and Mead (1934); (2) Lewin (1948, 1951); (3) Moreno (1934); and (4) Linton (1936). All four of these sources contributed significant and differing components and perspectives to the role concept, yet they supported a common objective regarding the desire to understand the relationship of individuals within a social framework.

Park (1926, 1927) and Mead (1934) provided the origin of what is today termed the symbolic interactionist conception of man and society. This schema stressed social interaction as an explanatory factor in the understanding of individual and group behavior. Individual behavior is conceived to be highly creative and a product of human intelligence. Mead's

theory of communication reflects what Joas (1985) referred to as the "fundamental feature of human sociality" (p.38). Mead contended that human communication was unique and superior to that of other animals in its use of complex symbols and that each participant in every interactional system influences the behavior of every other participant in significant ways. This approach stressed an interactive process of negotiation whereby modifications in behavior are explained through alterations in behavior by all participants. Park (1926, 1927) also recognized the complexity and importance of human interaction to human behavior and reacted negatively to the new behavioristic emphasis of psychology during the 1920's. Park contended that the over-emphasis on behaviorism across the discipline of psychology had detrimentally influenced both social psychology and sociology by dismissing consciousness as a powerful determinant of human action. Park, like Mead, considered the complex interactive processes influencing human behavior, both individually and socially, to be unique to the human condition and suggested that the important characteristic of society is not its structure, but its capacity, through consciousness and interaction, to engage in corporate action. Through the operation of complex human communication, Mead and Park were able to describe and explain the development and maintenance of traditions, collective self-determination, and expectations of self and others in an interactive context.

Lewin (1948, 1951) introduced the concept of 'gestalt' theory to American social psychology with the intent of extending the application of the theory from individuals to the social structure and the interrelationships that affect human behavior. Turner (1985) observed that the assumption

underlying the extension of the theory to social settings was that all "human psychological processes take shape through the discovery and creation of integrating patterns, and that the creation of meanings in terms of gestalts is essential for human social behaviour" (p. 22).

Moreno (1934), the third source, presented the concepts of role and role playing as creations of individuals, or players, as they uniquely adapt to organizational and social constraints, or scripts. Through the sociodrama, the individual network of social interrelationships are brought to consciousness where effective therapy is more likely to take place. Moreno's conception of role remained somewhat separate from those of the other theorists primarily due to its extensive therapeutic applications of sociodrama and role-playing (Turner, 1985).

The fourth and most widely used conception of role was originally a product of the field of anthropology. Linton (1936) formulated and presented a theory of culture in which individual responses to common cultural demands could be accounted for. Linton asserted that roles were defined through social norms, and that these sets of norms are culturally transmitted. Linton, in contrast to the prominent behavioristic and consensual perspective of culture at the time, wanted to account for the fact that individuals subjected to a common culture do not respond in the same way.

These four rich, and interdisciplinary formulations of role focus on the behavior of individuals within a social framework. The four formulations have gradually evolved into two streams of thought for organizing the study of role: (1) the structural approach, and (2) the symbolic interactionist conception. The Lintonian system provided the framework for what is now

termed the structural approach to role theory. The structural pattern has been most common in published sociological research on role theory, and enjoyed wide endorsement among sociologists largely because: (1) it complied with the behavioristic bias prominent throughout several decades that both psychology and sociology endorsed, (2) it assigned precedence to social structure over individual behavior, which justified the existence of sociology as a social science distinct from psychology, and (3) it corresponded nicely to the conception of social structure as a system of social norms (Turner, 1985). The interactionist view evolved from the compatibility of the most fundamental principles of gestalt theory with that of role playing. The merging of these concepts fit nicely with the premise that behavior is not explained primarily by conformity to social norms but involves the exercise of creative intelligence to overcome or cope with expectations. The process of interactive negotiation and the ability of individuals to respond to flexibility within organizations through the formation of creative gestalts is highly compatible with the interactionist view (Turner, 1985).

Both approaches support a common theme that integrates the quest for understanding observed variability in the behavior of individuals within the social and organizational structure, or what has been termed "the collective matrix" (Levinson, 1959). While the two approaches seek to explain human behavior within the context of the "collective matrix," the precedence assigned to social and organizational structures and individual freedom of action factors is quite different. Due to its interdisciplinary origins and integration of thought, role theory has provided a crucial linkage between

psychology, sociology, and anthropology through which many facets of the behavior of groups or individuals may be studied.

The Role Concept

A particular perspective for the understanding of human behavior and factors regarded as influening behavior has been provided by the role concept. Some of the factors said to influence individual behavior include the individual's personality, capabilities, and understanding of expectations for behavior; the behavior of others; and socially and organizationally structured norms, rules, prescriptions, and expectations . The role perspective has ascribed much of the variance of actual life behavior to the influence of past and immediate external influences that operate interpersonally and intrapersonally (Thomas and Biddle, 1966a). Individual behavior is recognized as a variant within and across social structures. Through the role perspective, individual behavior is viewed within a framework that highlights the social determinants felt to contribute to the creation of individual behavioral differences (Thomas and Biddle, 1966a). Given the multiplicity of factors recognized within the "collective matrix" as influencing human behavior, and the many contexts, such as family, work, school, community, and society, within which human individual and group behavior takes place, it should not be surprising that several meanings for the term "role" have evolved.

Levinson (1959) recognized that the role concept was not a unitary construct and advocated the establishment of additional conceptual labels to clarify the multiple meanings that had developed. Levinson identified and differentiated three aspects of social role that had been used explicitly or

implicitly in the literature: (1) role demands, (2) role conception, and (3) role performance. His approach encouraged greater incorporation of personality into the study of social structure and change within organizations.

Levinson (1959) described role demands, or role definitions, as structurally-provided situational pressures that are external to the individual. Role demands were characterized as being explicit as well as implicit, often lacking a high degree of explicitness or consensus, though both explicitness and consensus are commonly assumed. A common result of the empirical research on role definition has been lack of consensus regarding proper role. Levinson contended that structural norms may be contradictory as defined by organizational charter and "informal" norms. Status groups within organizations may embrace several conflicting viewpoints in regard to specific role-requirements; Levinson has concluded and cautioned that structural demands "are often multiple and disunified" (p. 174). Role demands and their definitions have ranges of specificity that cover a spectrum of expectations from "strongly required," to various degrees of "acceptable," to recognition of that which is clearly taboo. Organizations and the status of roles are factors influencing variability in the range of this spectrum. The greater the range of the spectrum, the greater the latitude for personal freedom of choice within the organization. The coherence among organizationally defined role requirements, the degree of consensus with which they are held, and the degree of individual choice allowed determine opportunity for individual selection among existing norms and opportunity for creation of new norms.

Role conception and role performance, as Levinson (1959) described them, are both components of role adaptation that take place within the individual. Role conception was defined as an individual's ideational orientation to a given role, while role performance was depicted as an individual's behavioral pattern toward the role. Role conception "delineates the specific functions, values, and manner of functioning appropriate to one position" (p. 176) within the organization. Levinson suggested that given the multiplicity of powerful factors influencing the selection, creation, and synthesis of potential choices of accomodation to role demands, that role conception is essentially an ego achievement. Role conception represents an individual's best solution to conflicting demands, changing environments, and personal choices in a complex environment. Role conceptions vary across as well as within institutions, although moderate consensus and congruence with role definitions is thought to maintain structural stability.

Of particular interest to the current study is the observation made by Levinson (1959) that when one or more commonly held role conceptions can be identified, modal types may be spoken of. Members in particular organizational positions often have discrepant conceptions of roles. As noted earlier, the range of specificity in role demands and the status and autonomy associated with a particular role influence the degree of latitude individuals enjoy in selecting among existing norms and creating new norms. The greater the opportunity for individual freedom of choice in role conception, the less likely that consensus will be found in role conceptions, and consequently, the greater the liklihood will be for the development of multiple modal role conceptions. These variations in role conception may

also be explained by the many sources contributing to the development of role conception other than the immediate organization: childhood experiences, values and personality, formal education, apprenticeships, reference groups, and varying interpretations of responses to the role. Levinson has faulted both traditonal sociological theory and dynamic personality theory with overemphasis of the social structure in the previous case and personality in the latter as determiners of role conception. Levinson (1959) has contended that individual role conception cannot be the sole product of either personality or social structure.

Levinson (1959) has submitted that the perspective of both the *psyche* and the *socius* influence role conception. Levinson stated,

> "The use of these two reference points is, like the use of our two eyes in seeing, necessary for the achievement of depth in our social vision." (p.178)

Through this approach, Levinson advanced a closer linkage between sociology and psychology in the formulation and understanding of the role concept.

Role performance has been described (Levinson, 1959) as the overt behavioral aspect of role-definition. As the occupant of a social position, each individual is empowered to choose among various alternatives regarding modes and levels of performance. Role performance has been considered the result of many contributing factors, personal as well as organizational. In the studies that have empirically assessed role performance, several modal types of role performance have been found, rather than a single dominant type.

The assessment of role performance would appear to be a fairly straightforward process since it, by definition, involves explicitly overt behavior. In actual practice, that which appears straightforward has been highly elusive. One of the major obstacles in empirical research on role performance has been the formulation of variables adequate for its assessment. Consensus regarding the behaviors considered important or relevant and the behaviors considered tangential or idiosyncratic has not been achieved. This difficulty is considered a major theoretical problem for the application of role theory (Levinson, 1959). This theoretical obstacle obviously has major implications for the evaluation of individual role performance in all but the most simple roles. As described earlier, the inadequacy of variables used in the assessment of faculty scholarship has also been identified within the literature of the field of higher education as an important challenge for the evaluation of faculty. The specific case of the evaluation of faculty illustrates the elusive character of the assessment of role performance. The difficulty in arriving at consensus with regard to the behaviors that are considered important and integral to role performance is heightened when the role being evaluated is that of a professional. The professions are characterized by great latitude and autonomy in role conception. Without understanding and carefully defining the role conceptions that faculty subscribe to, the crafting of evaluation strategies to accurately assess role performance seems likely to miss the mark.

In summary, the role concept is not unitary but involves at least three primary distinctions. Differentiation of the various aspects of role clarifies the complex inter-personal and intra-personal factors that operate at all levels

of the "collective matrix." Understanding of the various components of the role concept illuminates and enhances the study of the processes through which individuals learn, accomodate, and respond to a complex and changing environment.

Socialization

Socialization is one of the processes through which the understanding of roles has been advanced. Through socialization, individuals learn the norms, values, orientations, behaviors, and expectations associated with various roles. Brim (1966) has defined socialization as "the process by which persons acquire the knowledge, skills, and dispositions that make them more or less able members of their society" (p. 3). Anderson (1974) has noted that socialization refers to "the ends and the processes by which an individual becomes an accepted member and one who displays normative behavior within a community of persons" (p. 15). Anderson also stated that the socialization process "insures an end that is one of identity" (p. 15). Thus, individuals are socialized for identification with and acceptance in many coexisting communities, such as gender, families, professions, ethnic groups, or nationalities. The studies conducted within the specializations of socialization research and organizational sociology have produced the primary findings regarding applications of role theory (Joas, 1985). Through socialization, all individuals receive some training or preparation for the many roles they will assume throughout their lives; much of this learning and orientation takes place in the home and through what sociologists refer to as socializing agents and agencies (Anderson, 1974; Biddle, 1979). Sociologists have until quite recently limited consideration and

investigations of socialization to the childhood and adolescent stages of human development. Only recently has research pertaining to socialization extended beyond adolescence.

Numerous developments in the social sciences have fostered a reconsideration of the duration of the socialization process. These developments include: (1) a reconceptualization of human personality, (2) the emergence of developmental and life-span psychology, (3) the appearance of resocialization agencies, and (4) the recognition of continuing demands placed on individuals as a result of rapid technological and social change. Each of these modifications has resulted in an increased interest in and felt need for the study of socialization as a lifelong process.

Joas (1985) observed that the reconsideration of personality, as other than an inherited, fixed and complete structure, has permitted the study of socialization to continue throughout the life cycle. Through acceptance of the notion that personality is not fixed at birth or any specified early stage of life, the continued study of adult socialization became possible and necessary to explain the ongoing interaction of individuals with their environment.

Eriksons's (1963) psychosocial stages, which describe the primary psychosocial crises associated with eight sequential developmental stages throughout the life span, altered perceptions regarding the socialization process. The acceptance of human development as a continuous lifelong process, in which individuals encounter additional adjustment problems, encouraged the application of role theory and extended the study of socialization processes beyond adolescence. Dion (1985) has credited the study of role-related functioning, a major feature of adult socialization research in

sociology and life-span developmental psychology, with major contributions to the understanding of socialization as a lifelong process.

Traditionally, socializing agencies were primarily related to educational functions; however, many new forms of socializing agencies have appeared that are not primarily associated with education. Biddle (1979) has suggested that many of these newer socializing agencies might best be described as resocializing agencies. Examples of resocializing agencies would include social work agencies, Alcoholics Anonymous chapters, vocational rehabilitation centers, halfway houses, and counseling centers. Through the services of such resocializing agencies, it has become much more apparent that socialization continues throughout one's lifetime.

Many adult roles require preparation beyond that acquired during the childhood years (Brim, 1966). Modern society changes so rapidly that preparation taking place during the early years of life cannot possibly retain its comprehensiveness or currency. The modes and methods of the workplace have altered dramatically the total work environment of many occupations. The knowledge base of many occupations, particularly the professions, has seen tremendous expansion and modification. The last few decades have been marked by dramatic changes in social attitudes and norms. The swift changes in technology and many facets of society compel individuals to continue to make accomodations throughout the life span (Dion, 1985).

Socialization has now been recognized as an ongoing and lifelong process. In recognition of the fact that adult roles require additional preparation (Brim, 1966), adult socialization has become a specialized area of study within the social sciences and within the area of role theory in

particular, although it has not received the attention some authors have contended it is due (Dion, 1985). Brim (1966) has differentiated between adult socialization, which he suggests centers around role-related behaviors, and childhood socialization in which the acquisition of fundamental values is emphasized. Although adult socialization includes preparation for a great many roles such as marriage, parenthood, advanced age, and other changing familial and societal roles, a large part of adult socialization involves preparation for occupational roles. Occupation and family have been demonstrated to be the primary focus of most adult role constellations (Levinson, 1978; Moore, 1969). Occupational socialization will be considered here.

Occupational and Professional Socialization

Moore (1969) defined socialization as, "both cognitive learning and at least minimal internalization of appropriate norms." (p. 868). Occupational socialization is often a form of training, or perhaps behavior modification. On other occasions the process involves the development of commitment to a calling. Moore termed these sometimes overlapping processes as conditioning and commitment. The internalization of norms is considered a vital element of occupational socialization, because attainment of internalized norms of behavior alleviates the necessity for costly supervision and disciplining of employees. Moore has submitted that "normative internalization takes place only in situations marked by strong affectivity in relationships, and some part of the affect must be positive" (p. 869). The acquisition of both cognitive knowledge and internalized norms is important

for virtually all occupations; however, the presence of both is considered crucial for socialization to all professional roles.

Preparation for and entry into a profession have been described as parts of an elaborate socialization process that incorporates much more than cognitive learning and internalization of norms. Goode (1957) has suggested that the professional life involves entry into a separate community that exists within a larger society. Induction into the professional community has been characterized as involving the adoption of much more than role-related behaviors. Bragg (1976) indicated that the socialization process includes all forms of learning--cognitive, as well as affective. Bragg's review of socialization processes in higher education led her to state that the influence of education on the affective domain is as great as on the cognitive and may be longer lasting. Powell's (1985) recent work on the effects of higher education, studied through the analysis of educational autobiographies, demonstrated enduring effects on the affective domain. His study indicated that the most important formative outcomes of education reported were related to the learning of high-level intellectual skills and attitudes and values of personal and professional significance. Goode (1957) has suggested that professional socialization includes the internalization of: a sense of identity, shared values, congruent role definitions, common language, power over members, production of the next generation of members through control of their selection, and training through an adult socialization process. Barber (1963) included the following components: generalized knowledge, primary orientation to the community of interest, internalized code of ethics, and rewards which primarily symbolize work achievement.

Among the traits considered most central to the professions is the level of knowledge and technical competence demanded of members (Bragg, 1976; Harries-Jenkins, 1970; Mix, 1971; Parsons, 1939). Initiates cannot become members of the professional community without the acquisition and demonstration of the knowledge and skills that define the profession; Bragg (1976) considered this characteristic paramount. This knowledge base and expertise constitutes the element that insures professional autonomy. Given the specialized knowledge base acquired by members of a profession, professionals are not subject to the review of nonprofessionals. Nonprofessionals do not have the expertise to evaluate the work of professionals. Professionals are responsible only to themselves and their professional colleagues for appropriate execution of the specialized knowledge and skills that define the profession (Bragg, 1976; Mix, 1971). Professional training generally has a lengthy and formal educational component that takes place, preferably, on a university campus. The association of a university with the formal educational element of the professional socialization process tends to be recognized as an objective indicator of the extensive knowledge base and systematic theory that underlies the skills of the profession (Anderson, 1974; Harries-Jenkins, 1970).

The formal educational component of the socialization process has as its primary objective the provision of the cognitive learning required to meet the rigorous standards of the profession. The training period also provides opportunity for inculcation of the traditions, values, norms, and orientations of the occupational group. Anderson (1974) delineated five stages in the socialization process: (1) observation, or the identification of a role model, (2)

imitation of the role model, (3) feedback, or evaluation of the imitation, (4) modification, or alteration of behavior subsequent to feedback, and (5) internalization, or incorporation of the role model's values, behavior, and norms to personal identity. An extensive educational component provides opportunities for all five stages. A few professions, such as the clergy, medicine, and the military, establish extended periods of isolation for their recruits to provide new ego ideals, reference groups, values, and attitudes. Goode (1957) has observed that the socialization process cultivates social dependence of initiates upon the professional community for their continued development and advancement. A system of continuing prescriptions and sanctions on the behavior of practicing professionals is established, and inappropriate attitudes or behaviors are censured. Merton, Reader, and Kendall (1957) stated in their studies of medical students, that socialization

> "refers to the process through which (the student) develops his professional self, with its characteristic values, attitudes and knowledge and skills, fusing these into a more or less consistent set of dispositions which govern his behavior in a wide variety of professional (and extra-professional) situations. (p. 287)"

Such a description illustrates the comprehensive, powerful, and pervasive nature of the professional socialization process.

The treatment by various authors of the nature of the socialization process and the attendant provision and maintenance of group values and norms has varied dramatically. For example, Olesen and Whittaker (1970) have observed that a subtle image of "student as child" (p. 190) has been captured in a number of professional socialization studies that is suggestive of the influence of what has been referred to as "coercive themes in studies of

childhood socialization" (p.190). Olesen and Whittaker stated that this "conceptual contamination" (p. 190) was quite pervasive, and that many studies conducted "in a variety of settings and countries carry the coercive theme to the point of conceptualizing 'student' as 'a product'." (p.190). Harries-Jenkins (1970) has described the professional socialization process as indoctrination to idealogical values of a group culture at an "assimilating institution" (p. 79). Greenwood (1957) has described the idealogical values of a profession as the "unquestioned premises upon which its very existence rests" (p. 50). Harries-Jenkins has suggested that the presence of a compulsory and extensive socialization process can serve as an indicator of the scale of professionalization of an occupation. Other writers have indicated that the process is more akin to acculturation, a process of change that is more interactive in character. An acculturation view of professional socialization would suggest that the continuous contact and interaction of culturally distinct groups results in one of the groups adopting significant elements of the culture of the other. The acculturation view recognizes greater structural and personal choice in the selection of cultural elements internalized and the extent of internalization. Olesen and Whittaker (1970) have described and critiqued this approach in a number of studies; they have noted that many studies often refer to the socialization process as a form of personal and cultural reformulation, with students described as being assimilated in a fashion similar to immigrants or primitives to a new world. Olesen and Whittaker have cautioned against acceptance of the simplistic characterization of the professional socialization process as a "moulding" stage in which students blindly accept professional values. Bragg (1976) was

decided in her statement that the socialization process in the professions is a social process, which specifies two-way interaction. Bragg has described socialization in higher education as,

> "a reciprocal process in that changes occur in both the person being socialized and in the person or group doing the socializing (the socializing agent)." (p. 7)

It is clear that attitudes and characterizations regarding the nature of the socialization process are quite varied throughout the literature.

Philosophy regarding the process of professional socialization and the transmission of norms, attitudes, and behaviors, seems to vary in a manner similar to attitudes regarding the two major frameworks of role theory, the structuralist and symbolic interactionist approaches. As noted earlier, these viewpoints both frame the understanding of behavior of individuals within the collective matrix while differing in the prominence assigned to the social structure and the individual in explaining behavior. The description of the process as one involving indoctrination and acceptance of new values and orientations as a whole, on the one hand, and the depiction of the process as one in which individuals creatively negotiate and interact in a reciprocal fashion with the environment, on the other, perhaps represent two poles of a spectrum. In any event, a major obstacle in accounting for individual change that takes place during the professional socialization phase is the difficulty of separating prior selectivity from the socialization process (Levinson, 1959). Regardless of the philosophy chosen in interpreting the process, there is consensus that socialization processes in the professions are powerful.

Through the socialization process, individuals who survive and complete the process will emerge with a sense of self, an allegiance to the professional community, and will be influenced and motivated to serve the profession throughout their career. The professional person will achieve "identity, autonomy, commitment, and motivation." (Anderson, 1974, p. 17). Toombs's (1974) description of the character of graduate socialization illustrates the compelling and forceful nature of the process,

> "The objective of the process in all its intricacies is the socialization of the individual to a well-defined role. This orientation of personal values, attitudes, assumptions, and behaviors, along with the careful development of elaborate cognitive, linguistic and where necessary manipulative skills, probably makes doctoral study one of the most powerful examples of adult socialization, all the more striking because both entry and continuance are essentially voluntary (p. 2)."

Several studies of the professional socialization process have been reported. All of the studies have attested to the power and endurance of the experience. Though all professional socialization experiences have much in common, differences have been noted.

One strand of differences in socialization processes seems to cluster around the importance of mentors, reference groups, and socializing agencies. Merton, Reader, and Kendall (1957) reported that faculty, as well as professional staff and fellow students, all play important roles in the socialization process of medical students. Bragg (1974) has indicated that more medical students than law students name a role model as influential in their selection of the profession; however, a number of studies involving medical students have suggested that during the formal educational process, a

single role model or professor rarely has the influence of the total environment, that is, the socializing agency as operationalized by the professoriate collectively and the total hospital environment (Merton, et al., 1957; Mix, 1971). Becker, Geer, Hughes and Strauss (1961) identified the medical student peer group as the preeminent influence in the education of physicians. Their study indicated that mentor physician-teachers were not able to assess with validity the degree of learning and competence of medical students. For the medical student, the importance and influence of role models takes place during the residency and internship phases of preparation. Mix (1971), in a comparative study of graduate socialization processes, found that the processes across graduate programs were essentially equivalent with one major distinction. She discovered that the total environment was the preeminent force for professional students studying medicine and law, while the influence of a single professor was secondary. These findings were congruent with the earlier work of Merton, et al. (1957). However, Mix also reported that for most other graduate study progams, the influence of a single professor as role model and mentor, generally the chairperson of the student's committee or research advisor, was the dominant factor. Becker and Carper (1956) have reported that physiology students, most of whom wanted to enter medicine, did not enter graduate study with any degree of commitment to the field. Physiology students are reported to search for a role model among their professors, or to construct one from an aggregation of characteristics observed from several professors as they observe and learn what the relevant tasks of physiologists really are. Becker and Carper also reported that, in contrast to the physiology student, engineering students

exhibited commitment and strong identification to the field upon entry. Johnson, Branch, and Platt (1970) have noted that when students in dentistry entered graduate study, their experiences prior to admission have already equipped them with the factors significant to the acquisition of beliefs concerning the profession. The results of these studies are highly intriguing, and strongly suggest that the importance of role models and socializing agencies vary significantly across professions and critical periods of professional development.

Literature on the professional socialization process indicates that changes in individual students take place incrementally over a sustained period of time. Merton, Reader, and Kendall (1957) suggested that students gradually move from apprentice to professional as they acquire the necessary skills, knowledge, and attitudes of the special community they aspire to. Simpson's (1967) research also provided supported for this conception; significant changes were reported for student nurses in their first year and a half of graduate school. Huntington (1957) also reported similar findings concerning changes of self-concept over time in her study of medical students. The last two years of training seem to be critical to the transition in identity from student to physician for medical students. Kadushin (1969), in his study of music students, reported similar effects on self-concept, accounted for by exposure to graduate study over time and by a student's official class. Bragg (1976) has noted that elements of the selection process and measures of progress toward competence integral to the educational process serve as important sources of feedback and tests of professional commitment. Bragg has referred to these junctures, which include formal admission, qualifying

and comprehensive examinations, and the writing and defense of dissertations, as "sequential gateways" (p. 15). The work of Hall (1968) revealed that a student's passage through various transition points, such as doctoral comprehensive examinations, resulted in dramatic and rapid changes in self perception and role identification. Gottlieb (1961), in a study of graduate socialization processes involving a national sample of graduate schools and students, found that student career preferences were modified with progress in professional training. Gottlieb reported that career preference changes were congruent with student-faculty socialization experiences, integration with the department, academic department emphasis on research, and the opportunity to discuss career options with faculty. These studies support the contention that graduate school socialization processes result in significant changes in individuals throughout the formal educational process.

Other authors (Becker, Geer, Hughes, and Strauss, 1961; Bess, 1978; Lortie, 1959) have contended that the socialization process continues well beyond formal educational training into the stage in which initiates have been formally accepted as members of a professional community. For example, Becker et al. (1961) concluded that the context of the system within which medical students find themselves, and the strict control of and consistent denial of opportunities to accept professional responsibility, prevent the acquisition of a professional self-concept during the formal educational experience. Similar findings were reported by Lortie (1959) in his study of law students. Lortie found in the analysis of his survey data that a common reply regarding law school preparation for practice was an

indication of lack of preparation; he concluded that the major socialization of attorneys must take place in the years following law school. Bess (1978) concluded that for individuals entering the profession of college teaching, the socialization process would continue throughout the untenured years.

Even beyond acceptance into the profession as full-fledged members, other authors (Brim and Wheeler, 1966; Moore, 1969) maintain that occupational structures and particular occupations change so dramatically and so swiftly that any attempt to impart specific skills, knowledge, and norms is almost certain to be at least partially incorrect. Olesen and Whittaker (1970) characterized the formal institutional component of professional socialization as follows:

> "These years or months are but part of the long-range processes which constitute professional socialization, processes in play before students arrive in school and which continue after they have or have not graduated into practice of the occupation" (p. 217).

Thus, the beginning of an occupation or career will not mark the end of the socialization process; continuous socialization is required (Brim and Wheeler, 1966; Moore, 1969). The internalization of a professional identity signifies the success of a socialization process; at this time, it is hoped that commitment has been internalized as part of that role identity. Enduring commitment will insure continued learning and development to serve and represent well the professional community.

Faculty Socialization

The profession of college faculty has been held in very high esteem by the general public; coupled with this esteem are very high expectations and demands for service. Goode (1973) has included the profession of university

faculty with those of medicine, law, and the ministry as one of the "four great person professions" (p. 346). This term is reserved for only those professions in which acceptance of the calling implies transformation and acceptance of a special and all pervasive identity, not only by the individual but also by society. Provision of the intra-professional and the extra-professional orientations and dispositions acquired in the socialization process must be comprehensive to prepare the initiate for the demands and expectations fostered by the self, the profession, future employing insitutions, and the larger society.

Research on the profession of college faculty suggests that the occupational community of faculty is very pervasive. Anderson and Murray (1971) have pointed to the career of faculty member as one of the most obvious exceptions to the rule of separation of work from leisure. The activities and attitudes on and off the job overlap extensively. The faculty profession is one in which vacations and leisure time are often focused on professional interests and activities. Gerstl (1961), who studied dentists, advertising executives, and college faculty, found that separation of work from other aspects of life was virtually impossible for faculty members; this finding was shared by Reynolds (1988) in her study of new faculty at a research university. Gerstl found that college faculty were far more likely than the other professions studied to have very high proportions of their colleagues among lists of their ten and three best friends. Such friendship patterns demonstrate the overlap of social and work domains for faculty. Other research (Finkelstein, 1984) suggests that in addition to any personal enjoyment faculty may derive from their labors, the commitment and long

hours required by the profession hasten the extension of work to evenings and weekends. Gerstl (1961) observed that role convergence for faculty is evidenced by the correspondence between the work orientation and social life of faculty and concluded that the occupational community and geographic community of faculty are the same. Thus, the profession of college faculty is one of a very few professions in regard to its pervasive nature and demands. One must wonder how adequate preparation for such a profession takes place.

The process of socialization for the profession of college faculty clearly is initiated during the undergraduate college years when students observe a large number of college faculty. The undergraduate years of college are for most students exploratory in regard to occupational selection. It has been found that college faculty can have a very important impact in both the cognitive and affective development of students (Feldman and Newcomb, 1970; Hyman, Wright, and Reed, 1975; Wilson and Gaff, 1975). Moore (1969) has observed that individuals enjoying successful careers are usually quite able to recall the positive or negative influence of teachers spanning their educational histories in their occupational selection process.

For students considering the profession of college faculty, there is no other career in which each initiate has the opportunity to directly observe, interact with, and be influenced by more potential role models. However, undergraduate student exposure to faculty is truncated, in that encounters with faculty are generally limited to occasions when faculty are teaching and have the greatest opportunity to display self control and well developed prowess. Undergraduates know little about the other components of the faculty role such as research, committee work, service, advising of other

students, or other professional endeavors. Bess (1978) has described the impression of the faculty role shared by most undergraduates as a highly charasmatic one and, unfortunately, an impression that is prone to overidealization and often eventual disenchantment. Undergraduates, typically, search and psychologically "try on" a great many prospective occupations, and those attracted to the profession of faculty are drawn by the charismatic nature of what they observe and the prestige and status associated with the profession.

Bess (1978) has suggested that the public image presented by a profession affects the degree of commitment students are willing to make to an occupation. The status of "college professor" is usually ranked in the top ten in the United States (Hall, 1969; Hodge, Siegel, and Rossi, 1964; Landecker, 1981). Richman and Farmer (1974) contend the profession enjoys significant public support that is associated with an image of a small, elite profession commited to the pursuit of knowledge and scholarship. Austin and Gamson (1983) have described the mythology of academic culture as one in which satisfaction is inherently derived from the intellectual development of students and the production of knowledge for society. Such a perception has been supported in popular literature since the mid-19th century. This image, coupled with direct observation of a profession that is reported to be extraordinarily hard working, satisfied with their careers, and dedicated, should ensure continued and considerable commitment by prospective recruits.

This rather rosey depiction of the faculty life has eroded somewhat in recent years. Bowen and Schuster (1986) reported that faculty have

consistently indicated high levels of job satisfaction in a wide variety of studies conducted throughout the seventies and early eighties, but observe mounting evidence of concern among the professoriate regarding various conditions of work such as the quality of students, a perceived decline in the status enjoyed by the profession, and adverse trends in compensation. Despite a noted decrease in faculty morale, and evidence of careful advising from concerned faculty advisors to their graduate students considering the profession (Bowen and Schuster, 1986), there are a great many more qualified applicants than available college faculty positions.

A large segment of the professional socialization of faculty takes place during graduate school. Bess (1978) has suggested that firm commitment to the profession takes place at this time through the elaborate socialization and professionalization processes that take place during graduate school. To suggest that the graduate socialization process that all faculty receive is the same or similar in nature would be incorrect. Research concerning faculty socialization has indicated that, though there are similarities in the processes, there are also differences.

Despite the prevalent perception of the academic profession as a homogeneous group, a college faculty is composed of members of many different professional communities. Light (1974) stated the point succinctly: "The 'academic profession' does not exist." (p. 12). He continued:

> "Theoretically at least, we have the academic professions, one for each discipline. Each discipline has its own history, its own intellectual style, a distinct sense of timing, different preferences for articles and books, and different career lines which shift as segments of the profession alter." (p.12).

Light reported that members of the various academic disciplines lead different lives, spend their time differently, enjoy different colleagues, and very different careers. Graduate students preparing for faculty positions are steeped in a specific culture that socializes them to their different colleagues and careers.

Bess (1978) has stated that, for professionals entering the community of faculty, the educational and socialization process continues throughout the untenured years of the career. Bess stated that it is during this time that faculty are more fully socialized through the internalization and integration of the norms and values, more than the skills, of the profession and the institution. McGrath (1959) has noted that of all professions, only that of the college faculty requires advanced training that bears so little resemblance to future practice. There has been some evidence suggesting that the process engaged in during faculy members' early career years might best be described as "resocialization" where erroneous impressions of the role that were previously formed are corrected (Van Maanen, 1976; Wheeler, 1966).

Levinson (1959) observed that reference groups residing both within and outside of organizations are accessible to individuals through any number of means such as reading, personal contacts or professional meetings, and that the presence and influence of such groups make it quite likely that the role conceptions of individuals within a given position would not conform to chartered role definitions. As described earlier, the socialization process of professionals is quite elaborate and specifically incorporates many components that specify the importance and influence of the professional community as a reference group and the values, norms, sanctions, and

orientations associated with the professional community. Academic professionals have been described as particularly influenced through interpersonal channels (Hill and French, 1967) and norms shared by the professional community (DeVries, 1975; Gouldner, 1958).

Other researchers (Anderson and Murray, 1971) report that the nature of the content area within which faculty specialize impacts on the extent to which work and leisure can be differentiated. Faculty with academic appointments in the humanities and social sciences tend to be more constantly on the job than faculty with academic appointments in the physical sciences or engineering. The subject matter of their profession, society and culture, easily generalizes and pervades all areas of life. These individuals find themselves continually questioning, criticizing, and integrating the thought and theory of their profession with their daily observations. Whereas faculty in the physical sciences and engineering experience more distance between their work and other aspects of their lives. Faculty in the physical sciences and engineering resemble upper level white collar professionals more than their academic colleagues in regard to distance of work from leisure. Anderson and Murray (1971) contended that this separation of work from other activities may be largely due to the specialized equipment and technology associated with the physical sciences and engineering. It is clear that substantial differences exist across disciplines that are related to the specific content of the discipline. Some of these differences may also be attributable to the technology associated with the content area.

Research on the values and attitudes of the professoriate has also yielded very systematic differences across disciplinary groups. Ladd and

Lipsett (1975) reported that faculty members in different fields exhibit significantly different personal characteristics and attitudes. Ladd and Lipsett stated,

> "We commonly find greater differences of opinion among the various scholarly disciplines than we can locate among the most grossly differential groups in the general public, such as rich and poor, young and old, and white and black." (p. 2)

They observed systematic disciplinary differences across academic as well as political matters. Further, Ladd and Lipset reported that these systematic disciplinary differences in opinions, attitudes, and basic values existed across institutional types. Ladd and Lipset stated that while differences exist among faculty employed at major research universities, comprehensive, liberal arts, and community colleges, the differences are not as pronounced as the authors expected, nor were they as compelling as the disciplinary differences. The above findings support Light's contention that there are as many academic professions as there are academic disciplines. Given the evidence of prior self and institutional selection of initiates, the power of the professional socialization process, the autonomy that faculty as professionals enjoy, and the extended exposure of faculty recruits to their specific disciplines, it seems quite likely that differences in orientation to and perception of the faculty scholarly role will be evidenced in the study proposed. It is quite likely that a single modal role conception of faculty scholarship will not be found; it is much more likely that faculty orientation and attitudes regarding scholarship will follow disciplinary patterns.

CHAPTER III

METHOD

This chapter describes the procedures followed in this study. The study was conducted in five phases: (1) the pilot study for Stage-One data collection, (2) Stage-One data collection, (3) reduction of the attributes of faculty scholarship, (4) the pilot study for Stage-Two data collection, and (5) Stage-Two data collection. The results from each phase were incorporated in procedures for the subsequent phases. This chapter consists of five major sections, corresponding to the phases of the study.

The first section reviews the procedures for conducting the pilot study for Stage-One data collection. In this pilot study, the feasibility of having faculty members generate components and attributes of scholarship was tested, as were two competing response methods. The second section of the chapter describes the procedures used in Stage-One data collection, in which the components and attributes of faculty scholarship were proposed. The third segment of the chapter reports the procedures used for distillation of the attributes of faculty scholarship generated in Stage-One data collection for use in the final (Stage-Two) questionnaire. The validation procedures for attribute reduction are also described in this section. The fourth section of the chapter describes the development of the final survey instrument and the procedures for the pilot study of Stage-Two data collection. The final section of the chapter describes the procedures employed for Stage-Two data collection, in which faculty members completed the questionnaire and

weighted the attributes and components of scholarship on the basis of their importance within their own conception of faculty scholarship. Each major section includes subsections describing purpose, materials, sample, procedures, and analysis.

PILOT STUDY FOR STAGE-ONE DATA COLLECTION

Purpose

The purposes of the pilot study for Stage-One were: (1) to test the feasibility of having faculty members define components of scholarship, (2) to determine which of two survey response methods provided the best stimulus for the production of rich and precise descriptors of the qualities, characteristics, and attributes of faculty scholarship, and (3) to assess respondent interest and willingness to participate in the study. The pilot study was also designed to inform the modification of subsequent survey instruments, interview procedures, and data coding plans.

Materials

Two survey instrument forms were pilot tested to assess which was more effective for use in the main study. All faculty participants were asked to consider three reference groups of potential-scholar nominees: (1) individuals currently employed at the University of North Carolina at Greensboro (UNCG), (2) individuals currently active as scholars but not currently employed at UNCG, and (3) individuals from the past, perhaps personal mentors, who might have influenced the development of their current attitudes and values regarding scholarship. All faculty participants were asked to consider the three sets of scholars and to specify their scholarly attributes. The third group, scholars of the past, might have been personal

mentors, major faculty in graduate school, colleagues, or others influential in the participant's professional development and current conception of scholarship. Including this reference group in the study was intended to more directly tap the important and personal socialization processes engaged in by faculty and therefore stimulate richer reflections upon the nature of scholarship.

Participants were asked to identify and describe up to four nominees in each of the three categories. All faculty participating in the study were told that the intent of providing additional external reference groups was to ensure that the specification of scholarship not be limited by the population of faculty employed at the local institution or by limited exposure to, or knowledge of, local UNCG scholars. The forms of the survey instruments differed by requiring different response methods for specifying the qualities, attributes, and components of faculty scholarship. Form A, the List method, (see Appendix A) requested faculty participants to provide lists of the qualities prompting them to consider their nominated individuals as scholars. Form B, the Narrative method, (see Appendix B) requested faculty participants to provide a brief written description of each of their nominees' scholarly qualities.

Sample

Faculty members selected for participation in the pilot study originated from larger academic units spanning the UNCG campus to ensure that, in the event procedures and materials were modified dramatically, sufficient numbers of unsampled faculty would remain to compose a representative sample of faculty to be used for Stage-One data collection. Four faculty

members from each of five academic units (Biology, English, Mathematics, Music, and Nursing) were randomly selected from strata defined by the academic ranks of full professor, associate professor, assistant professor, and lecturer, to form a pilot study sample of 20. The two forms of survey instrument (two of Form A and two of Form B) were randomly assigned to the four participants sampled from each of the five academic units.

Procedures

Each of the sampled faculty members was contacted by the researcher and told that a dissertation study was being planned to explore faculty scholarship. At this face-to-face meeting, sampled faculty were told that their participation would involve the specification of faculty scholarship from their individual point of view and that their responses would be confidential. All subjects who agreed to participate were provided a survey instrument which was reviewed to ensure that participants knew what was requested. Participants were invited to use computers, word processors, typewriters, or pens and pencils to complete the tasks. The investigator then made an appointment to return in about a week to pick up the survey instrument and interview each respondent.

The researcher returned at the appointed time to collect and review the survey data with each participant, in order to confirm and clarify their responses. The procedures followed varied slightly for faculty assigned different forms of the instrument. For faculty assigned Form A, all entries were reviewed to assure the legibility of handwriting. The investigator then asked participants to do some retrospective "thinking aloud" while their responses were reviewed. In this way, the uniformity or disparity of

respondent perception of the tasks assigned was determined. If participants in the study were addressing essentially different tasks, then the aggregation of responses to specify the content domain of faculty scholarship would be inappropriate. Participants were also asked to elaborate on entries with multiple or perhaps ambiguous meanings. For example, respondents were uniformly requested to elaborate on entries such as "creative", "productive", or "committed" with a prompt such as, "What specifically do you mean by 'creative'?" In this way, attributes more descriptive of the participant's true conception of the essence of scholarship might be discovered. After reviewing the responses for the three reference groups, faculty were asked three questions:

"What factors do you think influenced your conception of scholarship?"

"Are there other components of scholarship, perhaps not applicable to your scholar nominees, that might be applicable to others?"

"Are there further entries you would like to make on the basis of your reflections?"

Further information regarding scholars listed who were not employed at UNCG was sought to clarify the identity of the scholars, where they work, and what they do.

A series of uniform questions was then asked of all respondents to assess the viability of the data-collection procedures. Participants were asked:

"How would you describe your level of interest in the study as a whole?"

"How would you describe your level of interest in the scholarship of each of the three reference groups used in the study?"

"How would you describe your motivation to complete the study?"

"How would you describe the level of difficulty of the tasks?"

Faculty were then asked to report on the perceived validity of the data collected with the following questions:

"Do you think the information I have asked you to provide conveys the essence of your definition of faculty scholarship? Why or why not?"

"Did you encounter problems while attempting to complete the tasks?"

"Would you like to make any suggestions for improvement in the procedures used for this study?"

The two response methods tested were then described to the respondents, and each was asked which of the two response methods they would have selected if a choice had been provided. Participants were encouraged to call the investigator to make additions to their entries if any occured to them later.

For pilot-study faculty assigned Form B, the researcher reviewed the narrative descriptions of scholars with the participant to ensure that handwriting was correctly translated. The investigator then made another appointment to return to review and validate the listing of components of scholarship generated from the narrative descriptions provided by the participants. The researcher then converted the narratives into lists of attributes, comparable to the lists on Form A. Upon return, each participant was asked to review the listing of attributes of faculty scholarship that the investigator had derived. Additional questions were asked and clarifications

sought to provide a complete and validated listing of the components of scholarship proposed by faculty participants. All modifications suggested by respondents were incorporated into the final listing of faculty scholarship attributes generated by each participant. After the review and validation of attributes, the exit interview procedures paralleled those employed with faculty assigned Form A.

Analysis

All data were reviewed to assess the feasibility and practicality of having faculty propose the components of scholarship. The effectiveness of the two data generation methods and the three reference groups were assessed and compared. The effectiveness of the data collection procedures was assessed quantitatively as well as qualitatively.

Quantitative assessment of the data collection procedures included computation of faculty participation rates and measures of total frequency and variation. Faculty participation was considered prerequisite to the success of the study. Large numbers of faculty unwilling to participate could indicate systematic error in generating the components of scholarship, and such bias could signal failure to develop an amalgam of attributes of faculty scholarship representative of the general faculty. Therefore, the level of participation of faculty randomly selected as subjects was the first criterion for assessment of the success of the data collection procedures. Additional indicators of the quantitative effectiveness of data collection were the total number of components of scholarship generated overall and by the competing methods for the three reference groups. The numbers of components generated by competing methods and reference groups were compared. Variation in

generation of components of scholarship was measured by counting and comparing the number of entries uniquely generated by each method and reference group.

Qualitative assessment of the effectiveness of the data collection methods included: (1) reports on interest in the study, (2) reports on motivation to complete the tasks, (3) reports of the process followed to complete the task, and (4) reports of the quality of the information the faculty members provided.

The level of interest and motivation of faculty to diligently complete the tasks would have to be high to support the success of the data collection procedures, the validity of the data collected, or confidence in the results. Therefore, the questions asked in the exit interview were evaluated to assess levels of interest, motivation, and persistence throughout task completion. If faculty members indicated a loss of interest toward the end of the survey, or with a particular section, the instrument, and perhaps the number and nature of the tasks required, would have to be modified to increase sustained interest, attention, and motivation.

Assessing the quality of the entries produced clearly represented a more difficult task, albeit critical to the success of the study. Quality of entries is an indicator of the construct validity of the components generated by the procedures prescribed. Given high levels of faculty participation, interest, and motivation, this was a critical factor in the determination of the adequacy of the data collection procedures. What might represent "quality" in a listing of components of scholarship? Although this represents a construct validity

issue, in the absence of theoretical expectations, construct validity could not be assessed.

In the interim, two means of assessing the quality of the components generated in the pilot study were identified: (1) asking respondents to describe the process they followed as they completed the tasks, and (2) directly querying participants as to whether the information they had provided conveyed the essence of their definition of faculty scholarship. The first assessment, although indirect, allowed for determination of the extent of uniformity or disparity of perception of the tasks assigned. If respondents were addressing essentially different tasks, then it would be difficult to contend that the product of their efforts uniformly relate to a single construct, faculty scholarship. The second method of assessing the quality of the information gathered more directly addressed the construct validity issue. Clearly, a single entry could not distinctly capture a complex construct such as scholarship; however, the formation of an amalgam of components, each playing a part in the description and discrimination of scholarship, might. A relevant and compelling test of the viability of the methods employed was an endorsement of the legitimacy of the data generated. Therefore, participant responses to the question regarding their perception of the extent to which the information gathered conveyed the essence of their definition of faculty scholarship were reviewed.

The data were also reviewed to identify additional socialization, individual, or current-institutional factors that might be included in a later survey instrument. More specifically, faculty responses to the question regarding influences on their conception of scholarship were reviewed with

interest. The data collected from the pilot study was also used for the design of a data coding plan. The survey instrument and procedures were modified as advised by the results of the pilot study. It was determined that if modifications made to the final Stage-One survey instrument were considered minor, data collected from the pilot study would be included for analysis with that collected in the main Stage-One study.

STAGE-ONE DATA COLLECTION

Purpose

Stage-One data collection was designed to provide as complete a specification of the attributes, qualities, and characteristics defining the content domain of faculty scholarship as possible. The procedures and results of the pilot test were reviewed as a basis for refinement of the questionnaire and procedures used in Stage-One data collection.

Materials

The response method incorporated in the Stage-One survey instrument was determined by review of the pilot test results. It was determined that faculty would be allowed to respond to the tasks in the manner most conducive to their participation. The instrument employed for Stage-One data collection is presented in Appendix C. Responses written in a listing type of format were treated as Form A in the Stage-One pilot study, and responses submitted in a narrative format were treated in a manner parallel to Form B responses in the Stage-One pilot study.

On the basis of the quality and quantity of faculty scholarship attributes and characteristics generated by the three reference groups in the pilot study, all reference groups were retained for Stage-One data collection. Pilot study

participants were asked to nominate and describe four scholars within each reference group. Analysis of the pilot study data revealed that less than 3% of the attributes generated from descriptions of the fourth scholar in each of the reference groups represented new information. Therefore, respondents in Stage-One were requested to nominate and describe only three scholars within each reference group.

Sample

The literature on faculty socialization and performance has suggested that academic discipline and faculty status are strong predictors of faculty values (Ladd and Lipsett, 1975; Ladd, 1979) , productivity (Study Group on the Condition of Excellence in American Higher Education, 1984; Creswell, 1985, 1986), and activities (Biglan, 1973a, 1973b). Therefore, the sampling design for Stage-One data collection incorporated academic department and rank within department as classification variables from which nonoverlapping strata were formed. Strata were defined by the assignment of departments to the major Higher Education General Information System (HEGIS) code areas said to be representative of general bodies of knowledge. Using this stratification scheme, academic programs at UNCG were represented in 17 of the major code areas.

While the use of HEGIS codes for the development of strata offered a much greater level of precision than that generally employed in research in higher education, the pooling of Theatre, Art, Dance, and Music into a single stratum did not appear prudent in light of pilot study data. A large number of attributes generated in the pilot study focused directly on specific content, methods, processes, and products within a given discipline. Examples of

attributes of faculty scholarship from the pilot study illustrative of such differences include: "outstanding performer," "compose across media," "develop useful computer program," "clinical expertise," and "excellence in clinical instruction and supervision." It seemed clear that the methods, objectives, and products employed within the Fine and Applied Arts stratum were quite different. The pilot study data did not support the assumption that the attributes of scholarship generated by faculty in the School of Music might reasonably be expected to represent the attributes of scholarship that might be generated by faculty in Art, Dance, and Theatre. Further, the four academic units represented in this single stratum reside in three different Schools within the institution. It was therefore decided to divide this stratum into four separate strata: Art, Dance, Music, and Theatre.

The Stage-One pilot study sampled faculty from six of the HEGIS code strata: Biological Sciences; Computer and Information Sciences; Fine and Applied Arts; Health Professions; Letters; and Mathematics. One Computer Science faculty member was randomly selected from the Mathematics department in the pilot study. Fourteen previously unsampled strata were thus identified. It was decided to select a minimum of two faculty members randomly from each of the strata. One of the faculty members selected from each stratum would hold the academic rank of excellence, full, or associate professor, and the other sampled faculty member would hold the rank of assistant professor or lecturer. The first faculty member selected from each stratum was selected with all members given equal probability of selection. The second faculty member identified from each stratum was selected with all faculty members of appropriate rank given equal probability of selection. An

additional faculty member was sampled from the Computer and Information Sciences stratum to include participation from the Information Sciences and Operations Management department of the university.

To further enhance the representativeness of the sample, two additional sampling rules were developed: (1) if more than one department was represented within a single stratum, the two faculty members selected from the stratum could not be drawn from the same department; and (2) if a single stratum had more than 45 faculty members within it, one additional faculty member would be selected by following the above rules.

This sampling plan resulted in the selection of 32 participants for Stage-One data collection. Faculty with part-time, visiting, teaching assistant, research associate, instructor, or courtesy appointments were not included in the definition of the population.

Procedures

Sampled faculty were contacted by the researcher and told that they had been randomly selected for participation in a study exploring the concept of faculty scholarship. They were told their responses would be confidential and their participation involved the specification of faculty scholarship from their own point of view. The participants were asked to specify the qualities, attributes, and components of scholarship by actually naming scholars and listing the reasons why they considered them scholarly. All subjects agreeing to participate were provided a survey instrument which was reviewed at this face-to-face meeting to ensure that participants knew what was requested. Sampled faculty choosing not to participate were replaced, if possible, by another randomly selected faculty member from the same sampling stratum.

Nonparticipation and replacement of nonrespondents was carefully reviewed for detection of possible bias. The researcher then made an appointment with all participants for the collection of the survey instrument in about a week.

The researcher later returned to collect and review the survey data with each participant to clarify and confirm entries as specified in the discussion of the pilot study. The review procedures used in the final interview with faculty respondents paralleled those in the pilot study and are presented in Appendix D. Further information regarding listed scholars not employed at UNCG was sought to clarify identity, location, and occupation. If the narrative form of response method was used by the respondent, the researcher made another appointment and returned to review and validate with the participant, the listing of qualities, attributes, and components of faculty scholarship generated from the narrative descriptions, as previously described. When the researcher returned for the final interview, the review procedures followed those in the pilot study and outlined in Appendix D.

Analysis

The analysis of Stage-One data largely paralleled that conducted in the Stage-One pilot study. Because modifications in data-collection methodology and the final survey instrument were minor, the data collected in the pilot study were pooled with those collected in Stage-One. Quantitative and qualitative forms of analyses were conducted.

The quantitative components of analyses included: (1) assessment of participation rates, (2) computation of the total number of attributes of scholarship generated in Stage-One data collection, and (3) review of the total number of attributes of faculty scholarship uniquely generated by a single

subject in Stage-One data collection. All of the quantitative results were compared with the results obtained from the pilot study.

The pilot study provided sufficient data to develop realistic expectations of participation for Stage-One data collection. Faculty participation was considered a critical prerequisite to the success of the study. Response rates lower than those achieved in the pilot study would signal the potential of administrative or procedural error. Non-uniform response rates could indicate that some form of systematic bias had been introduced into the generation of components of scholarship. Random replacement from within the same strata of faculty opting not to participate was employed to assist in limiting the extent of bias that entered the study; however it must be stated that such replacement might not eliminate biasing effects.

The high participation rate evidenced in the pilot study established a rigorous standard for assessing the adequacy of Stage-One data collection procedures. A total of 19 of the 23 faculty members contacted, or 82.6%, participated in the pilot study. Four faculty members declined or withdrew from participation in the pilot study. Three of these faculty members were replaced by randomly selected faculty following the established sampling rules. The fourth faculty member could not be replaced due to time constraints imposed by the pilot study data-collection schedule.

The total number of attributes generated during Stage-One data collection was expected to increase with the addition of subjects and representation from new academic strata. The total number of proposed attributes of scholarship was of particular interest in planning the final survey instrument for Stage-Two data collection.

The total proposed number of unique attributes of scholarship was also of substantial interest, in light of its potential as a tentative indicator of the heterogeneity or homogeneity of perception of the construct. This measure was also reviewed as a potential indicator of the adequacy of sampling procedures. If the number and percentage of attributes uniquely proposed by respondents grew larger and larger with the addition of subjects, it would have to be concluded that the content domain of the construct under inquiry was vast and not well specified. However, if the number of unique attributes or the percentage of the total attributes proposed by a single respondent diminished significantly with the addition of subjects, then some confidence could be claimed for the adequacy of the specification of the content domain. Therefore, the total number and the percentage of the total number of attributes proposed by a single respondent resulting from all Stage-One data collection was compared with the corresponding statistics generated from pilot study data.

The qualitative components of the analysis of data included summarization of: (1) participants' reported interest in the study, (2) participants' reported difficulty of the tasks, (3) participants' reports on the processes followed to complete the task, and (4) participants' responses regarding the quality of the information they had provided. These results were reviewed to assess the overall effectiveness of data collection procedures.

Formation of a comprehensive list that described the content domain of faculty scholarship was the prime objective of Stage-One data collection. All survey forms were reviewed for the purpose of preparing a master list of

the qualities, attributes, and characteristics of faculty scholarship submitted by the sampled faculty. This master list of the components of scholarship was used to develop the survey instrument employed in Stage-Two data collection.

While the purpose of Stage-One data collection might appear simple and straightforward, a number of potential concerns could not be addressed prior to data collection. One potential area of concern related to the manner of presentation of the components of scholarship for weighting by faculty during the second stage of the study. It could be argued that a comprehensive listing of the components of scholarship should be presented in random order. Such an approach might guard against response and method bias that could enter if the components of scholarship were presented in some precategorized fashion. However, the number of components was unknown prior to their generation, and it appeared likely that if there were a great number of attributes, the task of assigning independent weights to all of them would become burdensome for respondents. Such a lengthy task would introduce two potentially biasing components: (1) fatigue, and (2) response interference. Each potential source of bias was considered.

The first component of bias, fatigue, would be introduced if an excessively large number of attributes of scholarship was generated in Stage-One of data collection. The effects of fatigue during the weighting procedure would have to be effectively controlled to warrant confidence in the weights faculty assigned to attributes. Several strategies were identified to reduce fatigue. It seemed likely that a large and comprehensive list of components would include a number of synonymous entries. It was understood that a

study of this nature would, of necessity, involve subjective, perhaps idiosyncratic, use and interpretation of language. However, if an extremely large number of components and attributes were generated in Stage-One data collection, some reduction of the attributes of faculty scholarship would be necessary to enhance the likelihood that each attribute of scholarship was considered carefully and that a high response rate by faculty could be obtained. Another method of controlling fatigue effects involved the preparation of several forms of the comprehensive list of attributes of scholarship, which would systematically alter the order of presentation of blocks of attributes during the second stage of data collection.

The second component of bias, response interference, can be likened to asking participants to respond to a number of inherently different tasks, such as true-false, essay, multiple choice, fill-in, and short answer problems presented in a random order without preorganizers. Such procedures require participants to place each task within a conceptual framework before they can respond appropriately. A similar condition might be introduced in this study if the components of scholarship generated were quite numerous and faculty were asked to weight components requiring consideration of various conceptual frameworks prior to responding. Such a condition of response interference, if present, might contribute to a marked decline in respondent motivation and increase the likelihood of fatigue. If a large number of components of scholarship were generated in Stage-One, it would become necessary to provide some form of organization to the components to enable respondents to more readily weight the attributes.

Although the provision of temporal and visual breaks to ease the task of weighting the attributes was recognized as necessary if a very large number of attributes were generated in Stage-One, the danger of imposing a structure on the attributes of scholarship was also considered. Since a major research question in this study was to identify the significant dimensions of faculty scholarship, undue structuring and organization of the attributes within the questionnaire could affect the outcome of the inquiry. For example, if the traditional three components of the faculty role (i.e. research, teaching, and service) were selected for the organization of attributes, and if these roles were later identified as the three most significant dimensions of faculty scholarship, it would be difficult to assert that the dimensionality was derived from the independent weights faculty assigned to attributes rather than the structure of the questionnaire. Therefore, any formulation of categories and assignment of attributes within categories would need to be quite broad, and perhaps arbitrary, in design. Components of scholarship could be grouped into broad categories that addressed faculty activities, products, skills, or orientations to facilitate respondents' completion of the tasks assigned.

All of the above issues were considered in a review of the data collected in Stage-One and when formulating plans for preparation and design of the final survey instrument to be used in Stage-Two data collection.

REDUCTION OF THE ATTRIBUTES OF SCHOLARSHIP

Purpose

Stage-One of the data collection produced a very large number (462) of components and attributes of faculty scholarship. The purpose of the reduction of the attributes of faculty scholarship was to: (1) eliminate

redundant attributes, (2) combine and reduce attributes that could be subsumed by other statements, (3) eliminate attributes descriptive of the idiosyncratic style or personality of individuals, rather than scholarship, and (4) produce a representative listing of the attributes of faculty scholarship that would enable faculty to respond to the questionnaire and more carefully consider, and independently weight, each of the attributes.

Materials

The set of attributes of faculty scholarship proposed during Stage-One data collection was combined and reduced following a set of decision rules. The following decision rules were employed to govern the attribute reduction process: (1) attributes and components consisting of semantic equivalents but syntactic variants were combined, and (2) attributes and components that could be subsumed by other statements were collapsed. Attributes of scholarship were grouped according to the above-stated rules and tentative labels were proposed for each group. The proposed attribute groups and their tentative labels formed the first of three sections of the Validation of Attribute Reduction Instrument (Appendix E). Each of the attribute groups and their associated tentative labels were reproduced for validation by a panel of judges who were asked to work independently and decide whether the decision rules were appropriately applied during the reduction procedure. This section of the procedure had two components.

The panel members were first asked to judge whether or not attributes presented within a group belonged together. Judges were asked to mark one of two boxes labeled YES or NO. A total of 105 attribute groups were reviewed by the panel. If a judge indicated NO (the grouping is not appropriate), (s)he

was asked to indicate which attribute(s) do(es) not belong within the group and to write a brief rationale for his/her decision. The second component of this procedure involved a judgment regarding the appropriateness of the tentative label assigned to each group of attributes. Again, two boxes labeled YES or NO were provided for the judges to indicate their decisions. A total of 105 tentative labels were reviewed by the panel. If a judge indicated NO (the label is not appropriate), (s)he was asked to provide an alternative label and to write a brief rationale for his/her decision. The first of three sections of the Validation of Attribute Reduction Instrument required review of the attribute groupings and tentative labels assigned to each group.

The second section of the Validation of Attribute Reduction Instrument was composed of attributes under consideration for deletion. Review of the components and attributes generated in Stage-One revealed a number of attributes that appeared to be idiosyncratic to particular scholar nominees and not pertinent to the construct of faculty scholarship. The procedures used in Stage-One requested faculty to describe scholarly individuals as a stimulus for the generation of the components and attributes of faculty scholarship. Thus, descriptors of an individual scholar's personal style or characteristics, rather than attributes pertinent to the construct of scholarship, may have inadvertantly been introduced. Attributes descriptive of an individual scholar's personal style, personality characteristics, or other idiosyncratic features were nominated for deletion from the item pool. Judges were asked to independently determine whether or not these attributes should be retained or deleted, by marking a box labeled YES or NO to indicate their judgment regarding the deletion or retention of each of the

nominated attributes. A total of 49 attributes were reviewed by the panel for possible deletion. If a judge marked NO (the attribute should not be deleted), (s)he was asked to provide a brief rationale for his/her decision.

The third and final section of the Validation of Attribute Reduction Instrument requested the panel of judges to review attributes of scholarship that were not amenable to either combination or deletion. These attributes are referred to as unique attributes. Judges were provided a complete listing of the unique attributes to enhance their understanding of the breadth and depth of the attributes identified in Stage-One of the study. The participants in the validation of the attribute reduction procedures were not asked to make judgments regarding these unique attributes; the listing was provided for information purposes only.

Sample

Five faculty members were selected for participation on the panel of judges. Three of the faculty selected for participation were members of the doctoral dissertation advising committee. These individuals were included on the panel due to their familiarity with the purposes, methods, and objectives of the dissertation study and the variety of their academic affiliations (Educational Administration, Mathematical Statistics, and Institutional Research). Two additional panel members were selected from the larger faculty population. One panel member was selected from the Fine and Applied Arts major HEGIS code area due to the number of attributes of scholarship pertaining to these areas. An additional faculty member was selected from the Letters major HEGIS code area because of the emphasis on language involved in the attribute reduction process and its review.

Procedures

Each of the faculty members selected for participation on the panel of judges was personally contacted by the researcher. Each potential panel member was provided with a review of the purposes, objectives, and procedures of the research project. The potential panel members were told that their participation would involve review of the attribute reduction procedures to determine whether the specified rules were appropriately applied. Faculty agreeing to serve on the panel were provided a copy of the Validation of Attribute Reduction Instrument, which was reviewed in detail during this face-to-face meeting. Participants were reminded that review of attributes in the proposed deletion list should be considered with reference to their appropriateness within the framework of the scholarly role of a faculty member from any discipline, not just their own. At the end of this session, the researcher made an appointment to retrieve the completed validation instrument.

Analysis

When all validation instruments were returned and reviewed, the content of the final survey questionnaire was determined. The agreement of four of the five panel members was necessary for a proposed attribute grouping, tentative label, or proposed attribute deletion, to be considered validated. If two or more independent judges deemed the assignment of attributes to a group, a tentative label, or a proposed attribute deletion as inappropriate, the final questionnaire was modified using the written rationale submitted by those panel members. For example, if more than one member of the panel objected to the inclusion of an attribute within a

proposed attribute cluster, that attribute was deleted from the proposed cluster and appeared in the final survey instrument as a unique attribute. Similarly, if more than one of the panel members objected to a tentative label assigned to a proposed attribute cluster, the label was modified in accordance with the written rationale provided by those judges. Further, if more than one of the judges objected to the deletion of an attribute in the second section of the Validation of Attribute Reduction Instrument, the attribute was retained in the final survey instrument. Thus, the composition and number of attributes to be included within the final survey instrument was determined through analysis of the decisions of the panel of judges.

PILOT STUDY FOR STAGE-TWO DATA COLLECTION

Purpose

The purposes of the pilot study of Stage-Two data collection were to: (1) assess respondent interest and willingness to participate, and thus estimate response rate for the main-stage data collection, (2) determine the effectiveness of the cover letter, (3) assess the clarity of instructions for each section of the questionnaire, (4) estimate how long it would take a respondent to complete the questionnaire, and determine whether respondents completed the questionnaire in one session, (5) determine if respondents felt attributes of faculty scholarship were missing from the questionnaire, (6) review the data collected to determine the feasibility of the proposed data coding plan, and (7) determine reasons and possible solutions for participant nonresponse.

Materials

The questionnaire used for pilot study data collection consisted of four parts Part A: Current Activities; Part B: Attributes of Faculty Scholarship; Part C: The Pursuit of Your Highest Academic Degree; and Part D: Current Perceptions and Influences on Scholarship. The survey instrument used in the pilot study is presented in Appendix F.

The first section, Part A, requested information regarding current institutional and individual attributes and activities not available from University records. Part B presented the distilled, not-yet-validated list of faculty scholarship attributes proposed in Stage-One of data collection. Faculty were asked to weight each attribute in relation to its importance within their conception of faculty scholarship, as that conception applies to faculty members within their field or discipline. Participants were asked to assign weights using a six-point scale ranging from zero to five. They were told to assign zero if the attribute had "no importance whatsoever" to their conception of faculty scholarship and to assign a five if they considered the attribute to be of "very high importance" within their conception of faculty scholarship.

The attributes of scholarship from the distilled listing of attributes produced by Stage-One of data collection were assigned to four broad categories: (1) Activities in which Faculty Members Engage; (2) Faculty Members' Professional Characteristics and Orientations; (3) Faculty Members' Skills, Tools, and Techniques; and (4) The Influence Faculty Have on Their Field and Others. The categories were formed to temporally and visually divide the task of responding to the questionnaire. The order of presentation

of attributes within each of the broad categories was randomly determined. To further counteract the effects of response bias due to fatigue, four forms of the second section of the questionnaire, in which the four broad categories of attributes were systematically ordered, were prepared. Each form of the second section of the questionnaire included all of the distilled faculty scholarship components. The four forms of presentation of the attributes of scholarship were assigned to faculty in the pilot study in a linear-systematic, or spiral, fashion.

Part C of the questionnaire requested respondents' perceptions of experiences, mentoring, and the academic department and institution from which they received their highest academic degree. Part D, the final section of the questionnaire, requested current faculty perceptions of various influences on faculty scholarship at individual, departmental, and institutional levels.

Sample

A sample of 25 full-time faculty members from academic units was randomly selected from the population. The sampling design incorporated academic department as a stratification variable. Strata were defined by the assignment of departments to the major HEGIS code areas said to be representative of general bodies of knowledge. Using this stratification design, UNCG academic programs are represented in 17 of the general bodies of knowledge.

The first 17 members of the sample were randomly selected from each HEGIS stratum with all members within each stratum given equal probability of selection. To enhance the representativeness of the sample, the remaining eight faculty members were selected using three additional sampling rules: (1)

an additional member of the pilot study sample was randomly selected from the eight strata with the largest number of faculty members represented within them, (2) if more than one department was represented within a single stratum, the two faculty members selected from any given stratum could not be drawn from the same department, and (3) the second faculty member selected from any given stratum could not hold the same academic rank as the first sampled faculty member.

Additional information regarding the questionnaire and the procedures employed was gathered from a subsample of the pilot study sample. A subsample of eight faculty members was randomly selected from the pilot study sample prior to mailing the questionnaires. The subsample was formed for the purpose of gathering additional information regarding participants' response to the cover letter, whether respondents completed the survey instrument in one session, reasons for nonresponse to the questionnaire, suggested improvements in procedures and materials, response to the follow-up procedures, clarity of instructions and responses to the questionnaire, and participants' level of interest in the study of faculty scholarship.

Procedures

Pilot study questionnaire packets were distributed via campus mail to the sampled faculty members. Each questionnaire packet included a cover letter describing the purposes of the study and requesting participation, the survey questionnaire and its instructions, and a return address mailing label listing the researcher's campus address. Ten days later, a follow-up postcard was sent to all members of the pilot study sample. This postcard thanked

participants who had already completed and returned their questionnaires and urged those who had not done so to respond at their earliest convenience. Two weeks later, a complete packet of survey materials with a new cover letter (again requesting participation) was sent to members of the pilot study sample who had not yet returned the survey questionnaire.

Each member of the pilot study subsample was individually contacted by the researcher after all follow-up procedures had been conducted. At this face-to-face meeting, the purposes and procedures of the study were reviewed, and the faculty members were asked a number of questions intended to improve the final questionnaire and procedures. The researcher provided copies of all survey materials for review by each member of the subsample. The procedures and questions asked of the pilot study subsample are presented in Appendix G.

Analysis

Questionnaires were reviewed and processed upon their return to the researcher. The percentage of faculty within the sample that completed and returned the questionnaire at each stage of mail-out and follow-up was considered of critical importance. Each questionnaire was reviewed for comments and clarifications which were requested of respondents. Of special interest were systematic omissions toward the end of any section(s), which might be evidence of fatigue or lack of motivation to complete the tasks.

The pilot study subsample interview data were reviewed to glean additional information to improve the final survey instrument and procedures to be used in the main-stage of data collection. The data coding

and data entry plans for Stage-Two data collection were also reviewed and modified as a result of the pilot study.

STAGE-TWO DATA COLLECTION

Purpose

The final stage of data collection provided the data with which the research questions of the study were answered. The major research questions of the dissertation were: (1) How is faculty scholarship defined by faculty at UNCG? (2) Can variance in the dimensions of faculty scholarship be explained through role theory? and (3) Can the modal role conceptions of faculty scholarship be identified?

Materials

The survey instrument used for the final stage of data collection differed slightly from that used in the Stage-Two pilot study, incorporating the results of the attribute reduction validation procedures and the Stage-Two data collection pilot study. The final survey questionnaire consisted of four parts Part A: Current Activities; Part B: Attributes of Faculty Scholarship; Part C: The Pursuit of Your Highest Academic Degree; and Part D: Current Perceptions and Influences on Scholarship. The survey instrument that was distributed to the faculty in Stage-Two is presented in Appendix H.

An additional set of data consisting of information concerning individual faculty members that could be gathered from university records was developed by the researcher. These data included information concerning age, sex, ethnicity, length of service with UNCG, rank, tenure status, highest academic degree earned, career age, Carnegie classification of the institution from which the highest degree was conferred, HEGIS code

classification of the highest academic degree earned, HEGIS code classification of the academic teaching area, academic department, administrative title, and whether or not a faculty member had a twelve-month appointment with the university. These data were obtained from existing University records in an effort to reduce the length of the survey instrument.

Sample

Most studies of scholarship have involved the participation of samples of faculty drawn from individual institutions, consortiums, or national data bases. While conducting a census is often overly expensive and inefficient, the purposes and proposed analytical procedures of this study warranted the collection of data from all possible participants. The population of all full-time faculty at UNCG with traditional appointments to academic units is not extraordinarily large; the population consisted of approximately 530 faculty members in the 1988-89 academic year. The proposed data analysis techniques required large sample sizes. Further, the number of components of scholarship to be weighted by participants was unknown at the planning stage. The more successful the proposed procedures for generating components of faculty scholarship, the greater the number of independent observations that would be needed to warrant confidence in the results of the analyses. And finally, given the extent of model-fitting required in the proposed analyses, a replication of significance tests across two stratified samples of participants was planned to enhance the confidence in study results by testing, and hopefully demonstrating, the reliability of findings.

The subjects requested to provide data during the final stage of data collection consisted of the full population of all full-time faculty, not

previously sampled in the Stage-Two pilot study, who were assigned to academic units. Individuals with visiting, teaching assistant, research associate, instructor, or courtesy appointments were not included in the definition of the population. Deans and Associate Deans were also asked to participate in the study.

Procedures

The procedures followed in Stage-Two of the study incorporated two phases: (1) a preparatory phase, and (2) a main-stage data collection phase. In the preparatory phase of data collection, introductory letters were sent to two different faculty groups at UNCG. The first letter was sent to every faculty member who participated in the Stage-One data collection activity. This letter described the results of the first stage of data collection, thanked the faculty for their participation, and solicited their support for the final stage of data collection. Given the exceptionally high response rate of this sample of faculty during Stage-One of data collection and their high investment and interest in the study, this cohort was considered an important resource in the project. The Stage-One faculty participants were told that the project would enter its final stage in a few weeks, and they were specifically requested to speak with, and encourage, their colleagues to complete and return the survey questionnaire. The second letter was sent to all members of the faculty population. This letter described the dissertation project, indicated when the questionnaire materials could be expected, and requested the participation of the faculty. The letter also indicated that the results of the study would be shared with the university and the educational research communities.

The main-stage data collection procedures paralleled those used in the pilot study. A survey material packet, consisting of a cover letter, questionnaire, and return mailing label, was delivered to each full-time faculty member via campus mail. The cover letter informed faculty that their responses would be confidential. Participation in the study requested the completion of two tasks: (1) completion of the survey questions regarding socialization, individual, and current-institutional factors, and (2) assignment of weights to each of the attributes and characteristics of faculty scholarship in accordance with their perceived importance within the participant's conception of faculty scholarship. All faculty were asked to carefully complete the survey and return it to the investigator, using an enclosed return address mailing label, via campus mail. Ten days later, a follow-up postcard was sent to all members of the faculty population. This postcard thanked the faculty who had already completed and returned the survey questionnaire and urged those who had not completed the survey to do so. Two weeks later, a final follow-up packet was sent only to nonrespondents. The follow-up packet consisted of a new cover letter, a survey questionnaire, and a return address label.

Analysis

When all available data had been collected and coded, the research questions were addressed using the following procedures.

Research Question #1: What are the dimensions and components of faculty scholarship?

The weights assigned by faculty to the attributes and qualities of faculty scholarship were correlated. The resulting correlation matrix was analyzed in

several ways to determine the appropriateness of factor analysis. The following indices served to inform the decision to use a factor analysis model for analysis: an anti-image correlation matrix; Bartlett's test of sphericity; and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. A KMO statistic of at least .60, a value characterized as mediocre by Kaiser (1974), was required to proceed with the factor analysis. Had a KMO statistic of less than .60 resulted, individual sampling adequacy measures would have been obtained for each independent variable and those with small values would have been eliminated from the factor analysis.

When it appeared that the factor model was appropriate, the resulting correlation matrix of scholarship attributes was submitted to factor analysis to determine the underlying dimensions or factors. Estimates of the initial factors were determined using the principal components method of factor extraction. The identified factors were subjected to a scree test to assist in the determination of the significant factors to be used for further study. Also, the percent of variance accounted for by the significant factors was examined to determine how many factors were necessary to adequately and parsimoniously represent the data. To render a simpler factor structure and factors more readily interpretable, the factors were then rotated. Although orthogonal factors have many practical advantages and traditionally have been preferred, in the present instance, it was deemed reasonable that the factors comprising the underlying dimensions of faculty scholarship might be intercorrelated. Oblique rotation has sometimes simplified factor patterns and, therefore, was considered for use in the current study to refine the determination of the significant dimensions of faculty scholarship. The

twenty attributes of faculty scholarship with the highest factor loadings and loading uniquely on a single factor were identified as components of that factor. A minimum of four variables loading uniquely and significantly on a single factor were necessary to render the factor appropriate for further analyses. Tentative names were associated with each of the identified factors in accordance with the components and their factor loadings. The factors were then interpreted. Factor scores were derived for each participant in the study for each of the significant factors. The factor scores were calculated using unit weighting of the attributes identified as components of each factor.

Research Question #2: Can variance in the dimensions of faculty scholarship be explained through role theory?

The theoretical relationships between indicators of the socialization processes of faculty during their graduate education, individual factors, current-institutional factors and the identified dimensions of faculty scholarship were explored separately. The factor scores developed for each faculty member for each significant dimension of faculty scholarship served as dependent measures. The independent variables were those related to the graduate school socialization processes of faculty, individual factors, and current-institutional factors. Each of these sets of independent variables are described below.

Graduate socialization factors included highest degree earned, Carnegie classification of institution from which the faculty members' highest degree was conferred, presence and perceptions of mentors, full-time or part-time primary graduate school attendance, major discipline of highest degree

earned, and perceived graduate school scholarly press and performance variables.

Individual factor variables included the ascriptive factors, age, sex, and ethnicity; career age; years of service in higher education and at UNCG; perceived individual scholarly performance; perception of influence of various reference groups; measures of status within the university; instructional functions performed; presence of a twelve-month academic appointment with the University; and professional organization and consulting activities.

The current-institutional factor variables included perceived institutional and departmental influence, performance, reward, and support for scholarship; size of department; instructional mission of the department, and proportion of faculty with terminal degrees.

Inferential statistics were used for a majority of the analyses. Oneway analysis of variance was employed when the number of levels of the independent variable exceeded two and the assumption of homogeneity of variance was upheld. Bartlett's test of homogeneity of variance was used to test the null hypothesis of equal variance. If the null hypothesis was rejected, the distributions of the variables were reviewed. If the number of observations within each category was close to equal, the results of the Oneway ANOVA were considered valid. If the number of observations across cells was disparate, categories were combined to form more homogeneous groups, and Bartlett's test was again calculated. When the number of levels of the independent variables was two, t-tests were employed to test for significant differences in the means. Homogeneity of variance was

tested prior to calculation of the t-test to determine the appropriateness of pooling or using separate variance estimates for the two groups. These analyses allowed examination of the relative importance of the socialization, individual, and current-institutional variables.

Given the large number of survey items in the questionnaire and the additional information contained in the separate data set, the potential set of independent variables was quite large. A large set of independent variables, treated individually, would necessitate a large number of significance tests and contribute to an unacceptable family error rate. Strategies were identified to address this problem.

To reduce the number of significance tests, survey items were pooled to form more reliable composite measures of variables of interest. For example, the number of offices faculty members currently hold in professional or discipline-focused organizations at the local, state, regional, national, and international levels, was summed to form a more comprehensive measure of the extent to which faculty engage in such activities. The number of agencies or parties to whom faculty provided paid professional service or consultation was also summed to form an aggregate assessment of such activities. The same types of aggregate measures were formed for unpaid professional service or consultation; dissertation committee involvement; thesis committee involvement; perceptions of mentor scholarliness; perceptions of departmental scholarliness during academic preparation and currently; and perceptions of institutional scholarliness during academic preparation and currently.

To further counteract the effects of potential Type I errors resulting from large numbers of significance tests, the total number of survey respondents was split into two equal sized samples, stratified by academic department and rank. All significance tests were performed separately for each random half using a Type I error rate of .05. Only tests which resulted in p values less than .05 and were replicated across both samples were considered to be reliable and significant.

Research Question #3: What are the modal role conceptions of faculty scholarship?

Two independent cluster analyses were conducted using the two previously determined replicate groups of faculty. The SPSSX CLUSTER procedure was used to assign faculty respondents to different cluster groups on the basis of shared similarity of factor scores on the identified dimensions of faculty scholarship. Euclidian distances were calculated as the basis of measurement, and the criterion for the formation of cluster was the average linkage between groups method. Squared multiple correlation coefficients (R^2) for successive cluster group solutions were reviewed and plotted to assist in the determination of the number of significant, or true, clusters.

The identified clusters of faculty were then used as grouping variables, and the adult socialization, individual characteristics, and current-situational factors served as independent variable sets. A series of multiple discriminant analyses were conducted to identify the variables within each variable set that best distinguished among the clusters. Stepwise analysis based on minimizing the overall Wilks' lamda method was specified as the method for selection of independent variables for inclusion into the discriminant

analysis. The order of entry or removal of variables was determined on the basis of the partial F values of each variable.

As with the procedures for Research Question 2, the discriminant analyses were conducted independently with the two replicate groups. If stable and reliable clusters exist in the general population of UNCG faculty, it should be possible to identify some of them from the sample of respondents. However, since regression techniques often take advantage of random variability in the data, the replicate groups were again employed to establish a rigorous standard for the determination of reliable and significant findings. Only identified clusters sharing similar patterns of factor scores and capable of discrimination with the same independent variables across replicate groups would be considered as reliable and significant. These procedures were intended to clarify the differences among the cluster groups and identify modal role conceptions of faculty scholarship.

CHAPTER IV

RESULTS

This chapter consists of five sections that describe the results from the five major phases of the study. The first section reviews the results from the pilot study for Stage-One data collection, in which methodology was tested and two response methods and several reference groups were employed. The second section describes the results from Stage-One main-study data collection, in which an extended list of attributes and components of faculty scholarship were generated. The third section describes results of a distillation of the components of faculty scholarship and validation of the attribute reduction process. The fourth section of the chapter reviews the results of the pilot study for Stage-Two data collection. The final section of the chapter reports results of analyses pertinent to the research questions addressed by the study, using data generated in Stage-Two.

Results of the Pilot Study for Stage-One Data Collection

This section of the chapter is divided into three subsections describing: (1) assessment of the feasibility of having faculty members define components of scholarship, (2) comparison of two survey response methods, and (3) comparison of three reference groups for production of components of scholarship.

Feasibility of Procedures

Assessment of the feasibility of pilot-study procedures was conducted using quantitative and qualitative methods. Quantitative procedures included computation of: (1) participation rates, (2) the total number of

attributes of faculty scholarship generated in the pilot study, and (3) the total number of components of faculty scholarship that were uniquely generated by any one subject in the pilot study. Qualitative procedures were used to determine: (1) participants' reported interest in the study, (2) participants' reported motivation to complete the tasks, (3) participants' reports of processes followed in completing the tasks, and (4) participants' assessment of the quality of the information they provided.

The 20 faculty members randomly selected for the pilot study demonstrated high levels of participation and persistence throughout data collection. One of the 20 sampled subjects declined participation at the initial interview. This individual, an assistant professor, indicated that though the study seemed intriguing, tenure pressures would not allow participation. This faculty member was replaced with another randomly selected member from the same academic unit holding the same academic rank. At this stage of data collection, 20 individuals, or 95.0%, had agreed to participate.

Three other faculty members later declined participation in the study. Two of the individuals withdrawing from the study indicated time constraints rendered participation infeasible. These subjects were replaced with randomly selected faculty from the same academic unit with same rank. A third faculty member was unable to participate due to illness. This faculty member could not be replaced due to the late stage of the pilot study. Therefore, a total of 19, or 82.6%, of the 23 faculty members sampled participated in the study. This participation rate suggested subsequent data collection plans could be successful.

The faculty members who withdrew from the study did not display systematic similarities by academic rank, academic unit, or gender. The academic ranks of withdrawing subjects were as follows: one full professor, one associate professor, and two assistant professors. Three academic units were represented by withdrawing faculty, and three males and and one female withdrew. The first faculty member to withdraw from the study was never provided a survey instrument; however, all three of the subsequent withdrawals resulted from faculty who had been randomly assigned and provided the narrative form of response method. Given the small sample size and the relative ease with which subjects were replaced with the narrative response method assigned, withdrawal due to assignment of the narrative response method was not investigated further.

One of the replacement participants agreed to participate in the study, but informed the researcher that a scheduled international trip would delay total data collection. The participant submitted data to the researcher, but the responses were not mutually reviewed and the final interview was not conducted prior to analysis of the pilot study data. Therefore, a total of 18 responses were used in the pilot study results and for the purposes of decision making for Stage-One data collection.

The number of components of scholarship generated by Stage-One pilot study subjects exceeded expectations. The total number of attributes and components of faculty scholarship proposed by pilot study subjects was 308. These results indicated that the methodology proposed for faculty generation of the attributes of scholarship would be effective.

The production of what were termed unique attributes of scholarship provided an indicator of the variation in conception of scholarship as described by participants. Unique attributes of faculty scholarship were defined as components uniquely generated by only one subject in the study. A total of 159 unique attributes of faculty scholarship resulted from the pilot study i.e., 51.3% of the 308 attributes of faculty scholarship were proposed by a single participant. This finding reflects the heterogeneity in the perception of the concept of faculty scholarship. The reciprocal observation that 48.7% of the attributes of faculty scholarship generated by a random sample of 18 faculty were independently generated by at least two of the participants indicates some degree of agreement regarding the concept. The pilot study results indicated high levels of both faculty cooperation and production of components of faculty scholarship.

At the final interview with pilot study participants, all subjects were asked to report their level of interest in the study. Table 1 presents the frequencies and percentages corresponding to responses to this question.

Table 1

Pilot Study Participant Interest in the Study

Response	Frequency	Percent
Low	1	5.6%
Medium	3	16.7%
High	14	77.8%

Note: Percentages do not sum to 100% due to rounding.

Responses to the interest question provided evidence that participants found the study quite interesting. These data are corroborated by the experiences of the researcher during many hours of contact with participants. The researcher consistently found faculty members extremely generous in the amount of time made available from very busy schedules to discuss and review the results of their substantial labors. Most faculty members reported spending about 2-3 hours completing the tasks assigned. A number of participants expressed pleasure in participating in the study and described the tasks as "enjoyable" and "provocative."

Faculty participants were not as enthusiastic in their response to the question regarding level of motivation to complete the tasks. Table 2 provides the frequencies and percentages corresponding to faculty members' responses to this question.

Table 2

Pilot Study Participant Motivation to Complete Tasks

Response	Frequency	Percent
Low	3	16.7%
Medium	5	27.8%
High	10	55.6%

Note: Percentages do not sum to 100 due to rounding.

These results suggested fairly high levels of reported motivation by participants to complete the study. These results are supported by comments made by faculty members during the pilot study. A great many faculty members verbally expressed strong commitment to participate in the study.

On the other hand, while high levels of interest in the study topic were frequently reported, a number of faculty indicated that the time required to complete the tasks was a difficulty. Even so, over 83% of the pilot study sample reported at least a medium level of motivation to complete the tasks, and all individuals did complete the tasks.

The most important indication of the adequacy of Stage-One data collection procedures is an assessment of the quality of the attributes generated by the procedures. Two means of assessing the quality of the attributes proposed in the pilot study were identified: (1) faculty members' reports of the process followed to complete the tasks, and (2) faculty members' reports of the quality of the information they provided. In the final interview, faculty were asked to reflect upon and describe the process they followed to complete the task. In this way, the uniformity or disparity of perception of the tasks assigned could be determined. Interpretive review of the comments made by the pilot study sample revealed three approaches to the completion of the tasks. The most frequently mentioned process, used by ten individuals, was one in which the participants identified several individuals they considered scholarly, followed by descriptions of the individuals and their scholarly characteristics and activities. These descriptors tended to be quite precise, idiosyncratic, and individualistic. The scholar nominees were most often individuals the respondent knew personally or had immediate knowledge of. A second process, employed by five participants, involved a determination of what a scholar is, followed by the identification of individuals who exemplify those qualities. Attributes generated using this process tended to be more global or universal in nature.

The third process identified, employed by three respondents, involved a conscious attempt to identify diverse examples of what the concept of faculty scholarship might include and to then describe individuals who exemplified each of these. The respondents using this process tended to select scholars either from very diverse campus settings or to select individuals who exemplified what the respondent considered to be an academic "type." For example, one respondent selected four faculty nominees: the model researcher, the master teacher, the provider of service to external constituents, and the provider of service to the academic program, department, and institution.

While the processes followed by participants seemed to vary markedly, all subjects addressed essentially the same task. The variety in approach broadened the concept of scholarship and thus enriched the quality, as well as the number, of attributes of faculty scholarship generated.

An additional means by which the quality of the components of faculty scholarship was assessed involved asking participants to report whether they felt the information they had provided conveyed the essence of their conception of faculty scholarship. Table 3 provides the frequencies and percentages associated with participants' responses to this question.

Table 3

Did Information Provided Convey the Essence of
The Definition of Faculty Scholarship?

Response	Frequency	Percent
no	0	0.0%
I don't know	1	5.6%
yes	17	94.4%

Faculty responses strongly endorsed the value of the information collected; 94.4% indicated that the information they provided conveyed the essence of their definition of faculty scholarship. This confirmation of the validity of the data collected is supported by numerous comments made by faculty during the interviews. For example, one participant remarked, "Yes. The characteristics listed form a conglomerate; it's not a single person. The aggregate forms the ideal." Another participant responded, "Yes, I hope so. That's why I came up with those choices." Another faculty member offered the following, "Yes, I think so. Because I've included diverse examples...that comes from addressing the tripartate." No participant indicated that the information provided did not convey the essence of their definition of faculty scholarship. However, one faculty member did express uncertainty, "The question to me is, 'Can you define faculty scholarship?' Because on a university campus, there are so many endeavors that can be considered scholarly."

Comparison of the Two Survey Response Methods

The pilot study employed two response methods of providing names and descriptions of up to four scholars for each of the three reference groups: local UNCG scholars, current external scholars, and scholars from the past. The list form, Form A, and the narrative method, Form B, were randomly assigned to participants. The listings of attributes of scholarship, derived from either the Form A listing or the Form B narrative, were reviewed, edited, and validated by each respondent during the final interview session. Less than five percent of the entries were altered by respondents in the validation sessions.

The responses of pilot study participants using the two methods were compared using the following indicators: (1) average total number of attributes of faculty scholarship proposed, (2) average number of unique attributes of faculty scholarship proposed, (3) average total number of days required to complete data collection, (4) average number of scholars nominated for each reference group, (5) participants' reported level of interest in the study, (6) participants' reported level of motivation to complete the tasks, (7) participants' reported perceived difficulty of the tasks, (8) participants' report of problems encountered during task completion, (9) participants' proposal of suggestions for improving the procedures, (10) participants' responses regarding whether the information provided conveyed the essence of their definition of faculty scholarship, and (11) participants' report of response method the respondent would have selected if a choice had been provided. Given the small sample sizes, statistical tests of differences were considered of limited utility. Crosstabulations were prepared, but the presence of cells with very small expected frequencies rendered chi square statistics inappropriate. When appropriate, t-tests were calculated to compare the means of the two groups. Table 4 compares the first four criteria: average number of attributes of scholarship generated, average number of unique attributes proposed, average days required to complete data collection, and average number of scholars nominated by respondents using the two response methods.

Table 4

Attributes Generated, Days Required, and Number of Scholars Nominated by Response Method

Variable	List	Narrative
Total Attributes	70.3	65.1
Unique Attributes	8.8	8.6
Days Required*	11.6	18.0
Number of Scholars	9.1	8.0

The only practical or significant difference between the two response methods involved the amount of time required to complete data collection ($t=2.70$, $df=16$, $p=.016$). Because the narrative method required that each description of a scholar be transformed to a list format and each listing validated by each respondent, this significant difference was expected. Results for the two response methods did not differ significantly in terms of the average number of total attributes generated, average total number of unique attributes proposed, or average total number of scholars nominated.

The more important assessment for comparison of the two response methods was whether or not the data generated using them was substantially different. Almost all respondents reported very high levels of interest in the study (see Table 1), and virtually no variance was evidenced in participant reports regarding whether the information they provided captured the essence of their definition of faculty scholarship (see Table 3). There was some evidence from interview data that the narrative method may have been considered more difficult; 50% of the participants assigned the narrative method described the task as "difficult" or "very difficult" compared to 30% of the list method participants. Interview data also suggested that motivation to

complete the tasks may not have been as high for respondents assigned the narrative method as for those assigned the list method; 25% of the narrative method participants described their motivation to complete the tasks as low, while 10% of the list method participants indicated low motivation. However, the resulting number of scholars nominated and number of attributes of scholarship generated was not substantially different for the two groups.

During the final interview, participants received a description of the two response methods and were asked which of the two methods they would have selected if they had been given a choice. One faculty member indicated that either response method would have worked. The remaining 17 identified one of the two methods as preferable. Table 5 provides a crosstabulation of respondents' reported response method preferences by method assigned.

Table 5

Respondents' Method Preference, by Method Assigned

		Method Preferred:	
		List	Narrative
Method Assigned:	List	7	3
	Narrative	1	6

Faculty members evidenced a tendency to prefer the response method assigned. This may have been due to their successful completion of tasks. However, the researcher offered participants great flexibility in the manner in which tasks were completed. A number of faculty took advantage of this offer

and modified the response method format. For example, one participant, assigned the list method, used a computer to report and describe scholar nominees. This subject consequently wrote a narrative on each nominated scholar. A few faculty members, assigned the narrative response method, chose to describe scholars with a mixture of sentences, short phrases, and single words. Thus, most respondents reported the method randomly assigned as effective.

Results of analysis of interview data do not support the selection of a single response method. Respondents' comments suggest that response method preference may be related to individual cognitive style: "Narrative. I'm a writer, not a lister.", "List. I always make a list before I write.", and "Narrative. That's the way I think; I think in complete sentences."

The results of data analysis did not provide substantial evidence of the efficacy of one method over the other. If time available for data collection was an important factor, results suggest the list method would be more efficient; however, many of the pilot study respondents reported unequivocal opinions concerning preference for a particular response method.

Comparison of the Three Reference Groups

Three reference groups of potential scholar nominees, i.e., local scholars, external scholars, and scholars from the past, were tested in the pilot study to determine and compare effectiveness in stimulating respondent proposal of attributes of faculty scholarship. The mean and total number of nominated scholars for each reference group was compared for the two response methods. Table 6 presents the results of these comparisons.

Table 6

Mean and Total Number of Scholars Nominated by Reference Group and Response Method Assigned

Reference Group	Response Method: List		Narrative			
	Mean	n	Mean	n	t	p
Local	3.1	31	3.6	29	1.18	.26
External	3.2	32	2.0	16	2.74*	.00
Past	2.8	28	2.4	19	.71	.49

Significantly fewer external scholars were nominated by respondents assigned the narrative method. However, additional t-test comparisons of the competing response methods revealed no significant differences for the average number of attributes or the average number of unique attributes generated for each of the three reference groups.

Additional comparisons of the reference groups were conducted after combining the responses of the list and narrative methods. The mean and total number of attributes proposed for each reference group is displayed in Table 7.

Table 7

Mean and Total Number of Attributes Proposed for Each Reference Group

Reference Group	Mean	Total
Local	30.6	550
External	19.0	342
Past	18.4	332

These data suggest that faculty members generated more attributes of scholarship when describing local scholars than when describing external or past scholars. This finding might be a result of the sequence of presentation

of the scholar reference groups within the data collection instrument, since local scholar nominees and descriptions were requested first. Perhaps local faculty members may have more knowledge concerning the activities and attributes of local scholars than scholars from other reference groups. The difference might also be explained by higher interest in local scholars by pilot study respondents than with scholars from the other reference groups.

Table 8 provides the frequencies and percentages associated with participants' reported interest in the three reference groups of scholar nominees.

Table 8

Participants' Reported Interest in Reference Groups

Reference Groups	Frequency	Percent
All Groups Interesting	8	44.4
Local Most Interesting	6	33.3
External Most Interesting	1	5.6
Past Most Interesting	3	16.7

These data suggested that a substantial percentage of the pilot study participants, 44.4%, found the three reference groups equally interesting. Of those stating a preference, the local scholars were of more interest than the other two reference groups. Faculty members' comments during the interviews underscore the importance of the local scholar reference group to the study. A few respondents indicated that they have limited knowledge of the multiple roles of faculty scholars on other campuses. One participant remarked, "I found the externals the least interesting, because you're limited to their public face. The same is partially true of past scholars, though you

have the power of their influence over time." Most faculty participants indicated that having more than one reference group was a helpful division. Examples of participant comments support this conclusion, "I came up with more demonstrations of variety than if I'd been limited to a single group." and, "There's a disparity among the groups; it accesses different information across all three groups." This information supported the continuation of the three reference groups in the design for Stage-One data collection.

Respondents' Reported Problems and Suggestions

During the final interview, pilot-study participants were asked if they encountered problems while attempting to complete the tasks. Seven respondents, 38.9%, reported experiencing problems during participation in the study. Four problem areas were identified: (1) finding the time to respond adequately, (2) coming up with four scholars in each reference group, (3) identifying scholars in a particular reference group, and (4) fluently verbalizing the attributes of scholarship.

Respondents were asked to make suggestions for the improvement of the procedures used in the pilot study. Half of the sample, 9 respondents, offered suggestions in the following five categories: a change from the vertical format of the list response method to a horizontal format (3 respondents); eliminate the list response method (1 respondent); minor wording changes (2 respondents); adopt a multiple-choice format (1 respondent); and shorten and simplify the tasks to improve response rates (2 respondents).

Based on these suggestions, simplification of the tasks assigned was considered. While shortening and simplifying the tasks assigned might help the response rate, the participation rate of respondents was not a major

concern. Based on the data analyses, the three reference groups of potential scholar nominees were important for Stage-One data collection. The tasks would be less arduous if the number of scholars requested in each reference group was reduced. However, knowledge of the costs involved in reducing the number of scholars nominated was necessary.

An analysis was designed to determine how much information would be lost through the reduction of the number of scholar nominees requested. At the completion of the pilot study, the total number of attributes proposed by all respondents was known. The desired information was the proportion of the total number of new proposed attributes that resulted from the addition of each nominated scholar. To obtain this information, all attributes proposed from descriptions of only the first scholar nominee from all three reference groups were identified and counted. The sum of these attributes represented the total number of faculty scholarship attributes proposed from descriptions of the first scholar across the three reference groups. From this sum and the total number of attributes proposed from the pilot study, the proportion of attributes generated from all descriptions of one scholar was calculated. Next, all **new** attributes generated from descriptions of the second scholar across reference groups were identified and counted. Again, a proportion of the total number of proposed attributes of faculty scholarship was calculated. This statistic represented the proportion of the new information gained from asking respondents to describe two scholars within each reference group instead of one scholar in each reference group. This procedure was followed for the third and fourth scholar nominees across reference groups. Totals were converted to proportions, and these

proportions were indicative of the "value-added" in new attributes of faculty scholarship generated with the addition of the number of scholar nominees requested. Table 9 presents the results of these procedures.

Table 9

Proportion of Attributes Generated, by
Number of Scholar Nominees Requested

Scholar Group	n	Cumulative n	Proportion	Cumulative Proportion
Scholar One	294	294	.636	.636
Scholar Two	105	399	.227	.863
Scholar Three	51	450	.110	.973
Scholar Four	12	462	.026	.999

Note: The proportions do not sum to 1.0 due to rounding.

This information provided an indicator of the "cost" in new information of reducing the number of scholar nominees requested of respondents during Stage-One pilot study data collection. Based on this analysis, in combination with a favorable response rate, it was decided to request nominations and descriptions of only three scholars in each reference group. The "cost" of losing an estimated .026 of the total number of attributes by asking for three rather than four scholars seemed a reasonable trade-off to make the task somewhat easier for Stage-One data collection participants. However, by reducing the task to the nomination and description of two scholars, the results of the above analysis estimated the proportional loss in information at .136. This seemed too high a cost in the specification of the content domain of faculty scholarship.

Given these considerations and the comments of the respondents, a number of design decisions for the survey instrument for main-stage data collection were made. The task was shortened and simplified for respondents. Participants were asked to nominate and describe only three scholars within each of the reference groups. All three reference groups were retained for Stage-One data collection. A single, more flexible, instrument was employed for Stage-One data collection (see Appendix C). A horizontal format was included that allowed the identification and description of a single scholar on each page. This format allowed respondents to provide information about scholars in any manner they wished. If participants chose to use full sentences and paragraphs, the procedures for data collection paralleled those followed with the narrative response method in the pilot study. If the data provided was in a listing format of short phrases or sentences, the data collection procedures followed paralled those used with list response method data in the pilot study.

Results of Stage-One Data Collection

The Stage-One data collection analyses consisted of two types of analyses, quantitative and qualitative. The quantitative aspects of the analyses included (1) assessment of participation rates, (2) calculation of the total number of attributes of scholarship generated, and (3) determination of the total number of attributes of faculty scholarship uniquely generated by only one subject. The qualitative components of the analyses included (1) participant reported interest in the study, (2) participant reported difficulty of the tasks, (3) respondent report of the process they followed in completing the tasks, and (4) respondent perception of the quality of the information they

provided. The results of these analyses are presented in two subsections of this chapter.

Quantitative Analyses Results

Faculty Participation

An indicator of primary importance of the effectiveness of data collection was the level of faculty participation in the generation of attributes of faculty scholarship. All but three of the 52 sampled subjects agreed to participate at the initial interview. These three individuals, two assistant professors and a lecturer, indicated time pressures would not allow their participation. The two assistant professors specifically mentioned the tenure process as their reason for nonparticipation. Faculty opting not to participate were replaced. One full professor was designated a nonparticipant because the survey form was returned incomplete; this individual was also replaced. All of the sampled replacement faculty agreed to participate. Two additional faculty members later withdrew from the study. One faculty member, an assistant professor, was unable to participate due to a serious illness diagnosed toward the end of the pilot study period. The other faculty member, a lecturer, did not complete the tasks. These two faculty members could not be replaced due to the late stage of data collection. Thus, 31 of the 35 faculty members contacted, or 88.6% participated in the main Stage-One data collection. When combined with the participants of the pilot study, a total of 50 faculty of the 58 contacted, or 86.2%, agreed to participate. Table 10 displays the breakdown of participation frequencies and percentages for the pilot study, main Stage-One and total data collection.

Table 10
Faculty Participation Rates

Stage	Number Contacted	Number of Participants	Percent Participants	Early Decline	Late Withdraw	Number Nonresponse
Pilot	23	19	82.6%	3	1	0
Main	35	31	88.6%	2	1	1
Total	58	50	86.2%	5	2	1

These results indicated strong, positive response by faculty to the research project. An increase in the response rate was evidenced from the pilot study to the main-stage data collection effort of Stage-One. This increase may be attributed to the positive impact of modifications made in the design of the survey instrument resulting from analysis of pilot study data. In summary, the high level of faculty participation throughout Stage-One of data collection supported confidence in the results.

Total Number of Attributes Proposed

The second indicator of the quantitative effectiveness of the data collection effort was the total number of attributes generated as a result of the data collection effort. At the conclusion of the pilot study, including those contributed by the pilot study participant who submitted data late, a total of 321 attributes of faculty scholarship had been proposed by the 19 participants. When all Stage-One data collection was completed, an additional 141 components of faculty scholarship had been proposed by the 31 main-stage participants for a total of 462 attributes. The complete listing of attributes of faculty scholarship proposed throughout all Stage-One data collection is presented in Appendix I. The methodology for generation of attributes of

faculty scholarship was deemed successful. The total number of attributes generated in Stage-One exceeded expectations.

Total Number of Unique Attributes Proposed

The number of attributes proposed by only one respondent, termed unique attributes, was identified as the third quantitative indicator of the success of the data collection effort. At the completion of the Stage-One pilot study, a total of 159 unique attributes had been proposed by the 18 faculty participants. This represented 51.3% of the 308 attributes that had been generated. At the end of data collection for all of Stage-One, 462 different attributes had been proposed by the 50 faculty participants. The number of unique attributes was reduced to 130, or 28.1% of the total number of attributes of faculty scholarship. The total number of unique attributes of scholarship was the result of two occurances: (1) previously proposed unique attributes were independently specified by main-stage respondents, and (2) new unique attributes were generated by main-stage respondents. The overall decrease in both the number and percentage of unique attributes provided confidence that the content domain of faculty scholarship was being well specified.

Qualitative Analyses Results

The qualitative indicators of the success of Stage-One data collection procedures consisted of participants' reports of: (1) interest in the study, (2) difficulty of the tasks, (3) the process followed to complete the task, and (4) the quality of the information they had provided. The results of each of these assessments is described in this subsection of the chapter.

Participants' Level of Interest in the Study

During the final interview, each participant was asked to describe his/her level of interest in the study. Table 11 presents the frequencies and percentages associated with faculty responses regarding their interest in the study.

Table 11

Participants' Reported Interest in the Study

Interest	Frequency	Percent
Low	4	8.0
Medium	13	26.0
High	33	66.0
Total	50	100.0

These data indicate that almost two thirds of the respondents described their level of interest in the study as high. An additional 26% of respondents reported a medium level of interest. Only 8% of the participants reported low levels of interest in the study. These levels of reported interest were not quite as high as those reported by the pilot study sample (refer to Table 1).

Perceived Difficulty of Tasks

Participants were asked their perception of the level of difficulty of the assigned tasks. Table 12 presents the frequencies and percentages associated with faculty responses to this question.Responses to this question clustered in the middle of the scale. Many of the participants expressed hesitance in arriving at a response since some aspects of the task were perceived as more difficult than others. A number of participants noted that actually beginning the task was difficult, but once started, it was not difficult. A few faculty

indicated that any task requiring considerable thought cannot, by definition, be easy.

Table 12

Participants' Report of Difficulty of Assigned Tasks

Difficulty	Frequency	Percent
Very Difficult	6	12.2
Difficult	18	36.7
Easy	21	42.9
Very Easy	4	8.2
Total	50	100.0

Processes Followed to Complete the Tasks

Faculty were asked during the final interview to reflect upon and describe the process they went through as they completed the tasks. In this way, the uniformity or disparity of perception of the tasks assigned could be determined. Analysis of the comments made by the faculty during the final interview revealed the same three approaches to the completion of the tasks reported by pilot study participants. The responses of main-stage participants are, therefore, pooled with those of the pilot study for these results.

The most frequently reported process, used by 32 individuals in the total sample, was one in which the participants identified several individuals they considered to be scholarly, followed by descriptions of the individuals and their scholarly characteristics and activities. These descriptors tended to be quite precise, idiosyncratic, and individualistic. Frequently, a pattern of attributes emerged that seemed to be affirming to the respondent; many had not previously considered their conception of scholarship. The scholar

nominees were often individuals the respondent personally knew or had immediate knowledge of.

A second process, employed by 14 of the total participants, involved a determination of what a scholar is, followed by the indentification of individuals who exemplified those qualities. The attributes generated using this process tended to be global or universal in nature.

The third process employed by four respondents, involved an attempt to nominate individuals exemplifying diverse examples of faculty scholars. Respondents using this method selected scholars from a variety of academic departments and institutional settings. The scholars nominated were intentionally selected because of their demonstrated excellence within one of the traditionally accepted roles of the academic professional (i.e., teaching, research, and service), and what the respondent described as an academic "type."

Perceived Quality of the Information Provided

An additional means by which the quality of the components of faculty scholarship generated was assessed involved asking all participants whether they felt the information they had provided conveyed the essence of their conception of faculty scholarship. Table 13 provides the frequencies and percentages associated with faculty responses to this question. Faculty responses strongly endorsed the value of the information collected; 90% of the participants reported the information they provided conveyed the essence of their definition of faculty scholarship. The strong confirmation of the legitimacy of the data collected was supported by numerous comments made by faculty during the interviews. For example, one participant remarked,

Table 13

Did Information Provided Convey Essence
of The Definition of Faculty Scholarship?

Response	Frequency	Percent
No	4	8.0
I don't know	1	2.0
Yes	45	90.0

"Yes. You allowed me to define what it is. I set the terms. It would take what you are doing to define it; the concept is so vast that many forms will emerge...it's important to recognize the different forms." This is precisely the issue the study was designed to address.

Four faculty members indicated the information provided did not convey the essence of their definition of faculty scholarship. One participant suggested the information could not convey the essence of their definition because they had not synthesized the information. The individual added that information would inevitably be lost through the transformation of narrative descriptions to phrases. Another professor told a story that illustrated his reservations about defining complex constructs, "It's kind of like the story of two umpires and a fellow asking them how they could call pitches balls or strikes. 'How do you know?' Well, one of the umpires described the strike zone and said that if the ball entered that zone, it was a strike, and if it didn't, the pitch would be called a ball. The other umpire simply said, 'It isn't anything until I call it.'"

Results of the Distillation and Validation of Attributes of Faculty Scholarship

This section of the chapter describes results of: (1) distillation of the components of faculty scholarship and (2) validation of the attribute

reduction process. These two procedures provided information to guide development of the survey instrument used in Stage-Two data collection. The results of both procedures are described in separate subsections.

Results of the Distillation of the Attributes of Faculty Scholarship

Stage-One data collection procedures produced a total of 462 attributes of faculty scholarship. The decision rules described in Chapter Three were applied to govern the attribute reduction process. The total set of 462 attributes was reviewed to: (1) eliminate redundant attributes, (2) combine and reduce attributes that could be subsumed by other statements, and (3) eliminate attributes descriptive of the idiosyncratic style or personality of individuals, rather than scholarship.

The analysis of the total set of attributes resulted in three categories of attributes and attribute groups: (1) attribute groups formed in accordance with the attribute reduction decision rules, (2) attributes under consideration for deletion, and (3) attributes of scholarship not amenable to either combination or deletion. A total of 105 attribute groups were formed. Each attribute group was assigned a tentative label. A total of 49 attributes were recommended for deletion. A total of 131 attributes were considered unique, or not amenable to combination or reduction.

The three categories of attributes described above were presented to the panel of judges; the three categories comprised the three sections of the Validation of Attribute Reduction Instrument. Each judge was asked to independently decide whether the decision rules governing the attribute reduction process were appropriately applied. The results of deliberations of the panel judges are presented in the next subsection of the chapter.

Results of the Validation of Attribute Reduction Process

The first section of the validation instrument required judges to review the attribute groupings and the tentative labels assigned to each group. The second section of the instrument was composed of attributes under consideration for deletion. Judges were asked to determine whether these attributes should be retained or deleted. The third section of the instrument presented a listing of attributes considered unique, or not amenable to combination or deletion. Participants in the validation of the attribute reduction procedure were not asked to make judgments regarding the last group of attributes; the listing of attributes was provided for information purposes only. Therefore, results are presented for only the first two sections of the instrument responses.

Results of Validation of Attribute Groupings and Tentative Labels

A total of 105 attribute groupings were reviewed independently by each of the panel judges. The agreement of at least four of the five panel members was necessary for a proposed attribute grouping to be validated. Of the 105 attribute groupings reviewed, a total of 101, or 96.2%, were validated by the panel. Four of the attribute groupings, or 3.8% were not validated. During the final interview with each of the panel members, the written rationale provided for disagreement with proposed attribute groupings was discussed. Review of judges' rationales and remarks guided decisions regarding the disposition of nonvalidated attributed groups. For example, if more than one member of the panel objected to the inclusion of an attribute within a proposed cluster, that attribute was deleted from the proposed cluster and appeared in the final questionnaire as a unique attribute. Such was the case

for two attributes appearing within nonvalidated attribute groups. Based upon the review of remarks and rationales for the remaining two nonvalidated attribute groups, one tentative label was modified in accordance with the reasoning of dissenting judges. The concern expressed by judges regarding the remaining nonvalidated attribute cluster was eliminated by the language employed with the proposed tentative label.

Of the 105 tentative labels reviewed by the judges, 99, or 94.3%, were validated. Six of the 105, or 5.7%, of the attribute group labels did not achieve validation. The comments and written rationales provided by panel judges were reviewed to determine disposition of the nonvalidated attribute group labels. One of the nonvalidated attribute labels belonged to an attribute group that had not achieved validation. The disapproval of the dissenting judges with both the grouping and its label was resolved by eliminating the grouping and presenting the two attributes comprising it separately as unique attributes in the final questionnaire. On the basis of the comments and written rationales provided by dissenting judges, four of the attribute labels were modified. The sixth group label that did not achieve validation was retained as written. All five judges concurred with the appropriateness of the attributes forming the group; however, the two dissenting judges shared no agreement regarding either their concerns about the tentative label or suggested changes to improve the label.

Results of Validation of Attributes under Consideration for Deletion

A total of 49 attributes were recommended for deletion in the second section of the Validation of Attributes Reduction Inventory. A total of 40 of

the 49, or 81.6%, were validated for deletion. The remaining nine attributes were retained in the final questionnaire.

As a result of the validation procedures, the composition and number of attributes included within the final survey instrument was determined. A total of 11 attributes were added to the survey instrument and five attribute labels were modified. A total ot 249 attributes of faculty scholarship were therefore included in the final survey instrument. All modifications to the final form of the questionnaire were made through analysis of the decisions of the panel of judges.

Results of the Pilot Study for Stage-Two Data Collection

The pilot study was conducted as a trial run of the proposed Stage-Two data collection procedures. The data collected in the pilot study were reviewed to improve the procedures, the survey instrument, and other materials used in Stage-Two data collection. The designed purposes of the pilot study were to: (1) assess respondent interest and willingness to participate in the study, and thus to estimate response rate for main-stage data collection, (2) determine the effectiveness of the cover letter, (3) assess the clarity of instructions for each section of the questionnaire, (4) estimate how long it would take a respondent to complete the questionnaire, and determine whether respondents completed the questionnaire in one session, (5) determine if respondents felt attributes of faculty scholarship were missing from the questionnaire, (6) review the data collected to determine the feasibility of the data coding plan, and (7) determine reasons and possible solutions for participant nonresponse. Each of these purposes will be addressed in subsections that follow. Two sources of data were reviewed to

achieve the purposes of the pilot study: (1) the responses of pilot study faculty members to the questionnaire, and (2) interview data collected from a subsample (n=8) of the pilot study sample. The results of analyses conducted on both data sources are reviewed in the subsections that follow.

Participation and Interest in the Study

Information concerning respondent willingness to participate was collected through calculation of the response rate of the pilot study sample. Information concerning participant interest in the study was derived from interviews with the pilot study subsample. At the completion of data collection, 19 of the 25 questionnaires, or 76%, had been returned. Four of the 19 returned questionnaires were blank, which lowered the number of total usable questionnaires to 15, or 60%. Of the pilot study subsample, a total of six of the eight questionnaires, or 80%, were returned, and 5 of the returned questionnaires, or 63%, were usable. During the interview conducted with the pilot study subsample, subjects were asked to describe their level of interest in the study of faculty scholarship. One faculty member indicated that the topic was of low interest, three indicated moderate interest, and four reported a high level of interest in the study. The reported interest levels of participants and nonparticipants in the pilot-study were compared. Table 14 presents the results of this comparison. The reported level of interest in the study of faculty scholarship appeared to be a factor in whether participants responded to the questionnaire. Indeed, the nonparticipant reporting a high level of interest in the study later submitted a completed questionnaire. The return of this late questionnaire took place after the interview, and since no

interview was planned for the Stage-Two data collection procedure, it was not

Table 14

Reported Interest in Study
by Participation

		Reported Interest in Study		
		Low	Medium	High
Response Category:	Participant	0	2	3
	Nonparticipant	1	1	1

included in the calculation of the response rate. However, the questionnaire responses were included in total Stage-Two data analysis.

Reported Effectiveness of the Cover Letter

During the interview, the pilot study subsample members were asked to indicate their general reaction(s) to the letter they had received requesting their participation. Six of the eight subsample members, or 75%, indicated their general reaction to the cover letter was positive. Comments made in reference to the letter reflected a favorable response to the letter. For example, "It was very professional." , "It was well done and clear." , and "It was well written and organized." One faculty member reported they did not pay any attention to it since they had no interest in the topic. Another faculty member indicated they had received another survey the previous day, and reported the following response to the cover letter, "Oh no, not another one."

Further questioning of the subsample revealed that at least six of the seven individuals that had read the cover letter, or 86%, reported that the

cover letter effectively: (1) stated the nature and purpose of the study, (2) indicated why the study was important, and (3) assured the confidentiality of respondents. Five of the pilot study subsample members reported uncertainty regarding method used for their selection for participation in the study. Four subsample members reported that the sponsorship of the study was unclear to them. As a result of this information, the language pertaining to participant selection and the sponsorship of the study was clarified in the cover letter designed for Stage-Two data collection.

Clarity of Instructions of Questionnaire

Participants who had completed the survey questionnaire were asked, during the interview, a series of parallel questions concerning each of the four main sections of the questionnaire. The questions requested participants to indicate: (1) whether there were any questions within the section that appeared unclear or ambiguous, (2) whether there were any questions within the section the participant was hesitant to answer or found difficult to answer, and (3) whether participants could think of additional information, not requested in that section of questionnaire, that might influence their judgments about faculty scholarship. Participant responses for each of the four sections of the questionnaire are reviewed in the subsections that follow.

Part A. Current Activities at UNCG

The five pilot study subsample members that had completed the survey instrument unanimously indicated that the first section of the survey was clear and unambiguous. All respondents indicated no hesitance in responding to any of the items included in Part A. Two respondents suggested additional information concerning their current activities at UNCG

that they thought might influence their judgments about faculty scholarship. One participant suggested that the experience of serving on faculty search committees influenced their judgments of faculty scholarship. Another participant suggested that having a twelve month appointment with the University might influence perceptions of the concept of scholarship. On the basis of this recommendation, data regarding twelve month appointments was collected for final data analysis.

The second section of the survey instrument, Part B. the Components and Attributes of Scholarship, appeared problematic for the subsample participants. Only one of the five participants reported that all items were clear and unambiguous. Three of the participants found the section frustrating due to the number of attributes that were not relevant to their field or discipline. When questioned about their responses to such items, two indicated that the instructions were clear and they had weighted such attributes as "Very Low," or "Of No Importance." The third respondent indicated that they recognized the importance of such attributes to other fields and had made a decision rule at the beginning of the survey to rate such items as "Very Low," or "Of No Importance." This response indicated that it was unclear to the participant that such a decision rule had been provided within the instructions for the survey. Another participant suggested that a number of items, such as "Committed to writing," have multiple meanings since there are many kinds of writing to be engaged in. Responses to the question regarding whether or not there were items that were difficult to respond to such that they were not confident of their response, largely paralleled those for the first question. Three of the respondents answered,

"No," to the question, but two of these individual qualified their responses. One added that some of the items were not relevant to their scholarship, and the other participant indicated that the section required very fine gradations and suggested that duplication existed within the section. Two respondents reported difficulty in responding to items within the section. One respondent underscored their previous response regarding the multiple meanings of a few attributes, and the other reported that while the items were excellent they found it difficult to attach numbers to some attributes of scholarship.

Part C., The Pursuit of Your Highest Degree, was considered clear and unambiguous by four of the five subsample respondents. One respondent suggested it was difficult to report the priorities assigned to scholarship by the department and institution from which they earned their highest degree since they had attended graduate school on a part-time commuter basis. None of the subsample respondents reported hesitance in responding to any items. Two respondents suggested that additional information concerning the pursuit of the highest degree might influence judgments of scholarship. One respondent suggested that the presence or absence of financial support, and the necessity of working during graduate school attendance might influence judgments of scholarship. The other respondent reiterated their previous comment concerning the potential influence of commuting to graduate school on the perception of scholarship.

All five subsample respondents reported that the final section of the survey questionnaire, Part D., Current Perceptions and Influences on Scholarship, was clear and unambiguous. There were no items respondents reported being hesitant to answer. When asked if they could think of

additional information that might influence current perceptions and influences on scholarship, three respondents made suggestions. One participant noted that the presence of commitment to academe as a lifetime goal would influence the conception of scholarship. The respondent suggested that faculty members lacking commitment to higher education, perhaps with plans to enter the private sector or a government agency, might embrace different orientations toward scholarship. Another participant suggested that within his/her department, subtle activities are engaged in that are indicative of what is considered scholarly. The respondent reported that while these activities are consistent with the training he/she had received in graduate school, this value system might not be present elsewhere. This subject indicated that the prevailing value system within the working environment is important and information concerning that value system influences one's judgment of scholarship. The third participant suggested that information regarding the currency of an individual's knowledge in their field and practice might influence judgments about scholarship. This respondent recognized that this information would be difficult to reliably collect and assess but emphasized that its influence on judgments of scholarship was obvious.

Estimation of Length of Time to Complete the Questionnaire

The pilot study instrument requested respondents to indicate the time they began working on the survey, the time they finished the survey, and to provide an estimate of the amount of time it took them to complete the questionnaire. The average reported time to complete the survey was 40 minutes. The range of time estimates reported was 55 minutes, with a

minimum reported time of 20 minutes and a maximum of 75 minutes. Of the 16 faculty members completing the questionnaire, only seven completed both the time began and time ending questions on the survey. Using the reported start and finish times, it was evident that five of these seven individuals completed the survey in a single session while two of the seven respondents required more than one session to complete the questionnaire. During the interview, pilot study subsample members were asked if they had completed the questionnaire in one session. Every pilot study subsample member that did complete and return the questionnaire, completed it in a single session.

Reported Adequacy of Specification of Content Domain

Pilot study subsample members were asked during the interview, "As you completed the survey, or as you reflect upon it now, can you think of any attributes of faculty scholarship that may not have been listed on the questionnaire?" Responses to this item were unanimous; no participant could suggest an attribute of scholarship that was not included on the questionnaire. Respondents indicated that the questionnaire was "thorough" and "comprehensive." One respondent indicated redundancy was evident in some of the attributes of scholarship.

Feasibility of Data Coding Plan

The pilot study data was reviewed to determine ways of improving its format and to assess the feasibility of a data coding plan. The proposed data coding plan included direct data entry from the questionnaires to the computer. Data entry screens had been developed to parallel the format of the survey questionnaire. The data entry plan was deemed workable after

review of the returned survey instruments, the data entry screens, and actual data entry. Review of the completed survey instruments revealed an item placed at the bottom of a page which was frequently left blank. The format of the survey was modified by placing the item within a box to focus attention on the item to facilitate its completion.

Reasons and Solutions for Participant Nonresponse

The three pilot study subsample members that had not completed the questionnaire prior to the interview were asked if they would tell the researcher why they did not participate. Three reasons were identified for nonparticipation: (1) lack of time (three nonparticipants); (2) lack of interest, (one nonparticipant); and (3) scheduled trips in combination with administrative duties, (one nonrespondent).

All pilot study subsample members were asked to suggest changes in the procedures and materials that might enhance participation. One participant reported that the follow-up postcard was not received, and this reminder might have stimulated an earlier return of the questionnaire. Two other pilot study subsample members recommended shortening the questionnaire to enhance participation. One participant recommended several changes: wording changes in the follow-up postcard; shortening of the instructions for Part B; and locating the sectional instructions immediately before each section to facilitate review. These suggestions were incorporated in the final questionnaire format and design.

Results of Analyses of the Research Questions using Stage-Two Data

The first portion of this subsection reports the response rate of faculty to the faculty scholarship questionnaire. The remainder of the chapter is

divided into three subsections corresponding to the three major research questions investigated: (1) How is faculty scholarship defined by faculty?, (2) Can variance in the dimensions of faculty scholarship be explained through role theory?, and (3) Can the modal role conceptions of faculty scholarship be identified?

Participation Rates

Four hundred ninety-five questionnaires were mailed to faculty comprising the population of full-time faculty assigned to academic units. One faculty member was eliminated from the population due to a change from full-time to part-time faculty status. An additional faculty member was withdrawn from the study due to death. A total of 324 questionnaires, or 65.7%, were returned to the researcher. The pilot study for Stage-Two data collection generated responses from 16 additional faculty, which were combined with the responses collected in Stage-Two. Thus, responses from a total of 340 questionnaires were included in the final data set used for data analysis. No significant response bias was present on the basis of sex, age, rank, career age, highest degree earned, HEGIS code of academic department, or whether individuals were administrators. However, the results of analyses indicated that individuals without tenure-track academic appointments were less likely to have completed and returned the survey than individuals either with tenured positions or holding tenure-track academic appointments. This finding is supported by a few letters and comments on surveys returned by faculty with lecturer academic appointments. One lecturer wrote that he/she felt the survey may have been sent in error. Since the topic of the survey was faculty scholarship, the

respondent assumed the researcher would not be interested in the views of a lecturer. In light of the lower response rate by individuals without tenure or tenure-track status, the results of the survey may be less generalizable to faculty with non-tenure track appointments than the general faculty population.

Research Question 1: How is Faculty Scholarship Defined by Faculty?

The weights faculty members assigned to the attributes of faculty scholarship were correlated and submitted to principal components analysis using pairwise deletion of missing data. Review of statistics regarding the correlation matrix of attributes of faculty scholarship revealed a number of interesting features.

When the entire matrix of 249 variables was subjected to principal components analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .22; the SPSSX computer program would not calculate Bartlett's test of sphericity for the matrix. This information suggested that the correlation matrix was not appropriate for the factor model proposed. Indeed, the SPSSX FACTOR program emitted warnings that the matrix was "ill-conditioned." Additional information revealed that the determinant of the matrix was calculated at a value of .0000, indicating that the correlation matrix was singular. Since all variables in the matrix were intended to describe components of faculty scholarship, the potential for linear dependence of one or more vectors of the matrix was high. The singularity of the matrix was indicative that the rank of the matrix was less than the number of variables, a good sign that parsimony could be achieved with a factor analysis solution.

Given the large number of variables and the singularity of the correlation matrix, the estimated KMO statistic was not a reliable estimate of the sampling adequacy of the entire correlation matrix. A subset of 50 variables was submitted to principal components analysis, and the KMO and Bartlett's statistics changed dramatically. The KMO measure of sampling adequacy was calculated at .91. Kaiser (1974) has termed correlation matrices with KMO statistic values in the .90's as "marvelous for factor analysis." Bartlett's test of sphericity had a test statistic of 9,573.38 with an associated significance of .00000; thus, the hypothesis that this matrix was an identity matrix was rejected. Another independent subset of 70 variables was submitted to principal components analysis and the results were almost identical. The KMO value for this subset of variables was equal to .91 and Bartlett's test of sphericity was equal to 12,912.2, again significant at .00000. Given that it is mathematically impossible to achieve a larger KMO value for a subset of variables than for the entire set (L. Bond, personal communication, June 6, 1989), the estimated value of KMO for the entire set of variables is at least .91; therefore, the principal components analysis model was deemed appropriate for the correlation matrix.

The magnitude of the eigenvalues resulting from the principal components analysis suggested that four large factors were present and that perhaps six, and possibly eight, meaningful factors might be extracted. Table 15 provides the eigenvalues and the percent of total variance accounted for by each of the first ten factors. To assure that no potentially meaningful factor was omitted from consideration, factor solutions with four, five, six, seven, and eight factors were investigated. All principal components solutions were

orthogonally rotated, using Varimax rotation. The eight-factor solution resulted in a single variable loading significantly on factors seven and eight. The seven-factor solution resulted in only one variable loading on the seventh factor. The six-factor solution resulted in five variables with significant loadings above .50 on the sixth factor; however, every variable with a significant loading on the sixth factor also shared significant variance

Table 15

Initial Statistics for the Top 15 Factors

Factor	Eigenvalue	Percent of Variance
1	52.5	21.3
2	26.2	10.6
3	14.7	5.9
4	9.7	3.9
5	5.3	2.2
6	4.7	1.9
7	4.3	1.7
8	3.9	1.6
9	3.2	1.3
10	3.2	1.3

with at least one previously extracted factor. The five-factor solution resulted in only three variables with unique factor coefficients with an absolute value of .40 or greater on the fifth factor. Thus, a four-factor solution was selected for final rotation and subsequent analyses. The four factors accounted for 41.7% of the total variation of the 249 variables submitted to principal components analysis. The tentative names and loadings on the four factors retained for study are presented in tables that follow. The 20 variables with the highest coefficients above an absolute value of .50 are presented in each table. All variables listed loaded principally on the factor for which they are reported; in other words, no variable listed within a table had a factor loading

with an absolute value above .30 on any other factor. The simple structure of the factor solution was evident from the final rotation, since very few variables loaded on more than one factor. Interpretations of each of the factors follow each table.

Table 16

Factor One: Pedagogy

Variable Description	Factor Loading
Exhibits Excellence in Teaching	.80
Is Committed to Teaching	.79
Student Find Classes Interesting	.78
Respects Students	.77
Students Find Classes Challenging	.77
Demonstrates Concern for Development of Others	.77
Is Active in Teaching	.77
Searches for Innovative Approaches to Teaching	.77
Prepares Valuable Class Materials	.76
Teaches Students Importance of Communication	.76
Is Generous with Time for Students	.74
Is Respected by Students	.74
Demonstrates Relevant, Unforced Presentation of Experiences into Teaching	.74
Inspires Others to More Fully Cooperate	.74
Inspires Students Academically	.73
Integrates Teaching With Scholarship	.73
Is Concerned about Educational Issues	.73
Works Carefully on Projects with Students	.72
Has Long-Lasting Positive Impact on Students	.72
Able to Activate Students' Memory and Imagination	.72

The first factor explained 21.3% of the total variation in the 249 variables submitted to the principal components analysis. The first factor has been tentatively named Pedagogy. The variables contributing to this factor incorporate not only the activities of teaching, but include orientations and values often associated with effective teaching, as well as manifest and latent outcomes of excellence in pedagogy.

Table 17

Factor Two: Publication and Professional Recognition

Variable Description	Factor Loading
Publishes Regularly	.76
Publishes in Refereed Journals	.74
Serves on Editorial Board for Journal	.73
Publishes in Quality Journals	.72
Edits Publication(s)	.72
Has Chapter(s) Published	.72
Serves as Editor of Professional or Disciplinary Journal	.72
Has Monograph(s) Published	.70
Is Considered a Leader in the Field or Discipline	.69
Work is Cited by Others	.69
Has Article(s) Published	.69
Contributes to or Influences Field Through Publications	.68
Has Review(s) Published	.68
Reputable Publication Sources Solicit Work	.66
Has Book(s) Published	.66
Review(s) of Work are Published	.66
Has Conference Proceedings Published	.65
Is Acknowledged as Pioneer in Field of Inquiry	.65
Co-edits Publication(s)	.65
Receives Grant Award	.64

Factor Two, tentatively named Publication and Professional Recognition, accounted for 10.6 % of the total variation of the set of variables. This factor included items that described a diverse array of publication modes, service toward the production of publications for others, and recognition for research and publication in the field or discipline.

Table 18

Factor Three: Intellectual Characteristics of Scholars

Variable Description	Factor Loading
Exhibits Intellectual Imagination	.67
Has Spirit of Inquiry or Curiousity	.65
Has Clarity of Purpose	.65
Has Courage to be Honestly Critical	.63
Is Intellectually Insightful	.63
Able to Synthesize and Relate Phenomena	.61
Exhibits Intellectual Rigor	.60
Demonstrates Complex Thinking Skills	.60
Makes Convincing Arguments	.59
Is Committed to Work	.58
Is Considered a Reliable Source of Information	.58
Understands Limits of Own Knowledge	.58
Accepts and Seeks Professional Scrutiny	.57
Allows Time for Insights to Develop	.57
Generates Valuable Ideas	.57
Searches for Integration of that Which is Known	.55
Provides Creative and Insightful Interpretations	.55
Views Scholarship as Both Process and Product	.54
Searches for New Information or Knowledge	.54
Upholds Rigorous Standards	.53

The third factor, Intellectual Characteristics of Scholars, accounted for 5.9% of the variation in the set of attributes of faculty scholarship. The factor includes variables that describe a wide range of intellectual and work-related skills, orientations, values, and products of intellectual activities.

Table 19

Factor Four: Creative and Artistic Attributes of Scholars

Variable Description	Factor Loading
Is Active in Production of Art	.81
Makes Work(s) Available for Contemporary Performers	.80
Exhibits Intentionality of Artistic Design	.79
Is an Active Performer	.78
Creates Scholarly Artistic Work	.78
Has Work Exhibited	.77
Is an Experienced Professional in the Arts	.76
Has Playscript(s) Published	.75
Has Performances Recorded	.75
Composes Across Media	.71
Choreographs	.69
Is an Outstanding Performer	.69
Creative Work Challenges Viewer	.65
Is a Theatrical Perfectionist	.61
Conducts Master Classes	.60
Demonstrates Mastery of Medium	.58
Work is Recognized and Performed by Others	.57
Demonstrates Craftsmanship	.56
Is a Recognized Literary and Social Critic	.53
Contributes to or Influences Field Through Translation	.51

Factor four, Creative and Artistic Attributes of Scholars, accounted for 3.9% of the total variation in the components of faculty scholarship. This factor

describes a wide variety of artistic and creative characteristics, processes, products, and impacts of faculty scholars.

Factor scores for each of the four significant factors were calculated for each respondent in the study using two different methods. The first method employed the regression weights from all variables in the study. The second method summed an individual participants' responses to the twenty variables with the highest loadings on the factor for which a factor score was being determined. Thus, four sets of factor scores were derived using the two calculation methods. The latter method was preferred for three reasons: (1) the number of valid observations used to calculate each factor score was increased because calculation involved only twenty variables rather than the full set of 249, (2) factor scores derived from twenty variables might encourage and facilitate use of the identified items and factors by other researchers, and (3) factor scores based on unit weights have been shown to be more reliable than those based on sample estimates. The factor scores generated by the two different methods were correlated to assess their degree of relationship. The Pearson product-moment correlation coefficients for pairs of factor scores representing the four factors were .95, .93, .91, and .95 respectively. The internal consistency of the twenty items comprising each factor was estimated through the calculation of Cronbach's alpha statistics; the resulting estimates were: .97, .96, .92, and .95 respectively. In summary, the factor scores derived through unit weighting of the twenty items with the highest factor loadings exhibited strong positive correlations with factor scores calculated using the standard weighted regression method. They also demonstrated exceptional internal consistency and were, therefore, selected for subsequent analyses.

Research Question 2: Can Variance in the Dimensions of Faculty Scholarship be explained through role theory?

This section of the chapter presents the results of analyses pertinent to the second research question, in which the factor scores representing dimensions of faculty scholarship served as dependent variables, and indicators of various components of role theory served as independent variables. Three sets of independent variables were investigated: (1) adult professional socialization variables, (2) attributes of individual faculty members, and (3) current-institutional characteristics. The results of analyses for the three sets of independent variables are presented in separate subsections. Each of a number of tests of significance was conducted across two disjoint, equal-sized samples. Oneway-ANOVA and t-test results rejecting the null hypothesis across both samples were considered reliable and significant. A table presenting the results of significance tests is provided for each set of independent variables. Each variable name appears in its appropriate table together with the results of the significance tests conducted for each of the four factor scores and the two samples of respondents. The results of the significance tests are labeled either: (1) NS, indicating that the test result was nonsignificant, or (2) the probability (p value) of the test result, assuming the null hypothesis was true. Within each table, replicated significant findings are indicated with an asterisk. Summary tables for all replicated significant results are provided in Appendix J.

Adult Professional Socialization

The first set of variables included the following indicators of adult professional socialization: (1) the level of the respondent's highest degree,

(2) the respondent's career age, (3) whether the respondent attended graduate school primarily on a full-time or part-time basis, (4) the Carnegie classification of the graduate institution from which the respondent's highest degree was conferred, (5) respondents' reports of the scholarliness of their graduate institution, (6) characteristics of the discipline or field the respondent studied in graduate school, (7) respondents' reports of the scholarliness of the department responsible for the graduate program from

Table 20

Results of Significance Tests for
Adult Professional Socialization Variables

Category/Variable Description	Replicate One Factors				Replicate Two Factors			
Individual Graduate Education	1	2	3	4	1	2	3	4
Highest Degree Earned	.00	.01*	NS	.03*	NS	.01*	.01	.01*
Part/Full Time Attendance	NS	NS	.01	NS	NS	NS	NS	NS
Graduate Institutional Factors								
Carnegie Classification	NS	NS	NS	NS	NS	NS	NS	NS
Perceived Institutional Scholarliness	NS	.02	.00	NS	NS	NS	NS	NS
Graduate Departmental Factors								
Discipline	NS	NS	NS	NS	NS	NS	NS	NS
Paradigm Development of Discipline	NS	NS	NS	NS	NS	NS	NS	NS
Pure or Applied Discipline	.01	NS	NS	.00	NS	NS	NS	NS
Perceived Departmental Scholarliness	NS	NS	NS	NS	NS	.02	.01	NS
Graduate Mentor Factors								
Number of Mentors	NS	.00	NS	NS	NS	NS	NS	NS
Perceived Mentor Scholarliness	NS	NS	NS	NS	NS	NS	NS	NS

*Denotes replicated significant result ($p < .05$)

which their highest degree was conferred, (8) the number of mentors a respondent had during graduate preparation, and (9) respondents' reports concerning the scholarliness of their primary mentor during graduate school.

The discipline or field the respondent studied in graduate school was categorized into the eight classifications specified by Anthony Biglan (1973a, 1973b) and discussed in Chapter II. These categories were further broken down to test for the effect of preparation within a field or discipline with well developed vs. developmental paradigm structure. This dichotomy has been referred to as the Hard vs. Soft field or discipline distinction. Biglan's model also specifies a categorization of academic fields and disciplines on the basis of whether the focus and primary purpose of the knowledge gained in a field is pure or applied. These differentiations were included in the analysis of disciplinary effects on the perception of scholarship.

The analyses did not result in many significant findings. The variable, highest degree earned, yielded two replicated significant outcomes. For both replicates, individuals with doctoral degrees had significantly higher factor scores on Factor 2, Publication and Professional Recognition, than did respondents with masters or other degrees. Doctoral-degree recipients had significantly lower Factor 4, Creative and Artistic Attributes of Scholars, scores than did individuals with masters or other degrees. This finding may be the result of larger proportions of faculty in the areas of art, theatre, interior design, and music that do not hold doctoral degrees. All other hypothesis tests involving adult socialization variables resulted in nonsignificant findings or nonreplicated significant results.

Variables Descriptive of Individuals

The second set of socialization indicators included assessments of ascriptive factors; career experience and perception; the influences of several reference groups; faculty member's status within the institution; instructional functions; and professional activities. Table 21 displays the results of significance tests for these variables. Summary tables for replicated significant results are presented in Appendix J.

Neither of the ascriptive variables resulted in replicated significant results. The variable, race, was deleted from the study, due to insufficient representation of minority groups. All hypothesis tests involving variables within the categories labeled Current Factors, Instructional Functions, and Professional Activities resulted in nonsignificant findings across replicates. Some variables within the Reference Group Factors and Status Within Institution categories proved significant in explaining variance in factor scores. Faculty members indicating that their profession highly influenced their scholarship had significantly higher factor scores on Factor Two, Publication and Professional Recognition, and on Factor Three, Intellectual Characteristics of Scholars. The other reference groups employed in the study, UNCG as an institution, faculty members' academic department, and close faculty colleagues, did not explain significant amounts of variance in factor scores.

Two more significant results were derived from variables assessing faculty members' Status Within the Institution--tenure status, and whether the faculty member currently served in an administrative position.

Table 21

Results of Significance Tests for
Variables Descriptive of Individuals

Category/Variable Description	Replicate One Factors				Replicate Two Factors			
Ascriptive Factors	1	2	3	4	1	2	3	4
Age	NS	NS	NS	NS	NS	NS	NS	NS
Sex	.03	NS	NS	NS	NS	NS	NS	NS
Current Factors								
Career Age	NS	NS	NS	NS	NS	NS	NS	NS
Years Service in Higher Education	NS	NS	NS	NS	NS	NS	NS	NS
Years Service at UNCG	NS	NS	NS	NS	NS	NS	NS	NS
Perceived Scholarly Performance	NS	NS	NS	NS	NS	NS	.00	.03
Twelve-Month Appointment	NS	.04	NS	NS	NS	NS	.03	NS
Reference Group Factors								
Influence of Institution	NS	NS	NS	NS	NS	.02	NS	NS
Influence of Profession	NS	.04*	.02*	NS	NS	.04*	.01*	NS
Influence of Department	NS	NS	NS	NS	NS	NS	NS	.05
Influence of Colleagues	NS	NS	NS	NS	.04	NS	NS	.00
Status Within Institution								
Faculty Rank	.02	NS	NS	NS	NS	.02	NS	NS
Tenure Status	.03	.04*	NS	NS	NS	.02*	NS	.03
Administrative Function	NS	.00*	.01	NS	NS	.01*	NS	NS
Instructional Functions								
Level of Students Taught	NS	NS	NS	NS	NS	.02	.02	NS
Semester Credit Hours Taught	NS	NS	NS	NS	NS	NS	NS	NS
Dissertation Involvement	NS	NS	NS	NS	NS	.00	.01	NS
Thesis Involvement	NS	NS	NS	NS	NS	NS	NS	NS
Independent Study Involvement	NS	NS	NS	NS	NS	NS	.01	NS
Professional Activities								
Professional Organization Memberships	NS	NS	NS	.03	NS	NS	NS	NS
Professional Organization Offices Held	NS	.03	NS	NS	NS	NS	NS	NS
Paid External Services	NS	NS	NS	NS	NS	NS	NS	NS
Unpaid External Services	NS	NS	NS	.01	NS	NS	.02	NS

Individuals with tenure or tenure-track appointments had significantly higher factor scores on Factor Two, Publication and Professional Recognition than did full-time faculty members without tenure track status. Similar results were found for individuals currently serving administratively as a Dean, Acting or Associate Dean, or as a Department Chair/Head; this group displayed a significantly higher mean on Factor Two than did individuals without administrative roles.

Current Institutional Variables

The final set of role theory variables assessed current institutional factors at the university and departmental levels. These variables included indicators of the size and proportion of department faculty with terminal degrees, the level of degrees offered by the department, and respondents' perceptions of the scholarly environment of the university and their department. Results for all hypothesis tests concerning current institutional variables are summarized in Table 22. No replicated significant results were found.

Table 22

Results of Significance Tests for
Current Institutional Variables

Category/Variable Description	Replicate One Factors				Replicate Two Factors			
University Factors	1	2	3	4	1	2	3	4
Perceived Institutional Scholarliness	NS	NS	NS	NS	NS	NS	NS	NS
Departmental Factors								
Size of Department	NS	NS	NS	NS	.02	.00	NS	.01
Faculty with Terminal Degree	NS	NS	NS	NS	NS	.03	NS	.05
Level of Degrees Offered	NS	NS	NS	NS	NS	NS	NS	NS
Perceived Departmental Scholarliness	NS	NS	NS	NS	.05	.NS	.02	NS

Research Question 3: Can Modal Role Conceptions of Faculty Scholarship be Identified?

Factor scores derived in response to Research Question 1 for each member of the stratified and equal-sized respondent groups were submitted for cluster analysis. Two separate cluster solutions, based upon the factor scores of respondents in each of the two replicate samples, were calculated. To determine the number of reliable clusters, the proportions of between-cluster sum-of-squares (R^2) values associated with successive cluster solutions were reviewed and plotted. Table 23 provides the R^2 values associated with the first 15 successive clustering solutions for both replicate samples.

Two considerations influenced the decision to interpret results for four clusters. First, the distributions of increments in R^2 values shown in Table 23 and Figure 1 suggest that the rate of increase in R^2 values diminishes for

Table 23

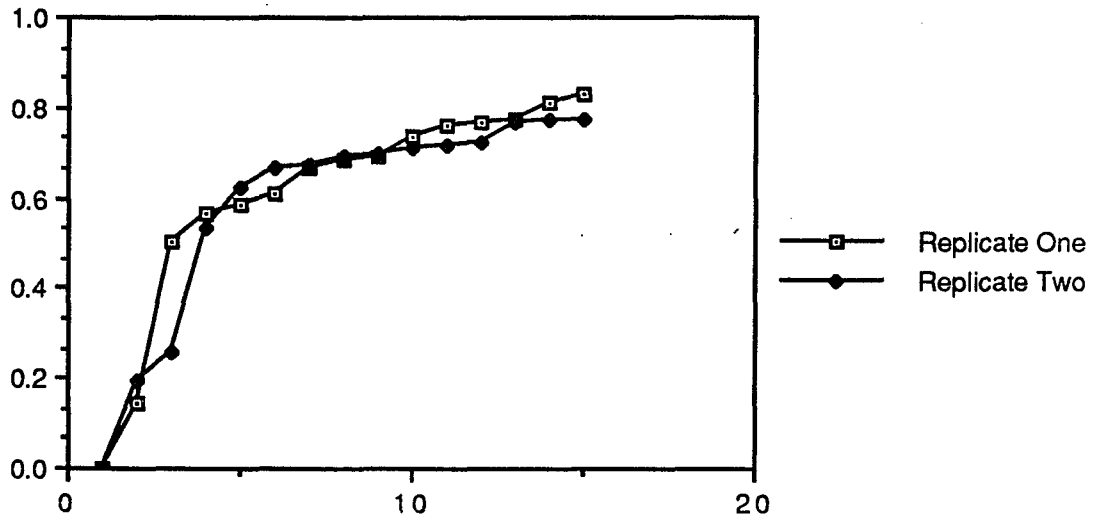
R^2 Values for First 15 Clusters Solutions

Clusters	Replicate 1	Replicate 2
1	.000	.000
2	.143	.196
3	.502	.259
4	.566	.535
5	.588	.622
6	.613	.668
7	.667	.675
8	.684	.690
9	.689	.696
10	.735	.709
11	.760	.715
12	.767	.724
13	.772	.767
14	.809	.771
15	.828	.776

clustering solutions involving more than four clusters. Second, examination of the sizes of clusters resulting from various solutions indicated that at least one cluster associated with solutions involving five or more clusters was very small. Such solutions were therefore considered to be unreliable.

Figure 1

Plot of R^2 Values by Cluster for Replicate Groups



Number of Clusters

The cluster analysis assigned membership to clusters on the basis of the similarity of factor scores derived in response to the second research question. Discrimination among the four identified clusters was examined by reviewing the means and standard deviations of each cluster on the four factors. Table 24 provides the number of members assigned to each cluster and summary factor-score statistics for each of the four clusters identified within the first replicate sample.

These data provided information concerning factor-score differences among clusters in the first replicate sample. In almost every case, the standard deviation of factor scores was greater for the total sample than for each of the clusters; in most cases, it was substantially greater. In addition, the clusters showed marked differences from one another on the basis of single-

Table 24

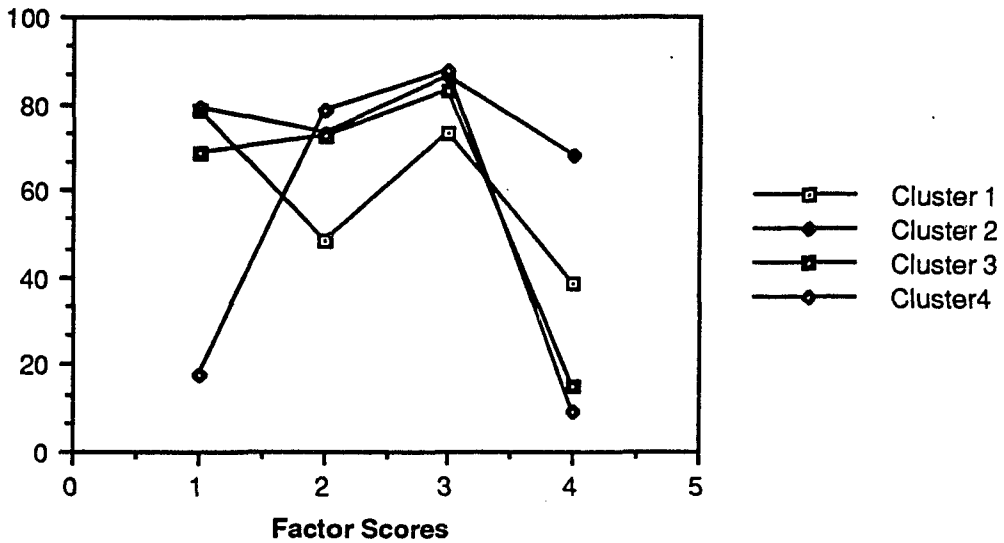
Replicate One
Descriptive Statistics of Cluster Groups

Cluster	n	Factor 1 Mean	Factor 1 SD	Factor 2 Mean	Factor 2 SD	Factor 3 Mean	Factor 3 SD	Factor 4 Mean	Factor 4 SD
One	27	78.5	10.5	48.1	16.5	73.4	12.4	38.6	13.0
Two	40	79.3	20.4	73.2	12.4	86.1	9.1	67.9	10.8
Three	58	68.4	18.4	72.3	16.1	82.8	10.1	15.1	12.4
Four	8	17.6	14.9	78.5	14.8	87.7	17.4	9.2	9.0
Total	133	70.7	22.6	68.0	18.1	82.2	11.7	35.4	26.1

factor-score statistics as well as the general pattern of factor score means. Figure 2, a plot of the factor score means for clusters in the first replicate sample, illustrates the difference in patterns of factor scores. All clusters exhibited relatively high means for Factor Three, Intellectual Characteristics of Scholarship, while greater variance was apparent for the other factors. Cluster 1, with 27 members, demonstrated relatively low averages on Factor Two, Publication and Professional Impact, and Factor Four, Creative and Artistic Attributes of Scholarship. Cluster 2, with 40 members, exhibited above-average means for all factors and was most distinguished by a very high mean of 67.9 on Factor Four. Cluster 3, the largest with 58 members, exhibited factor score means that paralleled the means for the total replicate sample, with the exception of a low Factor Four mean of 15.1. Cluster 4, the smallest group with 8 members, displayed the greatest extremes in factor

Figure 2

Graph of Replicate-One
Factor Score Means, by Cluster



score means with the lowest factor means for Factors One and Four and the highest factor means for Factors Two and Three. In summary, the four groups identified in the first replicate group appeared to represent very different segments of the respondent sample.

Parallel investigations were conducted with the data for the second replicate sample. Table 25 contains the number of members assigned to each of the four clusters and summary statistics for each of the factor scores. As with the first replicate sample, the clusters differed in size. The clusters also displayed great diversity in their patterns of factor scores. In almost all cases, the standard deviations in factor scores observed for the total sample were greater than corresponding within-cluster standard deviations. This result indicated that the clustering was successful in identifying respondents with similar patterns of response. Factor-score means were plotted for each cluster

Table 25

Replicate Two
Descriptive Statistics of Cluster Groups

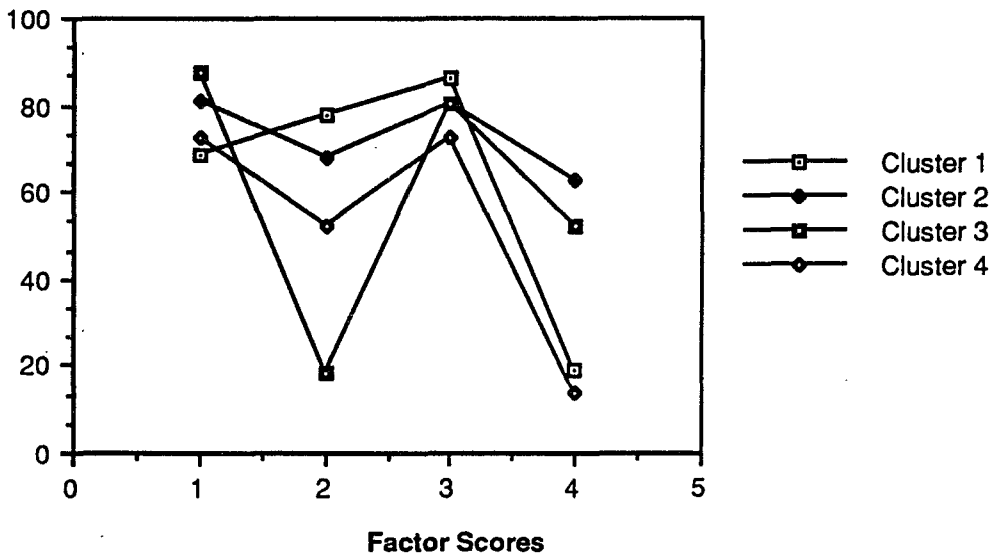
Cluster	n	Factor 1 Mean	Factor 1 SD	Factor 2 Mean	Factor 2 SD	Factor 3 Mean	Factor 3 SD	Factor 4 Mean	Factor 4 SD
One	58	68.4	20.3	77.5	9.7	86.0	8.1	19.2	12.5
Two	51	81.1	11.9	68.3	14.5	80.4	12.5	62.5	13.4
Three	7	87.9	5.5	18.3	11.9	80.1	8.7	52.6	13.8
Four	24	72.6	14.4	52.6	14.7	72.3	9.2	13.6	7.7
Total	140	74.7	17.2	66.9	18.9	81.3	11.1	35.7	25.0

in the second replicate sample and are presented in Figure 3. As with the first sample, a fairly high and consistent mean for Factor Three was evident for all clusters. The second replicate sample group displayed far less variation concerning respondents' perceptions of Factor One than did the first replicate sample; however, Factor Two and especially Factor Four were differentially regarded by the members of the four clusters.

Cluster 1, the largest group with 58 members, displayed the highest factor means for both Factors Two and Three and a fairly low mean on Factor Four. Cluster 2, another large group with 51 members, was characterized by a fairly high mean for Factor One and the highest mean for Factor Four. Cluster 3, with seven members, displayed the highest mean on Factor One and the lowest on Factor Two. Cluster 4, with 24 members, displayed the lowest means for Factors Three and Four, and was second lowest on Factor Two.

Figure 3

Graph of Replicate-Two
Factor Score Means, by Cluster



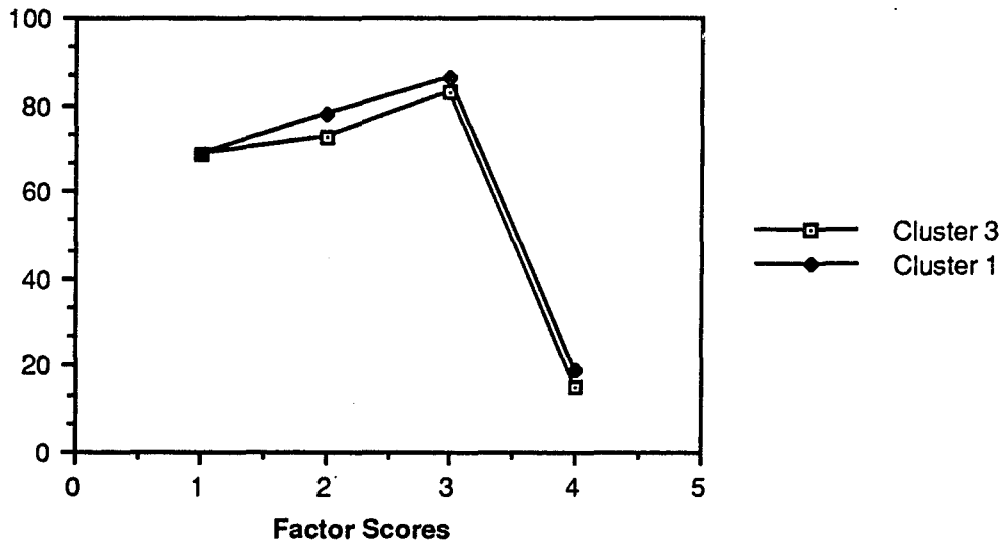
Having identified four clusters from each of the replicate samples, it was of interest to determine whether clusters from the two replicate samples shared similarities in their patterns of factor scores. Review of patterns of factor score means revealed that the larger clusters from each replicate sample did share similar profiles. The greatest similarity in profile was shared by Cluster 3 from the first replicate sample and Cluster 1 from the second replicate sample. It is of interest that these clusters contained the largest number of members in both replicate samples. Figure 4 displays the graph of factor score means for these two clusters. The similarity in profiles was striking.

Individuals with membership in these clusters assigned great importance to the intellectual characteristics of faculty scholarship, value

publication and teaching, and assign low importance to creative and artistic attributes within their conception of scholarship.

Figure 4

Graph of Factor Score Means for
Replicate Sample 1, Cluster 3 and
Replicate Sample 2, Cluster 1

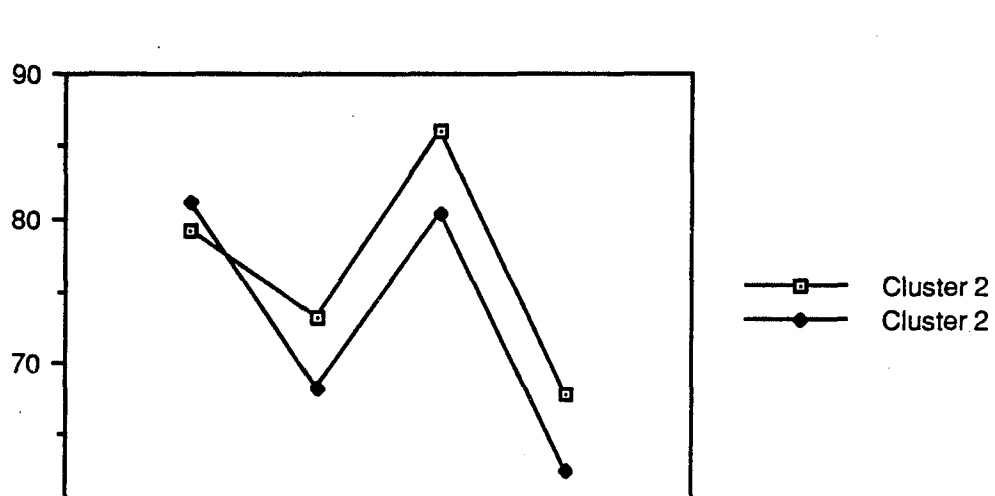


Two other cluster pairs from the two replicate samples showed similar factor-score profiles. Cluster 2 in the first replicate sample, the second-largest cluster with 40 members, shared a similar profile with Cluster 2 from the second replicate sample. The latter cluster was also the second-largest in membership, with a total of 51 members. Figure 5 displays the factor score profiles for these two clusters.

Respondents in these clusters assigned great importance to intellectual characteristics of scholarship and relatively lower importance to creative and artistic attributues. However, members of these clusters assigned greater importance to the creative and artistic attribute factor than did members of

Figure 5

Graph of Factor-Score Means for
Replicate Sample 1, Cluster 2 and
Replicate Sample 2, Cluster 2



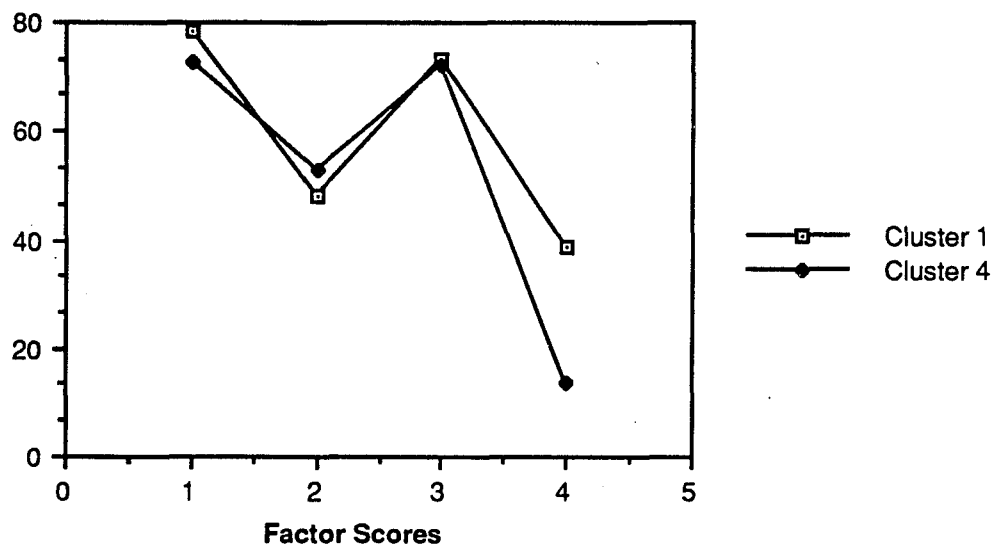
any of the other clusters identified in the study. An additional and interesting characteristic of these clusters was their members' assignment of higher importance to the teaching factor than the publication factor.

An additional pair of clusters that were similar in factor-score profiles was identified. Cluster 1 from the first replicate sample and Cluster 4 from the second replicate sample had a common pattern of factor scores, although Cluster 4 did not exhibit quite as high a factor-score mean on Factor Four as did Cluster 1. Figure 6 displays a graph of the factor-score means for these two clusters.

Members of these clusters were characterized as assigning the greatest importance to the teaching factor and considerably lower importance to

publication and professional recognition. Intellectual characteristics were highly valued.

Figure 6
Graph of Factor-Score Means for
Replicate Sample 1, Cluster 1 and
Replicate Sample 2, Cluster 4



Patterns of factor scores for the two remaining clusters were not similar to those of any other clusters. The two unpaired clusters were certainly not similar to one another on any attribute except their small memberships; only seven and eight faculty membersrespectively, were assigned to them.

Although review of plots of factor-score means provided some basis for assessing the similarity of resulting profiles and discerning some variant patterns in the perceptions of different faculty groups concerning the components of faculty scholarship, discriminant analyses were designed to assist in the identification of modal role conceptions of faculty scholarship.

The visual presentations of pattern similarities described above provided a framework for further exploration.

The four clusters, derived from the two replicate samples, were submitted to three multivariate discriminant analyses, one for each set of socialization variables: (1) adult socialization factors, (2) individual attributes, and (3) current-institutional factors. Only the variables that exhibited replicated significant effects across the two samples were considered reliable and significant.

The presentation of results for this final section of the chapter parallels that of Research Question 2, with a separate summary table provided for each of the three sets of socialization variables. In these analyses, a separate summary table is provided for each replicate as well. The tables present the entry and removal of variables at each step of a series of stepwise discriminant analyses. The resulting Wilks' lambdas and associated significance levels are also provided. Variables with significant discriminating ability for both replicate samples are indicated with an asterisk. Following each table, a brief summary is provided, together with the report of the canonical correlations associated with the discriminant scores and values of the squared canonical correlations. The results for the first replicate sample are followed by a parallel table for the second replicate sample.

Five of the ten adult socialization variables were selected for inclusion in the discriminant analysis. Three discriminant functions were derived from the analyses upon which discriminant scores for each case were calculated. The canonical correlations between the discriminant scores and the cluster groups were .42, .24, and.16 respectively. The squared canonical

correlation coefficients, which indicated the proportion of total variability in the discriminant scores explainable by differences between groups, were .18,

Table 26

Results of Replicate-One Discriminant Analysis with Adult Professional Socialization Variables

Step	Variable Entered	Wilks' Lambda	Significance
1	*Perceived Scholarliness of Mentor	.907	.03
2	*Carnegie Classification of Graduate Institution	.859	.03
3	*Career Age	.820	.03
4	*Paradigm Development of Field/Discipline	.781	.03
5	*Level of Highest Degree	.755	.04

.06, and .03 respectively. The null hypothesis that, in the population from which the clusters were drawn, the means of the discriminant functions were equal was tested with Wilks' lambda statistic. The Wilks' lambda was equal to .75, and the resulting Chi square was equal to 26.04 (df = 15, p = .04). The null hypothesis was rejected, and it was concluded that it would be unlikely that individuals from different clusters have the same means on the discriminant functions.

The same analyses were conducted for the second replicate sample. Table 27 presents a summary of the discriminant analyses with the adult professional socialization variables. In this analysis, nine steps contributed to the stepwise solution. All five of the variables entered in the discriminant analysis of the first replicate sample also appeared in the second analysis.

Two additional variables, perceived scholarliness of the graduate institution and perceived scholarliness of the graduate department, entered into the

Table 27

Results of Replicate-Two Discriminant Analysis with Adult Professional Socialization Variables

Step	Variable Entered or Removed (R)	Wilks' Lambda	Significance
1	*Level of Highest Degree	.874	.01
2	Perceived Scholarliness of Graduate Institution	.782	.00
3	*Career Age	.740	.00
4	*Perceived Scholarliness of Mentor	.696	.00
5	Number of Mentors	.662	.00
6	*Carnegie Classification of Graduate Institution	.637	.00
7	Perceived Scholarliness of Graduate Department	.613	.00
8	Number of Mentors (R)	.633	.00
9	*Paradigm Development of Field/Discipline	.608	.00

analysis. Number of mentors was entered and later removed from the analysis. The canonical correlations were .46, .42, and .24, and the squared canonical correlations, which reported the proportion of variance explained by differences between clusters, were .21, .18, and .06, respectively. The Wilks' lambda value was equal to .61, and the null hypothesis regarding equality of means on the discriminant functions for populations from different clusters was rejected ($X^2 = 44.98$, df=21,p= .00).

The second set of independent variables, those descriptive of individuals, were also submitted to discriminant analysis. Table 28 presents the results of the analysis for the first replicate sample.

Table 28

Results of Replicate One Discriminant Analysis with Variables Descriptive of Individuals

Step	Variable Entered or Removed (R)	Wilks' Lambda	Significance
1	*Perceived Own Scholarly Performance	.933	.05
2	*Semester Credit Hours Currently Taught	.877	.03
3	Memberships in Professional or Discipline-Based Organizations	.826	.01
4	*Academic Rank	.785	.01
5	Total Involvement with Theses	.749	.01
6	*Perceived Influence of UNCG on Scholarship	.721	.01
7	Total Involvement with Dissertations	.695	.01
8	*Total Unpaid Professional Consultations or Services	.673	.01
9	Age	.652	.01
10	*Sex	.632	.02
11	Total Involvement with Theses (R)	.650	.01
12	Perceived Influence of UNCG Department on Scholarship	.631	.02

This analysis resulted in twelve steps. Ten variables ultimately composed the discriminant functions. The canonical correlations for the three sets of discriminant scores were .46, .37, and .26. The squared canonical correlation values were .21, .14, and .07, respectively. The null hypothesis

concerning equality of population discriminant function means was rejected (X^2 = 48.84, 30 df, p = .02), and, it was concluded that individuals from different clusters would not have equal means on the discriminant functions. Results for the second replicate sample are presented in Table 29.

Table 29

Results of Replicate-Two Discriminant Analysis with Variables Descriptive of Individuals

Step	Variable Entered or Removed (R)	Wilks' Lambda	Significance
1	Perceived Influence of Colleagues on Scholarship	.894	.01
2	Perceived Influence of Profession on Scholarship	.809	.00
3	*Semester Credit Hours Currently Taught	.755	.00
4	*Sex	.709	.01
5	*Perceived Influence of UNCG on Scholarship	.674	.00
6	*Perceived Own Scholarly Performance	.647	.00
7	Number of Offices in Professional or Discipline-Based Organizations	.620	.00
8	Total Paid Professional Consultations or Services	.587	.00
9	*Total Unpaid Professional Consultations or Services	.555	.00
10	*Rank	.530	.00
11	Years Employed at UNCG	.502	.00

Eleven variables were successively entered into the discriminant function for the second replicate sample. Six of these variables appeared in the previous discriminant analysis conducted with the first replicate sample. The canonical correlations were .54, .44, and .35, respectively. The squared

canonical correlation coefficients were .29, .19, and .12, respectively. Wilks' lambda was equal to .50, and the null hypothesis that, in the population from which the samples were drawn, there was no significant difference in discriminant function means was rejected ($X^2 = 72.72$, df = 33, p = .00).

The final set of independent variables, current-institutional factors, was submitted to discriminant analysis for the two replicate samples. Table 30 presents the results of the procedure for the first replicate sample.

Table 30

Results of Replicate-One Discriminant Analysis with Current Institutional Variables

Step	Variable Entered	Wilks' Lambda	Significance
1	*Department Size	.962	.23

This set of variables included only five factors. Department size was the only variable upon which differences could be discriminated among the clusters. The canonical correlation was .19, and the squared canonical correlation coefficient was .04. The Wilks' lamba was equal to .96, and the null hypothesis concerning the equality of the population discriminant function means was retained ($X^2 = 4.2$, df = 3, p = .23).

The analysis conducted with the replicate sample paralleled the previous analysis in procedure and results. Table 31 provides the summary of the discriminant analysis for the second replicate sample.

For the second replicate sample, the same variable, department size, reduced Wilks' lambda sufficiently to be entered into the discriminant function; however, no other variables were successful in discriminating among the

Table 31

Results of Replicate-Two Discriminant Analysis with Current Institutional Variables

Step	Variable Entered	Wilks' Lambda	Significance
1	*Department Size	.926	.03

clusters. The canonical correlation coefficient was .27, and the squared canonical correlation coefficient was .07. The Wilks' lambda value was equal to .93, and the null hypothesis regarding equality of the discriminant function means was rejected ($X^2 = 9.04$, df = 3, p = .03).

CHAPTER V

DISCUSSION

The literature on higher education has been abundant with discussion concerning the nature of the faculty cohort, the culture within which they function, and their scholarship. The concept of scholarship is central to the academic life; for many, such a construct encompasses the essence of the academy. Despite its apparent centrality, a construct of faculty scholarship has not been well specified or comprehensively investigated.

Past studies focusing on scholarship have often operationalized scholarship by counting the frequency with which faculty engage in certain activities such as publishing articles or writing grant proposals. Other studies have operationalized scholarship in terms of the impact of a faculty member's publications on the profession, measured by counting the number of citations associated with their writings. These assessments have been considered important indicators of scholarship; indeed, indicators of professional activity and publication have gained considerable influence in awarding merit salary increments and making appointments to tenure in the past decade.

However, the research model was not always ascendant in higher education; there was a time, not long ago, when the faculty member who published research was considered to have done so for his/her own benefit and pleasure. In the dominant conception, the role of a faculty member was to teach and to guide students to be productive citizens of the larger society. There was no question as to whether these individuals in professorial roles

were considered scholarly. They were. Society bestowed faculty with high esteem and status. It was not necessary for faculty to publish products of their knowledge to achieve esteem. Many faculty members share these values; there has been and will continue to be great debate in the field of higher education concerning the presence or absence of role conflict for a faculty member "hired to teach; paid to publish."

It is clear that the prevalent system of reward across higher education compensates publication and professional activity over teaching and service activities. However, one can legitimately question whether this system rewards what faculty consider to be their scholarly role. This study was designed to provide definitional clarity to the construct of faculty scholarship as faculty perceive their scholarly role.

This study departed from previous investigations by asking a large sample of faculty from many academic disciplines and fields within a single university to specify the content domain of faculty scholarship from their own point of view. Speculation was put aside, and faculty at this one institution were allowed to define scholarship by first identifying the components of scholarship, and second by weighting the importance of the components within their own conception of scholarship. Though conducted in five stages, the study can be described in terms of two major components: (1) specification of the content domain of faculty scholarship, and (2) identification and exploration of the significant dimensions of faculty scholarship. This chapter will review findings from two major stages of the study, comment on relationships between the results of this study and earlier

findings reported in the higher education literature, discuss the limitations of this study, and make recommendations for future research.

Stage One

The first stage of the study obtained faculty members' specifications of the content domain of faculty scholarship. The product of this stage of the study, 462 attributes of faculty scholarship, clearly illustrated the complexity of the construct of faculty scholarship. The 86% response rate of faculty to the task of nominating scholars and describing their scholarly characteristics reflected the importance of the issues examined in this study; a response rate of this magnitude is unprecedented in research of this type with faculty. Many comments of participants throughout the study emphasized their continued interest in the topic and the outcome of the study.

The number and nature of components and attributes proposed by faculty in Stage One of the study supported the claim that the construct of faculty scholarship is complex, perhaps more complex than suggested by previous researchers. However, the pioneering work of Braxton (1980), Braxton and Toombs (1982), and Pellino, Blackburn, and Boberg (1984) also suggested that the construct of faculty scholarship was broader than the conceptions suggested by others. One conclusion from this study must be that these pioneers were correct; the construct of faculty scholarship is indeed complex.

A review of the inventory of the proposed attributes of faculty scholarship is illuminating. Among the components proposed are many familiar to those who engage in faculty evaluation. The tripartate of the faculty role (i.e. research, teaching, and service) was well represented

throughout the inventory. A great many of the proposed attributes addressed the many modes of publication with which faculty communicate with their colleagues and the public. Also listed in the inventory were components related to grant proposal writing and funding. However, many of the proposed attributes specifically focused on the teaching process and described with clarity, the value associated with being a mentor and assisting and caring about the development of others. The faculty service role was also well represented, and was described as a component of scholarship when it encompassed activities within the academic unit, across the institution, and beyond the campus to the profession or discipline and society at large. The breadth and scope of the attributes and components of scholarship proposed in this study was also illustrated by the number of entries that addressed faculty orientations, characteristics, skills, values, and attitudes.

As delineated by the faculty contributing to this study, the concept of faculty scholarship includes much more than faculty engagement in specific activities. The content domain specified by the faculty at this institution incorporated many activities, products and outcomes that, although considered important, are not evaluated, perhaps cannot be evaluated, and are certainly not rewarded. The depth, scope, and richness of the attributes of scholarship generated by the faculty in this study highlight the inadequacies of traditional definitions that are typically used in evaluations of faculty.

Although the validity of the information gathered in this study was strongly endorsed by the faculty participants, the generalizability to other campuses of the content domain produced by this study remains to be demonstrated. The content domain of faculty scholarship that applies to one

regional doctoral-granting institution may not be the same as one that applies to another regional doctoral-granting institution, to a technical community college, or to a major research university.

In regard to the implications of the first phase of the study for future action or research, it would seem prudent that the terms employed in the higher education literature might be refined to the extent that the word "scholarship" no longer is used as a synonym for publication. The extensiveness of the domain of scholarship identified in the current study calls into question the presumption that enumerations of publications or counts of citations can serve as adequate indicators of scholarship. The results of the present study challenge the content and construct validities of previous methodologies for the assessment of faculty scholarship. The construct validity of previous definitions is directly threatened due to what Messick (1989) would term "construct underrepresentation."

Stage Two

The second phase of the study sought to identify the significant dimensions of faculty scholarship. This was accomplished by using survey research methods to gather faculty perceptions of the importance of the components of faculty scholarship generated in Stage One of the study. Prior to a review of the results of the three major research questions addressed in this study, preliminary remarks address the response rate of the study and the implications of this response rate.

Response Rate

The response of faculty to the survey instrument was generally positive, and the response rate was normatively adequate. The 65.7%

response rate obtained in this study was as high as any reported in previous surveys of university faculty members. Parsons and Platt's study (1973) achieved a return rate of 65%. Later studies did not achieve these levels of response: Fulton and Trow (1974) acheived 60% for their study for the Carnegie Commission on Higher Education. The American Council on Education study, conducted by Faia (1976) resulted in a 49% response rate. The Carnegie Council on Policy Studies in Higher Education survey reported by Roizen, Fulton, and Trow (1978) obtained a 51.5% participation rate, and Ladd and Lipset's (1975, 1978) surveys achieved response rates of 45.3% and 51.7% . Zacharias (1983) reported that response rates of 50% with surveys of faculty have come to be regarded as acceptable and standard; however she has also cautioned against acceptance of such response rate levels. Nonrespondents in all studies typically differ systematically from respondents. Within the faculty cohort, factors such as skepticism concerning survey research, distrust of statistical analyses, or other attitudinal factors related to respondents' discipline, the topic under study, or the researcher might play important roles in nonresponse. Thus, it is imprudent to consider nonresponse random, and it is inappropriate to generalize to all members of a faculty population, survey results emanating from studies with less than an 80% response rate. This is not to say that the results of this study are without merit. A 65.7% response rate is considerably better than that obtained in many studies conducted with academics. Proportions of faculty responding by critical variables was assessed, and respondents were found to mirror all faculty in the institution on several important variables (i.e., sex, rank, age, HEGIS code of academic discipline, highest degree earned). It was found that

individuals with non-tenure-track appointments were less likely to respond; thus, the results of the study may be less generalizable to these faculty members than the general faculty population.

The second stage of the study addressed three major research questions: (1) How is faculty scholarship defined by faculty?, (2) Can variance in the dimensions of faculty scholarship be explained through role theory?, and (3) Can modal role conceptions of faculty scholarship be identified? The results of analyses addressing each of the research questions will be presented in separate subsections. The correspondence of the current findings with literature in the field and limitations of the study will be discussed. Finally, recommendations for future studies will be made.

Research Question 1: How is Faculty Scholarship Defined by Faculty?

An important object of Stage Two of the research study was to identify the significant dimensions of faculty scholarship. This was achieved through principal components analysis of the weights assigned by faculty to the attributes of scholarship generated in the first phase of the study. A good principal components or factor analysis solution is said to be one that explains as much of the variance in the variables as possible with the fewest number of factors, while producing an easily interpretable factor structure that relates clearly to accepted psychological theories. The principal components factor structure obtained in this study satisfied these criteria.

Four significant dimensions of scholarship were identified: (1) Pedagogy, (2) Publication and Professional Recognition, (3) Intellectual Characteristics of Scholarship, and (4) Creative and Artistic Attributes of

Scholarship. The items loading significantly on these factors of scholarship displayed much of the breadth and depth of the total set of components produced in Stage One of the study. The resulting factors described not just what faculty scholars do, but the way in which they go about the activities they pursue, their general orientations, and their values associated with activities, processes, and products. Several of the variables that loaded highly on the factors also encompassed the outcomes and consequences of faculty members' activities and orientations, such as has long-lasting positive impact of teachers on students, and concern for the development of others. Such contributions are not easily or often explored in evaluations of faculty; although, it cannot be denied that orientations and effects of this nature are major intended outcomes of effective faculty intervention.

It is heartening that in a time when faculty are rewarded largely for tangible manifestations of their scholarship, that faculty embrace so strongly the intangible and latent products of their efforts. The high internal consistency estimates for all four factors confirm that the items loading on any single factor assess a single dimension.

The first factor that emerged in this study related to pedagogic activities and orientations of faculty. It has been stated by many observers of higher education that teaching is considered the primary responsibility of faculty. National studies of faculty have indicated that teaching is the major role with which faculty associate themselves (Ladd, 1979). In a previous study (Pellino, Blackburn, & Boberg, 1984) that used an inventory of activities and asked faculty members from a variety of institutional types to indicate the importance of the activities to their conception of scholarship, faculty

members, (with the exception of faculty employed at research oriented institutions), ranked teaching as the most important component of their role. However, the pedagogy factor was the sixth and last to emerge in that study, accounting for less than three percent of the variance of items in the analysis. This is a puzzling result, given that the pedagogy factor had many more items contributing to it than did the other factors identified in that study. This observation may lend further credence to the contention that the content domain of the pedagogy factor, (and perhaps other factors of scholarship), have not been adequately specified in previous studies.

The content of the pedagogy factor identified in the current study corresponds with comments of McGee (1971) regarding prevailing attitudes about teaching at the colleges he investigated. McGee indicated that "concern with and for students and the conditions of their instruction is universal. (p. 193)" This commentary is congruent with the nature and scope of the items that defined the pedagogy factor in this study.

Additional studies will be needed to examine the generalizability and consistency of the factors obtained in this study and to clarify the valence of pedagogy within the overall construct of faculty scholarship. It is, nonetheless, noteworthy that a factor that describes the teaching role in such broad and rich terms emerged as the strongest and most significant dimension of faculty scholarship at an institution with a heritage of excellence in teaching.

The second factor, Publication and Professional Recognition, conveyed the importance of publication and service to the profession or discipline through many modes of publication, editorial contribution, and leadership in

a field or discipline. Although the first factor seemed to relate to institutional considerations, the second factor related to concerns largely external to the campus; i.e., the demands of a faculty member's professional and disciplinary community. The local-cosmopolitan "academic type" distinction is a familiar one in the higher education literature (Gouldner, 1957; Babchuk and Bates, 1962; McGee, 1971; Light, 1974), and the current study empirically demonstrated the presence of two independent factors that described this recurrent academic theme.

The third factor, Intellectual Characteristics, was not expected, although, from the interviews and a review of descriptions of scholar nominees, it is apparent such a factor might have emerged. Of particular interest is the high regard in which this factor was held by almost all faculty. Smaller variation in factor scores was apparent for this factor than for the other three factors. Regardless of cluster membership, Intellectual Characteristic factor scores were consistently high, an indication that such skills, values, and contributions are universally valued.

The fourth factor, Creative and Artistic Attributes of Scholarship, exhibited the largest standard deviation in factor scores of all the factors. This outcome is plausible since many faculty are not involved in creative and artistic pursuits, particularly some of the specific activities and processes that define this factor (i.e.; choreographs, composes across media, is active in production of art, etc.). However, on a campus steeped in a liberal arts tradition with degree programs in art, music, theatre, dance and other applied and professional creative areas, a significant portion of faculty do engage in such activities and embrace the processes and values identified by this factor.

Hence, the emergence of this factor as a significant dimension of faculty scholarship at the university investigated is quite plausible.

The content and structure of the factors identified in this study were easily interpreted. However, two further considerations should be mentioned. First, although the order of the factors was determined by the magnitude of the eigenvalues associated with the factors, it is unclear whether the true valence of the factors within the overall framework of faculty scholarship is appropriately represented by the eigenvalues. No attempt was made to control the proportions of items addressing potential factors. Future studies might address this issue by controlling the number of items included in the survey that assess the factors of interest, thus rendering the proportion of variance accounted for by factors more interpretable within the overall construct of academic scholarship. Second, if one appropriately assumes that nonresponse in this survey was not random, then one must also consider the possibility that additional, perhaps important, factors of faculty scholarship might not have been identified.

Research Question 2: Can variance in the Dimensions of Faculty Scholarship be Explained through Role Theory?

This research question was addressed through a series of inferential analyses involving variables related to faculty members' perceptions of their roles and previously-derived dimensions of the construct of faculty scholarship. Three sets of independent variables that relate to faculty members' perceptions of their roles have been identified: (1) adult professional socialization variables, (2) attributes of individual faculty members, and (3) current-institutional variables. Four factor scores,

representing dimensions of faculty scholarship, were generated for each respondent in the study and served as dependent variables. Each test of significance was conducted across two disjoint, equal-sized samples. Test results rejecting the null hypothesis across both samples were considered reliable and significant.

Analyses across the three sets of independent variables did not result in many significant findings. Significant results tended to be consistent with findings that have been demonstrated repeatedly in the literature. For example, individuals with doctoral degrees had significantly higher factor scores on Factor Two, Publication and Professional Recognition, than did respondents with masters or other degrees. Such a result was expected, since advanced-degree holders likely participated in an extended socialization process that introduced them to the prevalent values of publication. Doctoral-degree holders have been shown to be more likely to publish than are master-degree recipients. Doctoral-degree holders also scored lower on Factor Four, Creative and Artistic Attributes of Scholars, than did individuals with masters or other degrees. This finding may be the result of larger proportions of faculty with masters degrees holding appointments in areas generally linked with creative and artistic activities (i.e.; art, music, theatre, interior design). No other adult professional socialization variables resulted in significant findings, even though the literature has suggested that factors such as the Carnegie classification of the institution from which the highest degree was conferred might explain variance in Factor Two.

Few of the variables descriptive of individuals resulted in significant findings. Faculty members who indicated that their profession highly

influenced their scholarship had significantly higher factor scores on Factor Two, Publication and Professional Recognition. Factor Two, in many ways, describes the cosmopolitan academic point of view, in which the scholarly role is a function that is performed outside of, or in addition to, the teaching role. Babchuk and Bates (1962) explicitly delineated two professional communities that coexist on colleges campuses: the community of college teaching and the community of disciplinary specialists. The latter group is active in the production of journal articles and other disciplinary writings, and these activities signify membership in the community of disciplinary specialists. The results of this study are consistent with the view that external, professional or disciplinary factors would explain variance in the importance assigned to a factor representing Publication and Professional Recognition.

Faculty members who indicated that their profession or discipline highly influenced their scholarship had significantly higher factor scores on Factor Three, Intellectual Characteristics of scholars. It may be the case that faculty members who perceive their profession or discipline as an important reference group also associate the characteristics described in Factor Three with that external group. Certainly, professional and disciplinary publication and service provide ample opportunity for the demonstration of many of the intellectual characteristics described in Factor Three (i.e.: able to synthesize and relate phenomena; makes convincing arguments; is considered a reliable source of information, and accepts and seeks professional scrutiny).

Faculty members with high Factor Two scores were also found to be more likely to have a tenure-track appointment than a non-tenure-track

position and to have a current administrative duties as a Dean or Department Chair or Department Head. These two findings are, to a certain extent, related, since all individuals with administrative duties have tenured appointments. Younger faculty in tenure-track positions feel pressure to publish to achieve tenure, and it is consistent with the academic career stage for these faculty members to ascribe importance to publication and professional recognition. Individuals with non-tenure-track positions are not pressured to publish, and are generally employed for the purpose of teaching. It would be unlikely that such individuals would assign great importance to professional activities and publication. It has been demonstrated in earlier studies that individuals with administrative roles consistently rated publication and professional activities higher than did individuals without administrative functions (Pellino, Blackburn, and Boberg, 1984; Kasten, 1984; Stark, 1986). Fulton and Trow (1974) found that, at research institutions, individuals serving in administrative roles were more likely to have recently published than were those not in administrative roles. The results of this study tend to be consistent with those of other studies.

It is interesting that none of the current-institutional variables resulted in replicated significant findings. At least two possible explanations can be advanced for the lack of significant results. First, this might be attributable to fairly recent and dramatic alterations in the mission and goals of the institution where this study was conducted. The university has been transformed from a liberal arts teaching institution to a doctorate granting institution. These changes have resulted in massive upheavals in the level and number of degrees offered; curriculum content; sizes of departments; and

retention and hiring practices of faculty within many academic departments. The recent planning activities of the institution illustrated the difficulty of attempting to orchestrate an institutional self-study. Many voices are heard; no consensus is apparent regarding the institution's purposes and where it is going. The challenge of conveying an institutional, and perhaps even a departmental, message is formidable. Second, this institution is not alone in the nature and type of changes that it has recently experienced (Rice, 1986). There is widespread concern here, and on many other campuses, that the institution is attempting to emulate the "research university" model. As research and publication have become increasingly important in the determination of academic careers, the influence of local institutions on evaluation, funding opportunities, and significant career rewards has abated (Ladd, 1979; Bowen and Schuster, 1986). The professionalization of faculty has provided even greater autonomy to faculty than was previously the case. As faculty have advanced in training and specialization, the influence upon faculty scholarship of the local institution, and colleagues within it, may have lessened. Thus, it is not surprising that current-institutional factors did not relate to faculty members' perceptions of the dimensions of scholarship.

The absence of significant current-institutional effects upon faculty conception of scholarship is particularly interesting when contrasted with the significant effects that the influence of the profession displayed. These findings, taken together, tend to support the claims of many observers that the profession or discipline has replaced the institution as the primary source of evaluation of academic performance (Ladd, 1979).

Finally, statistical properties of several independent variables undermined successful explanation of variance in factor scores. The various measures used as independent variables were forced into categories for use in one-way analyses of variance. Collapsing interval-level variables into categories decreased the precision of measurement, thereby decreasing predictive power. Homogeneity of variance assumptions were difficult to satisfy for many of the variables, and when data transformations intended to produce homoscedasticity were not effective, further collapsing of categories was often necessary. Finally, this study stipulated a rigorous definition of results that would be considered statistically significant. Only significance tests that rejected the null hypothesis in both replicate samples, using an alpha level of .05, were considered reliable enough to be deemed significant. Had this rule not been specified, many more hypothesis test results would have been reported as significant; however, the reliability of these findings would have been questionable.

As with all components of this study, the findings pertinent to the second research question should be replicated with independent samples of faculty from other institutions. Although some of the results reported here are consistent with those of earlier studies, very few researchers have explored the construct of faculty scholarship. Thus, direct parallels with a substantial body of literature are not available, and the need for further study is obvious. However, one of the goals of the study was to contribute to the tentative framework of a nomological network that could structure additional work. Significant variance in factor scores derived from the dimensions of faculty scholarship was explained through some of the role-

theory-based components of socialization. Therefore, testing of the limited nomological network has been introduced, and the construct validation process has been initiated.

Research Question 3: Can Modal Role Conceptions of Faculty Scholarship be Identified?

Factor scores derived in response to Research Question 1 for each member of the stratified and equal-sized replicate samples were used in cluster analyses. The analyses assigned faculty members to clusters on the basis of the similarity of their factor scores. Four clusters were identified within each of the replicate samples. Review of descriptive statistics for each cluster revealed that the cluster analyses had produced distinct subsets of faculty members. Review of the graphs of the factor score means confirmed the finding that the factor-score patterns associated with the four clusters were distinct. These results were replicated across the two disjoint samples of respondents.

Further analyses revealed that the three largest clusters from the first replicate sample shared a similar factor score profile with a cluster from the second replicate sample. As would be expected in a stable cluster analysis solution, the largest clusters from each replicate sample shared the same factor score profile, as did the second-largest clusters and the third-largest clusters. Multivariate discriminant analyses indicated that membership within the identified clusters could be distinguished on the basis of linear combinations of the independent variables. In other words, individuals from different clusters did not have the same means on the discriminant functions.

This evidence suggests three possible conclusions. First, that subpopulations of faculty share distinct dispositions regarding the construct of faculty scholarship. The consistent patterns of factor-score means associated with faculty members in a given cluster and the distinctiveness of patterns found for faculty in different clusters may be indicative of modal role conceptions of faculty scholarship. Second, these patterns are reliable. Similar factor-score profiles were independently observed in two replicate samples. Third, the congruence between the replicate samples in the proportionate allocation of faculty members to clusters might indicate stability in the proportions of faculty members who ascribe to various modal role conceptions.

The three modal role conceptions of faculty scholarship identified in this study were consistent in the value placed upon intellectual characteristics of faculty members. High regard for intellectual characteristics appears to be universal. However, considerable differences were apparent in the importance assigned to Pedagogy, Publication and Professional Recognition, and Creative and Artistic Attributes of Scholarship. The diversity of values assigned to these factors defined distinct role conceptions of faculty scholarship.

The largest clusters in both replicate samples were characterized by a very high regard for Intellectual Characteristics and relatively low importance assigned to Creative and Artistic Attributes. Members of these clusters also valued publication slightly more than teaching, although they rated both factors highly. These faculty members might be termed, "Balanced with Low Art."

The second-largest clusters in each replicate sample were best characterized by faculty members' generally high valuing of all of the factors; these faculty were especially noteworthy because they assigned higher value to the Creative and Artistic Attributes factor than did members any other cluster. These faculty might be characterized by the label, "Balanced with High Art"

The third-largest clusters in both replicate samples were characterized by faculty members' assignment of fairly high importance to Pedagogy and assignment of lower importance to Publication and Professional Recognition than was true of faculty members in any other cluster. These faculty members might be characterized by the label, "High Pedagogy and Low Publication."

The identification and replication of three very different modal role conceptions of faculty scholarship held by members of the faculty introduces another potential justification for the poor performance of individual variables derived from role theory in explaining variance in the dimensions of faculty scholarship. Perhaps within each of the identified clusters, significant variance in the dimensions of faculty scholarship can be explained with role theory variables; however, the aggregation of all of the clusters in the pursuit of significance might well have masked existing differences. Further exploration of these major and minor role conceptions of faculty scholarship is surely warranted and might prove to be fertile. The results of this study have demonstrated that variables derived from role theory have predictive power in discriminating cluster centroids. Therefore, it seems reasonable to assume that the same variables will assist in understanding the

composition and nature of the memberships of the clusters. In addition, if it is found that similar clusters of faculty exist on other campuses, such findings might provide new insights into research questions that have belligerently refused solution. For example, the relationship between teaching effectiveness and scholarly productivity might indeed be strong and positive for a particular cluster of faculty members, but not for the general faculty population. Continued research is necessary to determine, first, whether similar clusters of faculty members might be discovered at other institutions, second, whether membership in these clusters has explanatory power with other variables of interest to those that study the professoriate, and third, whether variables that contribute strongly to functions that discriminate among cluster centroids have definable roots in role theory.

Earlier literature in higher education has described vividly two general types of faculty member: the local and the cosmopolitan (Gouldner, 1957; Babchuk and Bates, 1962; McGee, 1971; Light, 1974). This dichotomy has been widely referenced and has provided structure for many discussions of latent organizational roles. Fulton and Trow (1974) outlined the division of labor in higher education, and pointed out the strains created by faculty members who are performers and practitioners. These faculty members do not fall into the traditional divisions of labor on university campuses. Fulton and Trow contend that the difficulty encountered in assessing creative work is responsible for universities' resistance to appoint large numbers of creative artists and practitioners to regular academic ranks. This contention is bolstered by the fact that "these marginal departments also employ much higher proportions of marginal ranks. (Fulton and Trow, 1974, p. 69)"

The results of this study suggest that the local and cosmopolitan dichotomy is not sufficient to describe the activities, products, values, and orientations, either manifest or latent, of faculty scholarship as perceived by faculty. The creative, artistic, and intellectual characteristics of faculty scholarship appear to be of great importance to a substantial number of faculty members in the university studied here.

Comments from participating faculty from across the creative and performing arts underscored their feelings of marginality. Faculty in these academic areas felt a need to be defensive in justifying and defining their scholarship, if they were to obtain accurate and just evaluation from administrators and colleagues outside their areas. Many reported great interest in this study, and hoped that the results would provide enhanced understanding of their distinct and important notion of scholarship.

Although this study will have no impact on the evaluation of individual faculty, it might influence the development of a broader notion of scholarship, perhaps only at this single institution. Rice (1986) has stated that there "needs to be a primary focus on scholarship more broadly defined. (p. 20)" He continues:

> the new conception should make scholarship the central focus of the profession. The demonstration of scholarship should be required, but the form it takes should be allowed to vary broadly, and its ties to teaching and learning should be assessed and honored. (p. 20)

The current study has identified four significant dimensions of faculty scholarship for a regional doctorate-granting institution. It has also provided insights into the diverse ways faculty conceptualize scholarship. There appear to be subpopulations of faculty who ascribe the greatest importance to

the teaching role and minimal importance to publication. There appear to be faculty who value publication and teaching equally; these faculty members might find these activities to be mutually reinforcing, as some observers have contended. Distinct subpopulations of faculty view the creative and artistic domain of scholarly activity in very disparate ways. These various orientations toward the complex construct of scholarship are important; they might well define modal faculty role orientations. Further clarification of the major and minor modal role conceptions identified in this study is necessary. Much more study will be required to understand more fully the nature of the various role conceptions represented by these clusters, as well as the individuals that define them. The significance of the modal role conceptions may aid in the development of more appropriate performance assessment of faculty.

Additional research is always to be recommended, and since the present study was exploratory, future investigations are critically important. If bias errors resulted from the 66% response rate achieved in this study, the factors and clusters of faculty members identified in the study might not be found in subsequent studies. The dimensions of faculty scholarship identified in this study might not be replicated on other, similar campuses; the generalizability of the results found here must surely be examined. Likewise, the generalizability of the modal role conceptions of faculty scholarship identified here should be explored. The congruence between role demands, role conception, and role performance would provide new conceptions of the meaning of faculty scholarship. If the dimensions of faculty scholarship identified here are replicated for faculty at similar

institutions, it would be useful to explore differences among significant dimensions of faculty scholarship at institutions with very different missions and goals.

Finally, the results of this specific study for this campus suggest that consideration be given to a broadened conception of faculty scholarship that recognizes and legitimizes the scholarly activities of many more faculty members. Extended interviews with more than 50 faculty members in a representative sample of academic departments clearly revealed that many different cultures coexist within the academy. It is ironic and disheartening that a campus aspiring to "celebrate cultural diversity," evidences little understanding, openness, and respect for different modes of faculty scholarship. It would be misleading to suggest that no understanding and respect were encountered during data collection; that which was found was inspiring and sustaining. Perhaps this study can inspire and sustain as well.

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Appendix A

Stage One Pilot Study Instrument-
Form A

AN EXPLORATION OF FACULTY SCHOLARSHIP

The concept of faculty scholarship, though central to the role of academics, has never been well specified in the higher education literature. The literature displays great diversity in the definition, measurement, and evaluation of faculty scholarship. This study is an attempt to specify for a particular campus the concept of faculty scholarship.

As a faculty member selected for study, you are being asked to provide your conceptions of faculty scholarship. Though you have undertaken advanced studies and may have served as a faculty member for many years, it is unlikely that you have given prolonged consideration to what faculty scholarship is. To assist you in formulating your thoughts on what your perception of scholarship might be, it may be useful to reflect upon UNCG faculty members you consider to be scholarly and to list what it is about these individuals that prompts you to think them scholarly. The researcher is requesting that you actually name those currently at UNCG whom you consider to be scholars; please be aware that you are eligible for listing as a current UNCG scholar. You will also have the opportunity to consider scholars not employed at UNCG. Please list three or four current UNCG scholars and below their names indicate what prompts you to consider them scholarly. Please be as complete in your listing of components, qualities, or attributes of faculty scholarship as you can. Note the coded number at the top of the form. **Please be advised that your responses will be confidential.**

CURRENT UNCG SCHOLARS

Scholar #1	Scholar #2	Scholar #3	Scholar #4

Now that you have considered current faculty scholars at UNCG, please consider individuals you consider scholars who are not members of the UNCG faculty. The idea here is to insure that the specification of scholarship is not limited by the present population of faculty employed at this university or your knowledge regarding them. Again, please be as complete in your listing of components, qualities, or attributes of faculty scholarship as you can.

CURRENT EXTERNAL SCHOLARS

Scholar #1 Scholar #2 Scholar #3 Scholar #4

In this final consideration of scholars, the researcher is requesting that you reflect on scholars from the past. You may consider scholars you have actually known in the past. It might be helpful to reflect upon individuals that may have influenced your conception of scholarship in the past. Such individuals might have been mentors, major faculty in graduate school, or others that influenced your professional development and current conception of scholarship. Again, please be as complete in your listing of components, qualities, or attributes of faculty scholarship as you can.

SCHOLARS FROM THE PAST

Scholar #1 Scholar #2 Scholar #3 Scholar #4

Appendix B

Stage One Pilot Study Instrument-
Form B

AN EXPLORATION OF FACULTY SCHOLARSHIP

The concept of faculty scholarship, though central to the role of academics, has never been well specified in the higher education literature. The literature displays great diversity in the definition, measurement, and evaluation of faculty scholarship. This study is an attempt to specify for a particular campus the concept of faculty scholarship.

As a faculty member selected for study, you are being asked to provide your conceptions of faculty scholarship. Though you have undertaken advanced studies and may have served as a faculty member for many years, it is unlikely that you have given prolonged consideration to what faculty scholarship is. To assist you in formulating your thoughts on what your perception of scholarship might be, it may be useful to reflect upon current UNCG faculty members you consider to be scholarly and to write a brief statement describing what it is about these individuals that prompts you to think them scholarly. The researcher is requesting that you actually name those currently at UNCG whom you consider to be scholars; please be aware that you are eligible for listing as a current UNCG scholar. You will also have the opportunity to consider scholars not currently employed at UNCG. Please name three or four current UNCG scholars and below their names indicate in a narrative form what prompts you to consider them scholarly. Please be as complete in your description of components, qualities, or attributes of faculty scholarship as you can. Note the coded number at the top of the form. **Please be advised that your responses will be confidential.**

Current UNCG Scholar #1

Current UNCG Scholar #2

Current UNCG Scholar #3

Current UNCG Scholar #4

Now that you have considered current faculty scholars at UNCG, please consider individuals you consider scholars who are not currently members of the UNCG faculty. The idea here is to insure that the specification of scholarship is not limited by the population of faculty currently employed at this university or your knowledge regarding them. Again, please be as complete in your written description of faculty scholarship as you can.

Current External Scholar #1

Current External Scholar #2

Current External Scholar #3

Current External Scholar #4

In this final consideration of scholars, the researcher is requesting that you reflect on scholars from the past. You may consider scholars you have actually known in the past. It might be helpful to reflect upon individuals that may have influenced the development of your conception of scholarship. Such individuals might have been mentors, major faculty in graduate school, or others that influenced your professional development and current conception of scholarship. Again, please be as complete in your listing of components, qualities, or attributes of faculty scholarship as you can.

Scholar From the Past #1

Scholar From the Past #2

Scholar From the Past #3

Scholar From the Past #4

Appendix C

Stage-One Data Collection Instrument

AN EXPLORATION OF FACULTY SCHOLARSHIP

The concept of faculty scholarship, though central to the role of an academic, has never been well specified in the higher education literature. The literature displays great diversity in the definition, measurement, and evaluation of faculty scholarship. This study is an attempt to examine and define, for a particular campus, the concept of faculty scholarship.

As a faculty member selected at random for this study, you are being asked to examine and report your conceptions of faculty scholarship. Though you have undertaken advanced studies and may have served as a faculty member for many years, it is unlikely that you have given prolonged consideration to the definition of faculty scholarship. To assist you in formulating your thoughts on what your perception of scholarship might be, it may be useful to reflect upon current UNCG faculty members you consider to be scholarly and to determine and describe what it is about these individuals that prompts you to think them scholarly. The researcher is requesting that you actually name individuals currently employed at UNCG whom you consider to be scholarly; please be aware that you are eligible for listing as a current UNCG scholar. You will also have the opportunity to consider scholars not currently employed at UNCG. Please name three current UNCG scholars, and below their names, indicate what prompts you to consider them scholarly. Please be as complete in your description of components, qualities, or attributes of faculty scholarship as you can. Note the coded number at the top of the form. **Please be advised that your responses will be confidential.**

To facilitate your participation in this study, you may use pens and pencils, typewriters, word processors, computers, or any other form of assistance. Your responses do not have to appear on this form; they may be submitted on other sheets of paper or media.

Current UNCG Scholar #1

Current UNCG Scholar #2

Current UNCG Scholar #3

Now that you have considered current faculty scholars at UNCG, please consider individuals you consider to be scholars who are not currently members of the UNCG faculty. The idea here is to ensure that the specification of scholarship is not limited by the population of faculty currently employed at this university or your knowledge regarding them. Again, please be as complete in your written description of their scholarship as you can. Please name each "external" scholar.

Current External Scholar #1

Current External Scholar #2

Current External Scholar #3

In a final consideration of scholars, the researcher is requesting that you reflect on scholars from the past. You may choose historic figures. You may also consider scholars you have actually known in the past. It might be helpful to reflect upon individuals that may have influenced the development of your conception of scholarship. Such individuals may have been mentors, major faculty in graduate school, or others that influenced your professional development and current conception of scholarship. Again, please be as complete in your description of the components, qualities, and attributes of their scholarship as you can. Please name each scholar.

Scholar From the Past #1

Scholar From the Past #2

Scholar From the Past #3

Appendix D

Review Procedures for Stage-One Data Collection

1. The investigator will ask participants to do some retrospective "thinking aloud" while their responses are reviewed. In this way, whether the tasks assigned are perceived as uniform or disparate might be discovered.

2. Participants will be asked to elaborate on entries with multiple or perhaps ambiguous meanings. For example, respondents will be uniformly requested to elaborate on entries such as "creative", "productive", or "committed" with a prompt such as, "What specifically do you mean by 'creative'?". In this way, attributes more descriptive of the participant's true conception of the essence of scholarship may be discovered.

3. After reviewing the responses for the third reference group, scholars of the past, faculty will be asked directly, "What factors or experiences do you think influenced the development of your conception of scholarship?".

4. Participants will be asked, "Are there further entries you would like to make on the basis of your reflections?" Further information regarding scholars listed who are not employed at UNCG will be sought to clarify the identity of the scholars, where they work, and what they do.

At this point, a series of uniform questions will be asked of all respondents to assess the viability of the procedures. Participants will be asked:

1. "How would you describe your level of interest in the study as a whole?"

2. "How would you describe your level of interest in the scholarship of each of the three reference groups used in the study?"

3. "How would you describe the level of difficulty of the tasks?"

Participants will be asked to report on the perceived usefulness of the data collected with the following questions:

1. a. "Do you think the information I have asked you to provide conveys the essence of <u>your</u> definition of faculty scholarship?

b. "Why or why not?".

2. "Did you encounter problems while attempting to complete the tasks?"

Appendix E

Validation of Attribute Reduction Instrument

AN EXPLORATION OF FACULTY SCHOLARSHIP AT UNCG

I am working on a research project designed to clarify the concept of faculty scholarship. My objective is to define faculty scholarship for one campus, UNCG. This is a complex topic, and that is why I need your help.

In Stage One of the study, I met with fifty faculty members representing a variety of academic departments to identify the components, attributes, and characteristics of faculty scholarship. An overwhelming response resulted in a list of over 400 attributes of faculty scholarship. The design of the study calls for a second stage of data collection in which all full-time faculty at UNCG will be asked to weight these attributes in relation to their importance to their conception of faculty scholarship. This list of over 400 attributes has to be distilled significantly to enable faculty to respond to the questionaire and to carefully attend to each attribute. So far, the original attributes have been carefully combined and reduced, following a set of rules.

The confidence with which the results of the study can be viewed as trustworthy and representative will rest in large part upon acceptable validation of the attribute reduction procedures that have been used. You have been selected to serve on a panel of judges that will be asked to decide whether the specified rules were appropriately applied during the reduction procedure. I need your thoughtful participation in this critical phase of my study.

The validation procedures consist of three components: review of attribute reductions; review of attributes nominated for elimination; and review of attributes that are considered unique. The first two sections will require careful consideration on your part. The final section is provided for information purposes only, and does not require you to make any judgments. Instructions preceed each section.

THANK YOU FOR YOUR THOUGHTFUL ASSISTANCE.

REVIEW OF ATTRIBUTE REDUCTION:

Please review the decision rules listed below. These are the rules that were employed during the attribute reduction procedures.

DECISION RULES:

A. Attributes and components of scholarship consisting of semantic equivalents but syntactic variants will be combined.

Example:

ORIGINAL ATTRIBUTES	TENTATIVE LABEL FOR GROUP
Commitment to excellence	Strives for excellence
Strives for excellence	
Seeks mastery	

B. Attributes and components of scholarship that can be subsumed by other statements will be combined.

Example:

ORIGINAL ATTRIBUTES	TENTATIVE LABEL FOR GROUP
Experienced professional performer	Experienced professional
Experienced professional dancer	in the arts
Experienced professional director	

The listing that follows presents groups of attributes and tentative labels that have been assigned to each group. The decision rules listed above guided the formation of each group and each tentative label. The letter(s) indicating the decision rule(s) applied appear(s) to the left of each original group of attributes. Your task has two components:

1. Judge whether or not the attributes presented within a group belong together. There is a set of columns labeled YES and NO. Mark the appropriate box to indicate your judgment as to the appropriateness of the grouping. If you mark NO (the grouping is not appropriate), please indicate which attribute(s) do(es) not belong within the group by circling the attribute(s) you want to exclude and write a brief rationale for your decision just to the right of the box that encloses the group.

2. Determine whether or not the tentative label assigned to each group of attributes is appropriate. Again, a set of boxes labeled YES and NO is provided. If you indicate NO (the label is not appropriate), please provide an alternative label and write a brief rationale just below the tentative label you want to replace.

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
B	Is a team worker Works well with groups			Works well with groups		
A,B	Has cooperative/collaborative approach Active collaborator Collaborates with others Seeks collaboration			Is an active collaborator		
B	Strives for consensus and cooperation Inspire others to more fully cooperate			Inspires others to more fully cooperate		
B	Achieves goals Set goals			Achieves goals		
B	Careful preparation of valuable class materials Class handouts were equivalent to texts			Carefully prepares valuable class materials		
B	Excellent liberal arts education Degrees from prestigious universities			Has a prestigious educational background		
A,B	Conducts seminars Conducts workshops			Conducts seminars or workshops		
B	Continual quest for new information or knowledge Constant reading to fill gaps in knowledge			Continually searches for new information or knowledge		
A,B	Keep current in the field Read in field/discipline constantly Study literature in the field			Keeps current with literature in field or discipline		
B	Can explain abstract ideas Communicate complex, abstract ideas effectively			Communicates complex, abstract ideas effectively		
A,B	Ability to communicate work to peers and public Communicate effectively with diverse groups			Communicates well with diverse groups		
A,B	Demonstrates effective application of practice Competent practitioner Informed practice			Demonstrates competent, informed practice		
A,B	Others cite work Work is cited by others Number of citations associated with publications			Work is cited by others		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
B	Experienced professional dancer Experienced professional performer Experienced professional director			Experienced professional in the arts		
B	Is considered a reliable source of information Empirical Backs statements with facts			Backs statements with facts		
A,B	Commitment to improvement of practice Committed to improvement of practice Committed to improvement in field for client population Influences practice of field or discipline			Is committed to improvement of practice		
A,B	Employment history with above average universities/programs Prestigious employment history in public sector			Has prestigious employment history		
A	Seek mastery Commitment to excellence Strive for excellence			Strives for excellence		
B	Work is reviewed nationally Work is reviewed internationally Work is reviewed regularly			Reviews of work have been published		
B	Work recognized and performed locally Work recognized and performed nationally Compositions widely performed Playscript produced			Work is recognized and performed by others		
B	Edit book Edit major work Edit collected papers			Edits publication(s)		
B	Co-edit book Co-edit collected papers			Co-edits publications(s)		
B	Co-author textbook Co-author articles Co-author playscript			Co-authors publication(s)		
B	Author playscript Playscript published			Has playscript(s) published		
B	Work exhibited internationally Work exhibited regularly			Has work exhibited		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
A,B	Contribute to or influence field through writing Publish quality work Publish important work Publish work recognized as significant to field Quality publications produced efficiently			Contributes to or influences field through publication(s)		
B	Broad interests across field/discipline Broad interests beyond specialty			Has broad interests		
B	Leader in the department Considered as a resource in the department Leader for faculty study group			Is a leader in the department		
B	Desire for discovery Spirit of inquiry Intellectual curiosity			Has spirit of inquiry or curiousity		
B	Broad generalized knowledge beyond chosen field Penetrating ability draws on wide knowledge, not specialization Depth and breadth of understanding Renaissance individual Erudite			Has broad generalized knowledge base		
B	Develop new program for public Provide service to external agencies Provide service to community			Provides service to community		
B	Contribute to institution Provide service to department or program Provide service to College or School Provide service to institution Active in faculty governance			Provides service within institution		
B	Active in service Committed to service Excellence in service Receives service award			Receives award for service		
B	Healthy skepticism Seeks Validation			Has a healthy sense of skepticism		
B	Administrative duties Directs program			Has current or past experience with administrative duties		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
B	Pioneer for oppressed women Pioneer for women			Is a pioneer for women		
B	Asked to share knowledge Asked to share expertise on television			Is asked to share knowledge or expertise		
B	Sharing of understanding to benefit others Make the world a better place			Shares understanding to benefit others		
A,B	Has aesthetic sensitivity Blends scientific and artistic attributes Combines aesthetics with analysis			Work exhibits aesthetic and analytic attributes		
B	Bring recognition to institution Bring recognition to School/College Bring recognition to academic program			Brings recognition to institution		
B	Write grant proposal Receive grant award Receive grant award from prestigious foundation or agency			Receives grant award		
A,B	Mastery of classical discipline Mastery of knowledge in field/discipline Mastery of literature in field Has broad generalized knowledge across chosen field or discipline Awareness of work of others			Has mastery of knowledge in field or discipline		
A,B	Active in state professional or discipline-based organization Active in national professional or discipline-based organization Active in international professional or discipline-based organization Active in regional professional or discipline-based organization Attends professional or discipline-based organizational meeting			Is active in professional or discipline-based organization(s)		
B	Active performer Perform nationally Perform internationally			Is an active performer		
B	Make works available for contemporary performers Make works available for contemporary musicians			Makes works available for contemporary performers		
A	Active artisan Continual production of art			Is active in production of art		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
A,B	Have and share vision of future of profession or discipline Expand the visions of the field or discipline Expand the definition of the field			Expands the vision of profession or discipline		
B	Ability to read foreign languages Ability to speak foreign languages Knowledge of ancient and modern languages			Has proficiency with foreign language(s)		
A	Open-minded, open to differing points of view Entertains a variety of views			Is open to differing points of view		
B	Generous in exchange of ideas and information Shares knowledge with others Shares craft with others			Is generous in sharing ideas and knowledge		
B	Ability to easily penetrate to the core of an idea Intellectual insight			Is intellectually insightful		
B	Synthesizes interests and experience with research topic Synthesize disparate material Ability to synthesize and relate phenomena Synthesizes broad base of knowledge with experience			Has ability to synthesize and relate phenomena		
B	Organized, structured Methodical Coherent, complete work plan			Is methodical		
A,B	Hard working, diligent Persistent, persevere			Is hard working, persistent		
A	Thorough in all endeavors, attentive to details Meticulous			Is thorough in all endeavors, attentive to details		
A	Rewards intrinsic Internally motivated			Is internally motivated		
B	Achieve balance across academic duties Achieve balance of performance and academic career			Achieves balance across academic activities		
A	Authoritative Expert in the field or discipline			Is expert in the field or discipline		
B	Generate ideas Generate foundational ideas			Generates valuable ideas		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
B	Give generous acknowledgment to collaborators Give generous acknowledgement to predecessors			Gives generous acknowledgement to the work of others		
A,B	International reputation or recognition National reputation or recognition Eminent Attract students from all over the country			Is eminent in field or discipline		
B	Originality of work Write original, creative work			Produces original, creative work		
B	Continual redefinition of excellence Rigorous reappraisal of intrinsic standards generated by research			Engages in regular reappraisal of personal academic standards		
B	Regarded as serious academic Serious about scholarship			Is regarded as a serious academic		
A,B	Work to stimulate students Inspire students and others to strive for excellence			Inspires students academically		
A,B	Teach students that scholarship is important Unobtrusive way of convincing students that scholarship is important			Convinces students that scholarship is important		
A	Link teaching and scholarship View teaching as a means towards scholarship			Integrates teaching and scholarship		
A,B	Multi or interdisciplinary thinker Work in more than one area Contribute to area other than specialty			Contributes to area other than specialty		
B	Follow own artistic/aesthetic personal vision Ability to know and follow own intuitive path			Follows own intuitive or visionary path		
B	Have defined research/writing program Set aside time for scholarly activity			Engages in structured program of scholarship		
B	Recognized as significant practitioner or performer in field Respected by colleagues or peers across field or discipline			Respected by colleagues or peers across field or discipline		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
B	Receive recognition from professional or discipline-based organization Receive recognition from prestigious honor society			Receives recognition from professional or discipline-focused organization		
B	Promote awareness in others Encourage thought and questions in others			Encourages thought and questions in others		
B	Search for solutions to problems in field or discipline Search for solutions to problems in practice Recognize problems in the field			Searches for solutions to problems in field or discipline		
B	Careful and relevant presentation of experience to students Successful and unforced inclusion of work into teaching			Relevant, unforced presentation of experience to students		
A	Scholarly work that grew out of teaching Research conducted for class lectures, then publication			Engages in scholarly work that grows out of teaching		
B	Mentor to many Model mentor			Is mentor to many		
B	Contribute to or influence field through teaching Long lasting positive impact on students			Has long lasting positive impact on students		
B	Care about students Respects students			Respects students		
B	Teach new course Develop new course Adaptability to new curricular needs			Develops and teaches new courses		
B	Careful course preparation Committed to teaching			Is committed to teaching		
B	Applies new knowledge to teaching Continual preparation of new course material Develop application of new knowledge to teaching			Keeps courses current with field or discipline		
B	Continual search for innovative approaches to teaching Apply new technology to teaching			Searches for innovative approaches to teaching		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
B	Equal effectiveness as teacher and writer Excellence in teaching and in practice or performance			Is effective in teaching and in application of talent or knowledge		
A,B	Includes students as researchers Scholarly interests include rather than rebuff students			Includes students in research		
B	Develops knowledge base for others Contributes to or influences field through research			Develops knowledge base for others		
B	Contribute to or influence field through activities Contribute to or influence field through service			Provides service to professional or discipline-focused organization		
B	Promote 'complete' education of students Committed to liberal education Committed to undergraduate concerns			Is committed to liberal education of students		
B	Willingness to learn from variety of people Recognizes new opportunity for learning Learns from mistakes			Utilizes opportunities for learning		
B	Searches for truth over glory Values knowledge Pure pursuit of knowledge for its own sake			Pursues knowledge for its own sake		
B	Develops research project Pursue research in the field Active in research			Engages in research		
B	Demonstrate understanding of complex problems Ability to demonstrate complex thesis logically Think divergently and convergently Analytical thinker Highly intelligent Excellent critical mind Logical Thinks cleary Reflective Integrates concepts			Demonstrates complex thinking skills		
B	Excellence in writing Ability to express ideas in written form			Communicates skillfully through writing		
B	Love for creative work Intrinsic valuing of creative process			Values engaging in creative work		

VALIDATION OF ATTRIBUTE REDUCTION PROCEDURES

RULE	ATTRIBUTE GROUP	YES	NO	TENTATIVE LABEL	YES	NO
B	At home in the world Multicultural approach to research Research interests facilitate cultural exploration Exhibits multicultural awareness and sensitivity			Exhibits multicultural awareness and sensitivity		
B	Ability to express ideas in conversation Excellent public speaker			Communicates skillfully through speaking		
B	Integrate personal voice with creative exploration Integrate personal voice with research			Integrates personal vision with research or creative exploration		
B	Devoted to area of study Committed to field of inquiry or area of study Devote lifetime to study of specialty Enthusiasm for area of interest			Is devoted to field of study		
B	Direct undergraduate research Direct graduate student research or dissertation			Directs students' research projects		
B	Provides rich experiences or internships for students Bring special speakers to campus			Provides rich experiences or internships for students		
B	Teaches importance of communication Teaches students succinctness, the value of each word			Teaches students the importance of communication		
A,B	Concern for development of others Seek to help others to develop Nurture others to potential Is interested in individual student development			Demonstrates concern for development of others		
B	Ethical across academic activities Is nonexploitative in research methods			Is ethical across academic activities		
B	Antithesis of egocentrism Has humility Is self-effacing			Exhibits humility		
B	Combines research interests with social concerns Has concern for social issues			Demonstrates concern for social issues		

REVIEW OF ATTRIBUTE DELETIONS:

This section involves your judgment regarding the deletion of a number of attributes. In Stage One of the data collection, participants were asked to describe various individuals they considered to be scholarly. Thus, descriptors of the idiosyncratic style or personality of individuals, rather than descriptors of their scholarly characteristics, may have inadvertently been introduced. Please review the attributes with reference to their appropriateness within the framework of the scholarly role of a faculty member from any discipline, not just your own.

Review the list of attributes recommended for deletion and indicate your judgment, YES or NO, in the boxes provided. Again, if you indicate NO (the item should not be deleted), please provide a brief rationale on the line to the right of the attribute.

VALIDATION OF ATTRIBUTE REDUCTION

ATTRIBUTE DELETE LIST	Delete Attribute? YES	NO	IF NO, PROVIDE RATIONALE
Authentic			
Avid reader			
Clarity of purpose			
Clarity of vision			
Commitment to work			
Committed to sense of duty			
Communicates across media			
Confident, self assured			
Conforming			
Confrontational teaching style forces students to think			
Conveys a strong moral presence			
Cosmopolitan viewpoint developed through travel			
Courage to be honestly critical			
Demonstrate integrity			
Diplomatic regarding work of others			
Generate insightful metaphors			
Good humor			
High energy level			
Humane			
Humanize abstract findings			
Improvisational			
Intrinsic valuing of life			
Keen observor			
Listen well			
Maturity			
Politically astute			
Praxis			
Professionally strategic			
Publish with prestigious publishing house			
Relate well with people			
Resourceful			
Respect and honor for individuals			
Retrospective			
Self-discipline			
Sensitive			
Skillful at networking			
Spontaneous			
Streetwise			
Suppress imagination in self and others			
Thinks a great deal			
Travels to further research			
Tremendous memory			
Understand social movements			
Uphold values			
Uses storytelling effectively to make points			
Value justice			
Witty			
Work hard with computer			
Work in quiet isolation			

REVIEW OF UNIQUE ATTRIBUTES:

Many components and attributes of faculty scholarship identified in Stage One of the study could not be combined with other attributes. These statements are referred to as unique attributes. So that you can understand the breadth and depth of the attributes that were identified during Stage One of the study, the complete list of unique attributes is provided in this section.

Look over these items only to obtain a general understanding of the scope of attributes that all faculty will see in Stage Two of the study.

Please review the complete list of unique attributes. They are presented alphabetically. Please note, they will not be presented in this order during Stage Two of the study.

If you have any comments concerning these unique attributes, please write them on the right-hand section of the last page.

REVIEW OF UNIQUE ATTRIBUTES

Able to activate students' memory and imagination	Fosters sense of professional community
Able to practice discipline in a variety of settings	Generous with time for students
Accepts and seeks professional scrutiny	Has a cretive teaching style
Allows time for insights to develop	Has a strong personal philosophy
Applies new knowledge to practical use	Has article(s) published
Applies new knowledge to the field or discipline	Has articulate expression of language
Applies new technology to field or discipline	Has broad experience in the field
Authors patent(s)	Has focused area of inquiry
Builds credibility of profession	Has genuine interest in the ideas of others
Builds upon the ideas of others	Has highly developed technical skills
Choreographs	Has insight into creative process
Communicates with colleagues in the field regularly	Has respect of colleagues/peers across campus
Composes across media	Has specialized knowledge
Conducts interesting investigations	Have book(s) published
Conducts master classes	Have chapter(s) published
Conducts research on major topics and individuals	Have conference proceeding(s) published
Conducts research regularly	Have monograph(s) published
Contributes to cross-campus academic programs	Have performances recorded
Contributes to or influences the field or discipline through translation	Have review(s) published
	Have technical report(s) published
Contributes to or influences the field or discipline through creative work	Have textbook(s) published
	Influence future generations of public through work
Contributes to technological applications in the field	Influences generations of members of professional community
Creative work challenges viewer	Inspires continued study by others
Demonstrates clinical expertise	Inspires new insights
Demonstrates craftsmanship	Interested in relationship between form and content
Demonstrates disciplined inquiry	Invents educational models
Demonstrates excellence in clinical instruction or supervision	Is a good colleague
	Is a member of a prestigious honor society
Demonstrates mastery of medium	Is a theatrical perfectionist
Demonstrates unity of person with philosophy and professional endeavors	Is acknowledged as pioneer in the field
	Is active in teaching
Develop collection of resource materials on subject area	Is committed to continued professional development
	Is committed to research
Develops innovative techniques	Is committed to writing
Develops inter-institutional or agency collaboration	Is concerned about educational issues
	Is considered a leader in the field
Develops theory	Is innovative in research design
Develops useful computer program	Is interested in everyday phenomena as worthy of research
Establishes relations with external agencies	Is ready to experience that which is new
Exhibits awareness of history	Is recognized as a literary or social critic
Exhibits broad competence	Is respected by colleagues and peers beyond the field or discipline
Exhibits creative ability within field or discipline	Is respected by students
	Makes convincing arguments
Exhibits enthusiasm for performance	Nominated to hold Endowed University chair
Exhibits excellence in research	
Exhibits excellence in teaching	
Exhibits intellectual imagination	
Exhibits intellectual rigor	
Exhibits intentionality of artistic design	
Experiments with new technology	

Appendix F

Stage-Two Pilot Study Instrument

AN EXPLORATION OF FACULTY SCHOLARSHIP

This questionnaire is being used in a survey designed to clarify the concept of Faculty Scholarship for a particular campus, the University of North Carolina at Greensboro. The survey consists of four sections:

Part A. **Current Activities**
This section includes questions regarding your experience in higher education, your current activities at UNCG, your participation in professional and discipline-focused organizations, and your professional service and consulting activities.

Part B. **Components and Attributes of Scholarship**
This section contains an inventory of attributes and components of scholarship. This listing is a distillation of the attributes proposed by 50 UNCG faculty members last semester in Stage One of the study. You are asked to weight each attribute in relation to its importance within your own conception of faculty scholarship, as that conception applies to faculty in your field or discipline.

Bear in mind that you are not necessarily weighting the importance of the attributes as they might be described in the UNCG Faculty Handbook or in other official University documents. You are weighting them in relation to your own conception of what is important within the scholarly role of a faculty member in your field or discipline.

Each of the attributes of scholarship has been assigned to one of the following four general categories: Faculty Members' Skills, Tools, and Techniques; Activities in which Faculty Engage; Faculty Members' Professional Characteristics and Orientations; and The Influence Faculty Have on Their Field and Others. The formulation of these categories and the assignment of attributes to categories was arbitrary. The weight you assign to each attribute should not be influenced by the category in which it appears. Consider each attribute separately and independently.

Part C. **The Pursuit of Your Highest Academic Degree**
This section refers to your perceptions of your experiences, mentoring you might have received, and the academic department and institution you attended while pursuing your highest degree.

Part D. **Current Perceptions and Influences on Scholarship**
This sections refers to your perception of various influences on faculty scholarship at individual, departmental, and institutional levels at UNCG.

Please feel free to add comments and clarifications anywhere on the questionnaire.

PART A. CURRENT ACTIVITIES LINK #

Time you BEGAN this questionnaire: _____

PLEASE ENTER YOUR RESPONSE TO EACH QUESTION IN THE SPACE PROVIDED TO THE RIGHT----------> RESPONSE

The following questions refer to your current activities at UNCG.

What is the academic level of the students you teach most semesters?
1= primarily undergraduate students
2= undergraduate and graduate students equally often
3= primarily graduate students _____

How many semester-credit-hours are you teaching this semester? _____

How many doctoral dissertation committees do you currently CHAIR? _____

On how many doctoral dissertation committees do you currently SERVE? _____

How many masters thesis committees do you currently CHAIR? _____

On how many masters thesis committees do you currently SERVE? _____

How many student independent study projects are you supervising this semester? _____

The following questions refer to your affiliations with professional or discipline-focused organizations.

Please indicate the NUMBER of current memberships and current offices you hold in professional or discipline-focused organizations in each of the categories listed below.

If you currently do not have a membership or hold an office in a given category, please enter the number ZERO.

	Number of Memberships	Number of Offices held
Local	_____	_____
State	_____	_____
Regional	_____	_____
National	_____	_____
International	_____	_____

The following questions refer to professional service or consultation you have provided to agencies or organizations outside the university.

Please indicate the NUMBER of agencies or parties to whom you have provided paid and unpaid professional service since January 1, 1987 (during the past two years).

If you have not provided professional service to agencies or parties in a given category during this time, please enter the number ZERO.

	NUMBER Paid	NUMBER Unpaid
Local	_____	_____
State	_____	_____
Regional	_____	_____
National	_____	_____
International	_____	_____

How many years (including this one) have you taught at the college level? _____

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

This section of the questionnaire contains an inventory of attributes and components of scholarship. This listing is a distillation of the attributes of scholarship proposed by 50 UNCG faculty members during Stage One of the study. **You are asked to weight each attribute in relation to its importance within your own conception of faculty scholarship, as that conception applies to faculty in your field or discipline.**

The attributes proposed by the participants in Stage One have been rather arbitrarily assigned to one of four broad categories: Faculty Members' Skills, Tools, and Techniques; Activities in which Faculty Engage; Faculty Members' Professional Characteristics and Orientations; and The Influence Faculty Have on Their Field and Others. The formulation of these categories and the assignment of attributes to categories was arbitrary. The weight you assign to each attribute should not be influenced by the category in which it appears. You are asked to weight each attribute separately and independently. Do not be concerned with the number of times you select any given weight.

Use the following scale to weight the importance of each attribute:

0 = No importance whatsoever
1 = Very Low Importance
2 = Low Importance
3 = Moderate Importance
4 = High Importance
5 = Very High Importance

In this way, attributes that have no bearing whatsoever in your conception of faculty scholarship should be assigned a weight of zero. You are asked to place the number of the weight you select in the box provided to the right of each attribute.

You are not necessarily weighting the importance of the attributes as they might be described in the UNCG Faculty Handbook or in other official University documents. **You are weighting them in relation to <u>your own</u> conception of what is important within the scholarly role of a faculty member in your field or discipline.**

Please assign a weight to every attribute that appears in the listing.

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

ACTIVITIES IN WHICH FACULTY ENGAGE

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:
0= No Importance Whatsoever
1= Very Low Importance
2= Low Importance
3= Moderate Importance
4= High Importance
5= Very High Importance

Place the number of the weight you assign to each attribute within the box provided.

Co-edits publication(s) ☐
Engages in structured program of scholarship ☐
Has article(s) published ☐
Keeps current with literature in field or discipline ☐
Includes students in research ☐
Conducts research regularly ☐
Bridges theory and practice ☐
Is a member of a prestigious honor society ☐
Preserves work(s) and knowledge from the past ☐
Keeps courses current with field or discipline ☐
Has playscript(s) published ☐
Co-authors publication(s) ☐
Teaches importance of patience in achieving goals ☐
Makes work(s) available for contemporary performers ☐
Conducts seminars or workshops ☐
Develops and teaches new courses ☐
Communicates with colleagues in the field or discipline regularly ☐
Engages in regular reappraisal of personal academic standards ☐
Publishes across subject areas ☐
Conducts interesting investigations ☐
Receives grant award ☐
Applies new knowledge to practical use ☐
Has textbook(s) published ☐
Convinces students that scholarship is important ☐
Teaches at graduate level ☐
Teaches through engagement of students ☐
Has work exhibited ☐
Publishes in refereed journals ☐
Edits publication(s) ☐
Has conference proceeding(s) published ☐
Serves on editorial board for journal ☐
Has monograph(s) published ☐

Has technical report(s) published ☐
Presents paper(s) at professional meetings ☐
Is an active collaborator ☐
Experiments with new technology ☐
Asked to share knowledge or expertise ☐
Is an active performer ☐
Searches for new information or knowledge ☐
Serves as editor of professional or disciplinary journal ☐
Is active in teaching ☐
Is active in professional or discipline-based organizations ☐
Has chapter(s) published ☐
Has book(s) published ☐
Publishes regularly ☐
Develops collection of resource materials on subject area ☐
Searches for solutions to problems in field or discipline ☐
Conducts master classes ☐
Participates in peer review ☐
Is active in production of art ☐
Publishes in quality journals ☐
Works to inspire teachers ☐
Applies new technology to field or discipline ☐
Authors patent(s) ☐
Searches for innovative approaches to teaching ☐
Has review(s) published ☐
Directs students' research projects ☐
Applies new knowledge to field or discipline ☐
Teaches students the importance of communication ☐
Works carefully on projects with students ☐
Achieves goals ☐
Has current or past experience with administrative duties ☐
Has performances recorded ☐
Engages in research ☐
Develops useful computer program ☐

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

FACULTY MEMBERS' PROFESSIONAL CHARACTERISTICS AND ORIENTATIONS

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:
0= No Importance Whatsoever
1= Very Low Importance
2= Low Importance
3= Moderate Importance
4= High Importance
5= Very High Importance

Place the number of the weight you assign to each attribute within the box provided.

Is committed to improvement of practice
Work exhibits aesthetic and analytic attributes
Is committed to liberal education of students
Integrates personal vision with research or creative exploration
Pursues research despite demanding methodology
Is intellectually insightful
Allows time for insights to develop
Quantity of work is impressive
Has spirit of inquiry or curiousity
Is committed to research
Has a focused area of inquiry
Integrates teaching with scholarship
Is committed to continued professional development
Is concerned about educational issues
Is committed to teaching
Encourages thought and questions in others
Is generous with time for students
Has a healthy sense of skepticism
Values engaging in creative work
Views scholarship as more than a competitive game
Works well with groups
Is a theatrical perfectionist
Exhibits intellectual imagination
Has prestigious educational background
Strives for excellence
Is nonpedantic
Is open to differing points of view
Gives generous acknowledgement to work of others
Teaches through example
Is hard working, persistent
Is methodical

Backs statements with facts
Exhibits intellectual rigor
Interested in relationship between form and content
Exhibits humility
Accepts and seeks professional scrutiny
Views scholarship as both process and product
Conducts research on major topics and individuals
Has interest in everyday phenomena as worthy of research
Selects research topics for interest over publications
Is thorough in all endeavors, attentive to details
Respects students
Is internally motivated
Is devoted to field of study
Demonstrates concern for development of others
Is ready to experience that which is new
Has prestigious employment history
Upholds rigorous standards
Is generous in sharing ideas and information
Has enthusiasm for performance
Is committed to writing
Has genuine interest in the ideas of others
Exhibits unity of person with philosophy and professional endeavors
Ethical across academic activities
Has a strong personal philosophy
Follows own intuitive or visionary path
Engages in scholarly work that grows out of teaching
Pursues knowledge for its own sake
Publishes prolifically

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

THE INFLUENCE FACULTY HAVE ON THEIR FIELD AND OTHERS

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:
0= No Importance Whatsoever
1= Very Low Importance
2= Low Importance
3= Moderate Importance
4= High Importance
5= Very High Importance

Place the number of the weight you assign to each attribute within the box provided.

Is respected by students
Receives teaching award
Provides service to professional or discipline-focused organization
Promotion, tenure, and merit awards reflect quality of effort
Has long lasting positive impact on students
Is respected by colleagues or peers across the campus
Establishes relations with external agencies
Contributes to or influences field through translation(s)
Contributes to area other than specialty
Contributes to or influences field through publication(s)
Provides service within institution
Provides expert witness or testimony
Receives service award
Provides service to community
Is regarded as a serious academic
Is a mentor to many
Is respected by colleagues or peers beyond the profession or discipline
Contributes to cross-campus academic programs
Is eminent in the field or discipline
Students find classes interesting
Provides broad contributions to the field or discipline
Develops knowledge base for others
Is a recognized literary and social critic
Develops theory
Builds credibility of profession
Work is cited by others
Inspires continued study by others
Is a leader in the department
Inspires others to more fully cooperate
Brings recognition to the institution
Reputable publication sources solicit work

Provides rich experiences or internships for students
Is a pioneer for women
Expands the vision of the profession or discipline
Provides leadership to professional or disciplinary organization
Influences generations of members of professional or disciplinary community
Review(s) of work are published
Is acknowledged as pioneer in field of inquiry
Receives recognition from professional or discipline focused organization
Provides professional services or consultation regularly
Influences future generations of public through work
Students find classes challenging
Invents educational models
Receives recognition for published work
Contributes to or influences field through creative work
Transmits enthusiasm about the field
Contributes to technological applications in the field
Is an expert in the field or discipline
Nominated to hold Endowed University chair
Develops inter-institutional or inter-agency collaboration
Is a good colleague
Is respected by colleagues or peers across the profession or discipline
Fosters a sense of professional community
Is considered a leader in the field or discipline
Widens knowledge base of the field
Inspires students academically
Work is recognized and performed by others
Inspires new insights

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

FACULTY MEMBERS' SKILLS, TOOLS, AND TECHNIQUES

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:
- **0= No Importance Whatsoever**
- **1= Very Low Importance**
- **2= Low Importance**
- **3= Moderate Importance**
- **4= High Importance**
- **5= Very High Importance**

Place the number of the weight you assign to each attribute within the box provided.

Utilizes opportunities for learning	☐	Has insight into creative process	☐
Develops innovative techniques	☐	Demonstrates relevant, unforced	
Exhibits awareness of history	☐	presentation of experience into teaching	☐
Provides creative and		Combines interests with problems	
insightful interpretations	☐	in field or discipline	☐
Is an experienced professional in the arts	☐	Exhibits multicultural	
Exhibits creative teaching style	☐	awareness and sensitivity	☐
Exhibits articulate expression of language	☐	Choreographs	☐
Demonstrates complex thinking skills	☐	Understands limitations of methodologies	☐
Has broad interests	☐	Searches for integration of	
Generates valuable ideas	☐	that which is known	☐
Demonstrates excellence in clinical		Creates scholarly artistic work	☐
instruction or supervision	☐	Produces original, creative work	☐
Has broad experience in the field	☐	Has specialized knowledge	☐
Is an outstanding performer	☐	Exhibits intentionality of artistic design	☐
Has a broad generalized knowledge base	☐	Exhibits broad competence	☐
Able to activate students'		Has mastery of knowledge in field or discipline	☐
memory and imagination	☐	Demonstrates competent, informed practice	☐
Has proficiency with foreign language(s)	☐	Demonstrates mastery of medium	☐
Builds upon the ideas of others	☐	Shares understanding to benefit others	☐
Demonstrates craftsmanship	☐	Communicates well with diverse groups	☐
Demonstrates concern for social issues	☐	Composes across media	☐
Creative work challenges viewer	☐	Communicates skillfully through speaking	☐
Demonstrates clinical expertise	☐	Is effective in teaching and in	
Achieves balance across academic activities	☐	application of talent or knowledge	☐
Exhibits excellence in teaching	☐	Communicates complex, abstract	
Communicates skillfully through writing	☐	content effectively	☐
Understands limits of own knowledge	☐	Is innovative in research design	☐
Exhibits excellence in research	☐	Practices discipline in a variety of settings	☐
Able to synthesize and relate phenomena	☐	Engages in disciplined inquiry	☐
Makes convincing arguments	☐	Has creative ability within field or discipline	☐
Understands objective and		Has highly developed technical skills	☐
subjective components of work	☐	Carefully prepares valuable class materials	☐

PART C. THE PURSUIT OF YOUR HIGHEST ACADEMIC DEGREE

PLEASE ENTER YOUR RESPONSE TO EACH QUESTION IN THE SPACE PROVIDED TO THE RIGHT **RESPONSE**

While pursuing your highest academic degree, did you attend your alma mater primarily full-time or part-time?
1= primarily full-time 2= primarily part-time ____

While pursuing your highest degree, how many mentors did you have?
Please indicate the number of mentors you had in the response blank; write 0 if none. ____

If you had no mentors while pursuing your highest degree, skip to the SECOND BOX

The following questions refer to the mentoring you received while pursuing your highest degree. Considering your PRIMARY MENTOR only:
Use the following scale to respond:
1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship was a personal PRIORITY for this individual? ___ PRIORITY

What is your perception of the level of scholarly PERFORMANCE of this individual at the time (s)he was your mentor? ___ PERFORMANCE

What is your perception of the INFLUENCE of this individual on the development of your current conception of scholarship? ___ INFLUENCE

The following questions pertain to your perceptions of the DEPARTMENT responsible for the degree program in which you earned your highest degree:
Use the following scale to respond:
1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship was a PRIORITY within that DEPARTMENT? ___ PRIORITY

What is your perception of the level of scholarly PERFORMANCE of faculty within that DEPARTMENT during your attendance? ___ PERFORMANCE

What is your perception of the INFLUENCE of that DEPARTMENT on the development of your current conception of scholarship? ___ INFLUENCE

The following questions pertain to your perceptions of the INSTITUTION from which you earned your highest degree:
Use the following scale to respond:
1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship was a PRIORITY at that INSTITUTION? ___ PRIORITY

What is your perception of the level of scholarly PERFORMANCE of faculty at that INSTITUTION during your attendance? ___ PERFORMANCE

What is your perception of the INFLUENCE of that INSTITUTION on the development of your current conception of scholarship? ___ INFLUENCE

PART D. CURRENT PERCEPTIONS AND INFLUENCES UPON YOUR SCHOLARSHIP

The following questions refer to your perceptions of your own scholarly performance and the influence of other individuals or groups upon it:

Use the following scale to respond:

1= Very Low 2= Low 3= Moderate 4= High 5= Very High

How would you describe your level of scholarly PERFORMANCE? ___ PERFORMANCE

What is your perception of the INFLUENCE of your closest faculty colleagues at UNCG on your scholarly performance? ___ INFLUENCE

What is your perception of the INFLUENCE of your ACADEMIC DEPARTMENT at UNCG on your scholarly performance? ___ INFLUENCE

What is your perception of the INFLUENCE of UNCG (the University as a whole) on your scholarly performance? ___ INFLUENCE

What is your perception of the INFLUENCE of your PROFESSION or DISCIPLINE on your scholarly performance? ___ INFLUENCE

The following questions refer to your academic DEPARTMENT within UNCG:

Use the following scale to respond:

1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship is a PRIORITY within your DEPARTMENT? ___ PRIORITY

What is your perception of the current level of scholarly PERFORMANCE of faculty within your DEPARTMENT? ___ PERFORMANCE

What is your perception of the current level of REWARD for scholarship within your DEPARTMENT? ___ REWARD

What is your perception of the current level of SUPPORT for scholarship within your DEPARTMENT? ___ SUPPORT

The following questions refer UNCG (the University as a whole):

Use the following scale to respond:

1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship is currently an institutional PRIORITY at UNCG? ___ PRIORITY

What is your perception of the current level of scholarly PERFORMANCE of faculty at UNCG? ___ PERFORMANCE

What is your perception of the current level of REWARD for scholarship at UNCG? ___ REWARD

What is your perception of the current level of SUPPORT for scholarship at UNCG? ___ SUPPORT

Time you finished this questionnaire: _____

Please estimate how long it took you to complete this questionnaire. _____

Thank you for your participation in this study. Please return your questionnaire via CAMPUS mail using the return address label and the envelope you received.

Ms. Donna Sundre

Appendix G

Review Procedures for Stage-Two
Pilot Study Data Collection

FACULTY SCHOLARSHIP QUESTIONNAIRE
REVIEW PROCEDURES

1. Can you tell me your general reaction(s) to the letter you received requesting your participation in the study?

a. Did the cover letter state the nature and purposes of the study clearly?

b. Did the cover letter indicate to you why the study is important?

c. Did the cover letter specify the sponsorship of the study?

d. Did the cover letter help you to understand how you were selected for participation?

e. Did the cover letter assure you of the confidentiality of your responses?

2. Did you complete and return the questionnaire?
If you did complete and return the questionnaire, did you complete it in one session?

If you did not complete and return the questionnaire, would you tell me why not?

3. How might the procedures and materials be improved to enhance participation?

a. Would you like to suggest changes in the follow-up procedures?

b. Would you like to suggest changes in the lay-out and design of the questionnaire?

4. For those who did complete and return the questionnaire.
I would like to ask you some questions about each section of the questionnaire that will help me to improve it.

Part A. Current Activities at UNCG

a. Were there any questions that appeared unclear or ambiguous to you?

b. Were there any questions you were hesitant to answer?

c. Can you think of additional information concerning your current activities at UNCG that you think might influence your judgments about faculty scholarship?

Part B. Components and Attributes of Scholarship

a. Were there any questions that appeared unclear or ambiguous to you?

b. Were there items that were difficult for you to respond to such that you are not confident about your responses?

c. As you completed the survey, or as you reflect upon it now, can you think of any attributes of faculty scholarship that may not have been listed on the questionnaire?

Part C. The Pursuit of Your Highest Degree

a. Were there any questions that appeared unclear or ambiguous to you?

b. Were there any questions you were hesitant to answer?

c. Can you think of additional information concerning the pursuit of your highest degree that you think might influence your judgments about faculty scholarship?

Part D. Current Perceptions and Influences on Scholarship

a. Were there any questions that appeared unclear or ambiguous to you?

b. Were there any questions you were hesitant to answer?

c. Can you think of additional information concerning your current perceptions and influences on scholarship that you think might influence your judgments about faculty scholarship?

5. How would you describe your level of interest in the study of faculty scholarship?

Appendix H

Stage-Two Data Collection Instrument

AN EXPLORATION OF FACULTY SCHOLARSHIP

This questionnaire is being used in a survey designed to clarify the concept of Faculty Scholarship for a particular campus, the University of North Carolina at Greensboro. The survey consists of four sections:

Part A. **Current Activities**
This section includes questions regarding your experience in higher education, your current activities at UNCG, your participation in professional and discipline-focused organizations, and your professional service and consulting activities.

Part B. **Components and Attributes of Scholarship**
This section contains an inventory of attributes and components of scholarship. This listing is a distillation of the attributes proposed by 50 UNCG faculty members last semester in Stage One of the study. You are asked to weight each attribute in relation to its importance within your own conception of faculty scholarship, as that conception applies to faculty in your field or discipline.

Part C. **The Pursuit of Your Highest Academic Degree**
This section refers to your perceptions of your experiences, mentoring you might have received, and the scholarly performance of the academic department and institution you attended while pursuing your highest degree.

Part D. **Current Perceptions and Influences on Scholarship**
This sections refers to your perception of various influences on faculty scholarship at individual, departmental, and institutional levels at UNCG.

Please feel free to add comments and clarifications anywhere on the questionnaire.

PART A. CURRENT ACTIVITIES LINK #

PLEASE ENTER YOUR RESPONSE TO EACH QUESTION IN THE SPACE PROVIDED TO THE RIGHT——————> RESPONSE

The following questions refer to your current activities at UNCG.

What is the academic level of the students you teach most semesters?
1= primarily undergraduate students
2= undergraduate and graduate students equally often
3= primarily graduate students _____

How many semester-credit-hours are you teaching this semester? _____

How many doctoral dissertation committees do you currently CHAIR? _____

On how many doctoral dissertation committees do you currently SERVE? _____

How many masters thesis committees do you currently CHAIR? _____

On how many masters thesis committees do you currently SERVE? _____

How many student independent study projects are you supervising this semester? _____

The following questions refer to your affiliations with professional or discipline-focused organizations.

Please indicate the NUMBER of current memberships and current offices you hold in professional or discipline-focused organizations in each of the categories listed below.

If you currently do not have a membership or hold an office in a given category, please enter the number ZERO.

	Number of Memberships	Number of Offices held
Local	_____	_____
State	_____	_____
Regional	_____	_____
National	_____	_____
International	_____	_____

The following questions refer to professional service or consultation you have provided to agencies or organizations outside the university.

Please indicate the NUMBER of agencies or parties to whom you have provided paid and unpaid professional service since January 1, 1987 (during the past two years).

If you have not provided professional service to agencies or parties in a given category during this time, please enter the number ZERO.

	NUMBER Paid	NUMBER Unpaid
Local	_____	_____
State	_____	_____
Regional	_____	_____
National	_____	_____
International	_____	_____

How many years (including this one) have you taught at the college level? _____

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

This section of the questionnaire contains an inventory of attributes and components of scholarship. This listing is a distillation of the attributes of scholarship proposed by 50 UNCG faculty members during Stage One of the study. **You are asked to weight each attribute in relation to its importance within your own conception of faculty scholarship, as that conception applies to faculty in your field or discipline.**

The attributes proposed by the participants in Stage One have been assigned to one of four broad categories: Faculty Members' Skills, Tools, and Techniques; Activities in which Faculty Engage; Faculty Members' Professional Characteristics and Orientations; and The Influence Faculty Have on Their Field and Others. The formulation of these categories and the assignment of attributes to categories was totally subjective. The weight you assign to each attribute should not be influenced by the category in which it appears. You are asked to weight each attribute separately and independently. Do not be concerned with the number of times you select any given weight.

Use the following scale to weight the importance of each attribute:

0 = No Importance Whatsoever or Irrelevant
1 = Very Low Importance
2 = Low Importance
3 = Moderate Importance
4 = High Importance
5 = Very High Importance

In this way, attributes that you consider irrelevant or that have no bearing whatsoever in your conception of faculty scholarship should be assigned a weight of zero. You are asked to place the number of the weight you select in the box provided to the right of each attribute.

You are not necessarily weighting the importance of the attributes as they might be described in the UNCG Faculty Handbook or in other official University documents. **You are weighting them in relation to <u>your own</u> conception of what is important within the scholarly role of a faculty member in your field or discipline.**

Please assign a weight to every attribute that appears in the listing.

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

ACTIVITIES IN WHICH FACULTY ENGAGE

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:

0= No importance Whatsoever or Irrelevant
1= Very Low Importance
2= Low Importance
3= Moderate Importance
4= High Importance
5= Very High Importance

Place the number of the weight you assign to each attribute within the box provided.

Co-edits publication(s) ☐
Engages in structured program of scholarship ☐
Has article(s) published ☐
Keeps current with literature in field or discipline ☐
Includes students in research ☐
Conducts research regularly ☐
Bridges theory and practice ☐
Is a member of a prestigious honor society ☐
Preserves work(s) and knowledge from the past ☐
Keeps courses current with field or discipline ☐
Has playscript(s) published ☐
Co-authors publication(s) ☐
Teaches importance of patience in achieving goals ☐
Makes work(s) available for contemporary performers ☐
Conducts seminars or workshops ☐
Develops and teaches new courses ☐
Communicates with colleagues in the field or discipline regularly ☐
Engages in regular reappraisal of personal academic standards ☐
Publishes across subject areas ☐
Conducts interesting investigations ☐
Receives grant award ☐
Applies new knowledge to practical use ☐
Has textbook(s) published ☐
Convinces students that scholarship is important ☐
Teaches at graduate level ☐
Teaches through engagement of students ☐
Has work exhibited ☐
Publishes in refereed journals ☐
Edits publication(s) ☐
Has conference proceeding(s) published ☐
Serves on editorial board for journal ☐
Has monograph(s) published ☐
Sets goals ☐

Has technical report(s) published ☐
Presents paper(s) at professional meetings ☐
Is an active collaborator ☐
Experiments with new technology ☐
Asked to share knowledge or expertise ☐
Is an active performer ☐
Searches for new information or knowledge ☐
Serves as editor of professional or disciplinary journal ☐
Is active in teaching ☐
Is active in professional or discipline-based organizations ☐
Has chapter(s) published ☐
Has book(s) published ☐
Publishes regularly ☐
Develops collection of resource materials on subject area ☐
Searches for solutions to problems in field or discipline ☐
Conducts master classes ☐
Participates in peer review ☐
Is active in production of art ☐
Publishes in quality journals ☐
Works to inspire teachers ☐
Applies new technology to field or discipline ☐
Authors patent(s) ☐
Searches for innovative approaches to teaching ☐
Has review(s) published ☐
Directs students' research projects ☐
Applies new knowledge to field or discipline ☐
Teaches students the importance of communication ☐
Works carefully on projects with students ☐
Achieves goals ☐
Has current or past experience with administrative duties ☐
Has performances recorded ☐
Engages in research ☐
Develops useful computer program ☐

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

FACULTY MEMBERS' PROFESSIONAL CHARACTERISTICS AND ORIENTATIONS

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:
0= No importance Whatsoever or Irrelevant
1= Very Low Importance
2= Low Importance
3= Moderate Importance
4= High Importance
5= Very High Importance

Place the number of the weight you assign to each attribute within the box provided.

Is committed to improvement of practice
Work combines aesthetic and analytic attributes
Is committed to liberal education of students
Integrates personal vision with research or creative exploration
Pursues research despite demanding methodology
Is intellectually insightful
Allows time for insights to develop
Quantity of work is impressive
Has spirit of inquiry or curiousity
Is committed to research
Has a focused area of inquiry
Integrates teaching with scholarship
Is committed to continued professional development
Is concerned about educational issues
Is committed to teaching
Encourages thought and questions in others
Is generous with time for students
Has a healthy sense of skepticism
Values engaging in creative work
Views scholarship as more than a competitive game
Works well with groups
Is a theatrical perfectionist
Exhibits intellectual imagination
Has prestigious educational background
Strives for excellence
Is nonpedantic
Is open to differing points of view
Gives generous acknowledgement to work of others
Teaches through example
Is hard working, persistent
Is methodical
Has clarity of purpose
Is committed to work
Conveys a strong moral presence
Upholds values

Backs statements with facts
Exhibits intellectual rigor
Interested in relationship between form and content
Exhibits humility
Accepts and seeks professional scrutiny
Views scholarship as both process and product
Conducts research on major topics and individuals
Has interest in everyday phenomena as worthy of research
Selects research topics for interest over publications
Is thorough in all endeavors, attentive to details
Respects students
Is internally motivated
Is devoted to field of study
Demonstrates concern for development of others
Is ready to experience that which is new
Has prestigious employment history
Upholds rigorous standards
Is generous in sharing ideas and information
Has enthusiasm for performance
Is committed to writing
Has genuine interest in the ideas of others
Exhibits unity of person with philosophy and professional endeavors
Is ethical in all academic activities
Has a strong personal philosophy
Follows own intuitive or visionary path
Engages in scholarly work that grows out of teaching
Pursues knowledge for its own sake
Publishes prolifically
Is considered a reliable source of information
Has courage to be honestly critical
Demonstrates integrity
Is self-disciplined

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

FACULTY MEMBERS' SKILLS, TOOLS, AND TECHNIQUES

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:

0= No importance Whatsoever or Irrelevant
1= Very Low Importance
2= Low Importance
3= Moderate Importance
4= High Importance
5= Very High Importance

Place the number of the weight you assign to each attribute within the box provided.

Utilizes opportunities for learning
Develops innovative techniques
Exhibits awareness of history
Provides creative and insightful interpretations
Is an experienced professional in the arts
Exhibits creative teaching style
Exhibits articulate expression of language
Demonstrates complex thinking skills
Has broad interests
Generates valuable ideas
Demonstrates excellence in clinical instruction or supervision
Has broad experience in the field
Is an outstanding performer
Has a broad generalized knowledge base
Able to activate students' memory and imagination
Has proficiency with foreign language(s)
Builds upon the ideas of others
Demonstrates craftsmanship
Demonstrates concern for social issues
Creative work challenges viewer
Demonstrates clinical expertise
Achieves balance across academic activities
Exhibits excellence in teaching
Communicates skillfully through writing
Understands limits of own knowledge
Exhibits excellence in research
Able to synthesize and relate phenomena
Makes convincing arguments
Understands objective and subjective components of work
Is a keen observor

Has insight into creative process
Demonstrates relevant, unforced presentation of experience into teaching
Combines interests with problems in field or discipline
Exhibits multicultural awareness and sensitivity
Choreographs
Understands limitations of methodologies
Searches for integration of that which is known
Creates scholarly artistic work
Produces original, creative work
Has specialized knowledge
Exhibits intentionality of artistic design
Exhibits broad competence
Has mastery of knowledge in field or discipline
Demonstrates competent, informed practice
Demonstrates mastery of medium
Shares understanding to benefit others
Communicates well with diverse groups
Composes across media
Communicates skillfully through speaking
Is excellent as a teacher and as a practitioner or performer
Communicates complex, abstract content effectively
Is innovative in research design
Practices discipline in a variety of settings
Engages in disciplined inquiry
Has creative ability within field or discipline
Has highly developed technical skills
Prepares valuable class materials

PART B. ATTRIBUTES OF FACULTY SCHOLARSHIP

THE INFLUENCE FACULTY HAVE ON THEIR FIELD AND OTHERS

Weight each attribute independently in relation to its importance within YOUR OWN conception of faculty scholarship, as that conception applies to faculty in your field or discipline. Do not be concerned about the number of times you use any scale value.

Use the following 0-5 scale to weight each attribute:

0= No importance Whatsoever or Irrelevant
1= Very Low Importance
2= Low Importance
3= Moderate Importance
4= High Importance
5= Very High Importance

Place the number of the weight you assign to each attribute within the box provided.

Is respected by students
Receives teaching award
Provides service to professional or discipline-focused organization
Promotion, tenure, and merit awards reflect quality of effort
Has long lasting positive impact on students
Is respected by colleagues or peers across the campus
Establishes relations with external agencies
Contributes to or influences field through translation(s)
Contributes to area other than specialty
Contributes to or influences field through publication(s)
Provides service within institution
Provides expert witness or testimony
Receives service award
Provides service to community
Is regarded as a serious academic
Is a mentor to many
Is respected by colleagues or peers beyond the profession or discipline
Contributes to cross-campus academic programs
Is eminent in the field or discipline
Students find classes interesting
Provides broad contributions to the field or discipline
Develops a recognized body of knowledge
Is a recognized literary and social critic
Develops theory
Builds credibility of profession
Work is cited by others
Inspires continued study by others
Is a leader in the department
Inspires others to more fully cooperate
Brings recognition to the institution
Reputable publication sources solicit work

Provides rich experiences or internships for students
Is a pioneer for women
Expands the vision of the profession or discipline
Provides leadership to professional or disciplinary organization
Influences generations of members of professional or disciplinary community
Review(s) of work are published
Is acknowledged as pioneer in field of inquiry
Receives recognition from professional or discipline focused organization
Provides professional services or consultation regularly
Influences future generations of public through work
Students find classes challenging
Invents educational models
Receives recognition for published work
Contributes to or influences field through creative work
Transmits enthusiasm about the field
Contributes to technological applications in the field
Is an expert in the field or discipline
Nominated to hold Endowed University chair
Develops inter-institutional or inter-agency collaboration
Is a good colleague
Is respected by colleagues or peers across the profession or discipline
Fosters a sense of professional community
Is considered a leader in the field or discipline
Widens knowledge base of the field
Inspires students academically
Work is recognized and performed by others
Inspires new insights
Has confrontational teaching style that forces students to think

PART C. THE PURSUIT OF YOUR HIGHEST ACADEMIC DEGREE

and

PART D. CURRENT PERCEPTIONS AND INFLUENCES ON SCHOLARSHIP

The fcllowing two pages contain Parts C and D of the questionnaire. These sections request information regarding your perceptions of the scholarly environment you experienced during your academic preparation, and your perceptions of the scholarly environment within your current academic setting. Literature in the field of higher education suggests that such factors might influence faculty members' development and their current conceptions of scholarship.

Part C. The Pursuit of Your Highest Academic Degree

This section refers to your perceptions of your experiences, mentoring you might have received, and the scholarly performance of the academic department and institution you attended while pursuing your highest degree.

Part D. Current Perceptions and Influences Upon Your Scholarship

This section of the questionnaire requests information regarding your perceptions of your own scholarship and the scholarly performance and influence of various individuals, your academic department, and UNCG (the University as a whole) upon your scholarship.

PART C. THE PURSUIT OF YOUR HIGHEST ACADEMIC DEGREE

PLEASE ENTER YOUR RESPONSE TO EACH QUESTION IN THE SPACE PROVIDED TO THE RIGHT **RESPONSE**

While pursuing your highest academic degree, did you attend your alma mater primarily full-time or part-time?
1= primarily full-time 2= primarily part-time _____

While pursuing your highest degree, how many mentors did you have?
Please indicate the number of mentors you had in the response blank; write 0 if none. _____

If you had no mentors while pursuing your highest degree, skip to the SECOND BOX

The following questions refer to the mentoring you received while pursuing your highest degree. Considering your PRIMARY MENTOR only:
Use the following scale to respond:
1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship was a personal PRIORITY for this individual? ___ PRIORITY

What is your perception of the level of scholarly PERFORMANCE of this individual at the time (s)he was your mentor? ___ PERFORMANCE

What is your perception of the INFLUENCE of this individual on the development of your current conception of scholarship? ___ INFLUENCE

The following questions pertain to your perceptions of the DEPARTMENT responsible for the degree program in which you earned your highest degree:
Use the following scale to respond:
1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship was a PRIORITY within that DEPARTMENT? ___ PRIORITY

What is your perception of the level of scholarly PERFORMANCE of faculty within that DEPARTMENT during your attendance? ___ PERFORMANCE

What is your perception of the INFLUENCE of that DEPARTMENT on the development of your current conception of scholarship? ___ INFLUENCE

The following questions pertain to your perceptions of the INSTITUTION from which you earned your highest degree:
Use the following scale to respond:
1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship was a PRIORITY at that INSTITUTION? ___ PRIORITY

What is your perception of the level of scholarly PERFORMANCE of faculty at that INSTITUTION during your attendance? ___ PERFORMANCE

What is your perception of the INFLUENCE of that INSTITUTION on the development of your current conception of scholarship? ___ INFLUENCE

PART D. CURRENT PERCEPTIONS AND INFLUENCES UPON YOUR SCHOLARSHIP

The following questions refer to your perceptions of your own scholarly performance and the influence of other individuals or groups upon it:

Use the following scale to respond:

1= Very Low 2= Low 3= Moderate 4= High 5= Very High

How would you describe your level of scholarly PERFORMANCE? ___ PERFORMANCE

What is your perception of the INFLUENCE of your closest faculty colleagues at UNCG on your scholarly performance? ___ INFLUENCE

What is your perception of the INFLUENCE of your ACADEMIC DEPARTMENT at UNCG on your scholarly performance? ___ INFLUENCE

What is your perception of the INFLUENCE of UNCG (the University as a whole) on your scholarly performance? ___ INFLUENCE

What is your perception of the INFLUENCE of your PROFESSION or DISCIPLINE on your scholarly performance? ___ INFLUENCE

The following questions refer to your academic DEPARTMENT within UNCG:

Use the following scale to respond:

1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship is a PRIORITY within your DEPARTMENT? ___ PRIORITY

What is your perception of the current level of scholarly PERFORMANCE of faculty within your DEPARTMENT? ___ PERFORMANCE

What is your perception of the current level of REWARD for scholarship within your DEPARTMENT? ___ REWARD

What is your perception of the current level of SUPPORT for scholarship within your DEPARTMENT? ___ SUPPORT

The following questions refer to UNCG (the University as a whole):

Use the following scale to respond:

1= Very Low 2= Low 3= Moderate 4= High 5= Very High

What is your perception of the extent to which engagement in scholarship is currently an institutional PRIORITY at UNCG? ___ PRIORITY

What is your perception of the current level of scholarly PERFORMANCE of faculty at UNCG? ___ PERFORMANCE

What is your perception of the current level of REWARD for scholarship at UNCG? ___ REWARD

What is your perception of the current level of SUPPORT for scholarship at UNCG? SUPPORT

Thank you for your participation in this study. Please return your questionnaire via CAMPUS mail using the return address label and the envelope you received.

Ms. Donna Sundre
School of Education, Curry Bldg. Campus

Appendix I

Inventory of Attributes of Faculty Scholarship

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Ability to activate student's memory and imagination	1	1	2
Ability to communicate work to peers and public	6	5	11
Ability to demonstrate complex thesis logically	1	2	3
Ability to express ideas in conversation	2	12	14
Ability to express ideas in written form	7	8	15
Ability to easily penetrate to the core of an idea	0	3	3
Ability to know and follow own intuitive path	0	4	4
Ability to practice discipline in a variety of settings	1	0	1
Ability to read foreign languages	3	4	7
Ability to speak foreign language	3	4	7
Ability to synthesize and relate phenomena	4	29	33
Accepts and seeks professional scrutiny	9	14	23
Achieves balance across academic duties	0	5	5
Achieves balance of performance and academic career	3	0	3
Achieves goals	12	3	15
Active as an artisan	0	1	1
Active as a collaborator	5	5	10
Active in faculty governance	1	0	1
Active in internat'l professional/disciplinary organizations	4	6	10
Active in national professional/disciplinary organizations	22	15	37
Active in regional professional/disciplinary organizations	6	4	10
Active in research	8	5	13
Active in service	9	1	10
Active in state professional organizations	4	3	7
Active in teaching	7	6	13
Active as a performer	8	0	8
Adaptability to new curricular needs	1	0	1
Administrative duties	4	7	11
Aesthetic sensitivity	2	0	2
Allows time for insights to develop	0	5	5
Analytical thinker	0	1	1
Antithesis of egocentrism	0	6	6
Applies new knowledge to field/discipline	0	4	4
Applies new knowledge to practical use	3	12	15
Applies new technology to field/discipline	3	2	5
Applies new technology to teaching	2	1	3
Articulate expression of language	21	27	48
Asked to share expertise on television	2	1	3
Asked to share knowledge	10	5	15
At home in the world	1	0	1
Attends professional meetings	9	2	11
Attracts students from all over the country	2	3	5
Authentic	0	1	1
Authoritative	4	19	23
Authors patent	0	1	1

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Authors playscript	0	2	2
Avid reader	3	7	10
Awareness of history	2	4	6
Awareness of other's work	2	4	6
Backs statements with facts	3	2	5
Blends scientific and artistic attributes	1	0	1
Bridges research and action/practice	0	7	7
Bridges theory and practice	12	10	22
Brings recognition to academic program	1	0	1
Bring recognition to institution	1	1	2
Brings recognition to School/College	1	0	1
Brings special speakers to campus	0	1	1
Broad competence	2	21	23
Broad contributions to field	4	16	20
Broad experience in the field	0	3	3
Broad generalized knowledge across chosen field/discipline	20	33	53
Broad generalized knowledge beyond field/discipline	27	47	74
Broad interests across field/discipline	2	9	11
Broad interests beyond specialty	13	20	33
Builds professional credibility	1	1	2
Builds upon the ideas of others	0	14	14
Can explain abstract ideas	1	1	2
Careful and relevant presentation of experience to students	1	2	3
Careful course preparation	1	2	3
Careful preparation of valuable class materials	1	0	1
Cares about students	1	5	6
Choreographs	0	3	3
Clarity of purpose	12	3	15
Clarity of vision	12	6	18
Class handouts were texts	1	0	1
Clinical expertise	1	0	1
Co-authors articles	0	5	5
Co-authors playscript	0	1	1
Co-author textbook	0	1	1
Co-edit book	2	3	5
Co-edit collected papers	1	0	1
Coherent, complete work plan	0	1	1
Collaborates with others	4	16	20
Combine aesthetics with analysis	2	2	4
Commitment to excellence	3	5	8
Commitment to improvement of practice	0	1	1
Commitment to work	1	1	2
Committed to continued professional development	2	13	15
Committed to field of inquiry/area of study	20	15	35
Committed to improvement in field for client population	1	0	1

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Committed to improvement of practice	0	2	2
Committed to liberal education	4	0	4
Committed to research	5	27	32
Committed to sense of duty	1	0	1
Committed to service	1	0	1
Committed to teaching	15	8	23
Committed to undergraduate concerns	2	0	2
Committed to writing	2	4	6
Communicate across media	0	2	2
Communicate complex, abstract content effectively	7	11	18
Communicates effectively with diverse groups	3	19	22
Communicates with colleagues in the field regularly	6	17	23
Competent practitioner	1	8	9
Compose across media	1	0	1
Compositions widely performed	1	0	1
Concern for development of others	0	1	1
Concern for social issues	2	5	7
Concerned about educational issues	1	2	3
Conduct interesting investigations	7	1	8
Conduct master classes	1	0	1
Conduct research regularly	8	11	19
Conduct seminars	0	1	1
Conduct workshops	2	1	3
Confident, Self assured	3	19	22
Conforming	1	0	1
Confrontational teaching style forces students to think	1	0	1
Consciousness of universality	0	1	1
Considered as a resource	0	7	7
Constant reading to fill gaps in knowledge	1	0	1
Consults regularly	1	8	9
Continual preparation of new course material	1	0	1
Continual production of art	0	1	1
Continual quest for new information/knowledge	7	24	31
Continual redefinition of excellence	0	2	2
Continual search for innovative approaches to teaching	4	3	7
Contribute to area other than specialty	2	1	3
Contribute to cross-campus academic programs	2	4	6
Contribute or influence field through activities	15	6	21
Contribute or influence field through creative work	0	7	7
Contribute or influence field through research	5	65	70
Contribute or influence field through service	0	14	14
Contribute or influence field through teaching	4	13	17
Contribute or influence field through translation	2	3	5
Contribute or influence field through writing	4	63	67
Contribute to institution	1	0	1

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Contribute to technological applications in the field	2	1	3
Convey a strong moral presence	1	4	5
Convincing arguments	1	2	3
Cooperative/collaborative approach	0	6	6
Cosmopolitan viewpoint developed through travel	1	0	1
Courage to be honestly critical	0	1	1
Craftsmanship	0	2	2
Creative ability within field/discipline	2	21	23
Creative teaching style	1	1	2
Creative work challenges viewer	0	2	2
Cultural awareness	1	4	5
Degrees from prestigious universities	0	1	1
Demonstrate effective application of practice	1	2	3
Demonstrate integrity	0	1	1
Demonstrate understanding of complex problems	1	0	1
Depth and breadth of understanding	12	4	16
Desire for discovery	5	14	19
Develop application of new knowledge to teaching	2	0	2
Develop collection of resource materials on subject area	4	0	4
Develop new course	3	4	7
Develop new program for public	1	1	2
Develop innovative techniques	2	2	4
Develop inter-institutional/agency collaboration	2	0	2
Develop knowledge base for others	2	8	10
Develop research project	1	2	3
Develop theory	3	14	17
Develop useful computer program	1	0	1
Devoted to area of study	7	12	19
Devote lifetime to study of specialty	6	10	16
Diplomatic regarding work of others	1	0	1
Direct graduate student research/dissertation	0	7	7
Direct program	2	3	5
Direct undergraduate research	0	2	2
Disciplined inquiry	5	12	17
Edit professional/disciplinary journal	2	9	11
Edit book	5	1	6
Edit collected papers	1	0	1
Edit major work	1	0	1
Editorial board for journal	2	3	5
Eminent	18	21	39
Empirical	1	2	3
Employment history at above average universities/programs	0	1	1
Encourage thought and questions in others	1	14	15
Entertains a variety of views	1	2	3
Enthusiasm for performance	1	1	2

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Enthusiasm for area of interest	9	17	26
Equal effectiveness as teacher and writer	1	2	3
Erudite	1	8	9
Establish relations with external agencies	1	1	2
Ethical	2	3	5
Excellence in clinical instruction/supervision	1	0	1
Excellence in research	0	11	11
Excellence in service	0	1	1
Excellence in teaching	17	27	44
Excellence in teaching & practice/performance	7	0	7
Excellence in writing	2	23	25
Excellent critical mind	1	0	1
Excellent liberal arts education	2	4	6
Excellent public speaker	6	5	11
Expand the definition of the field	0	2	2
Expand the visions of the field/discipline	3	28	31
Experienced professional dancer	0	1	1
Experienced professional director	0	1	1
Experienced professional performer	0	1	1
Experiment with new technology	1	0	1
Expert in discipline/field	12	30	42
Expert witness/testimony	2	0	2
Focused area of inquiry	5	22	27
Follow own artistic/aesthetic personal vision	0	3	3
Foster sense of professional community	1	6	7
Generate foundational ideas	0	8	8
Generate ideas	2	12	14
Generate insightful metaphors	0	1	1
Generous with time for students	2	2	4
Generous in exchange of ideas and information	0	24	24
Genuine interest in the ideas of others	0	3	3
Give generous acknowledgement to collaborators	0	1	1
Give generous acknowledgement to predecessors	0	6	6
Good colleague	7	20	27
Good humor	1	5	6
Hard working, diligent	20	16	36
Have and share vision of future of discipline/profession	1	12	13
Have defined research/writing program	0	3	3
Healthy skepticism	0	6	6
High energy level	12	0	12
Highly developed technical skills	0	11	11
Highly intelligent	17	12	29
Humane	0	2	2
Humanize abstract findings	0	1	1
Humility	0	8	8

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Imaginative intelligence	3	3	6
Improvisational	0	1	1
Includes students as researchers	2	8	10
Influence generations of members of professional community	0	28	28
Influence generations through work	0	4	4
Influence practice	0	3	3
Informed practice	2	0	2
Innovative in research design	0	12	12
Insight into creative process	3	4	7
Inspire continued study by others	6	17	23
Inspire new insights	0	12	12
Inspire others to more fully cooperate	9	2	11
Inspire students/others to strive for excellence	3	9	12
Integrate concepts	1	18	19
Integrate personal voice with creative exploration	0	2	2
Integrate personal voice with research	0	4	4
Intellectual curiousity	3	27	30
Intellectual insight	5	12	17
Intellectual rigor	1	8	9
Intentionality of artistic design	0	1	1
Interest in everyday phenomena as worthy of research	2	0	2
Interest in individual student development	5	4	9
Interest in relationship between form and content	0	1	1
Internally motivated	15	10	25
International reputation/recognition	0	2	2
Intrinsic valuing of creative process	0	2	2
Intrinsic valuing of life	0	1	1
Invent educational models	0	1	1
Keen observor	1	5	6
Keeps current in field	12	27	39
Knowledge of ancient and modern languages	1	0	1
Leader for faculty study group	1	0	1
Leader in the department	1	3	4
Leader in the field	0	31	31
Learn from mistakes	0	3	3
Link teaching with scholarship	0	10	10
Listen well	0	2	2
Logical	2	8	10
Long lasting positive impact on students	1	9	10
Love for creative work	0	1	1
Make the world a better place	0	1	1
Make works available for contemporary musicians	2	0	2
Make works available for contemporary performers	2	0	2
Mastery of classical discipline	2	3	5
Mastery of knowledge in field/discipline	12	3	15

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Mastery of literature in field	2	21	23
Mastery of medium	0	1	1
Maturity	9	0	9
Member of prestigious honor society	0	1	1
Mentor many	9	25	34
Methodical	3	12	15
Meticulous	4	10	14
Model mentor	6	29	35
Multicultural approach to research	0	1	1
Multi or interdisciplinary thinker	7	8	15
National recognition/reputation	0	3	3
Nominated to hold Excellence Professor chair	0	1	1
Nonexploitative methods in research	0	1	1
Nonpedantic	2	2	4
Number of citations associated with published work	0	1	1
Nurture others to potential	6	17	23
Officer/Chair for professional/disciplinary organization	9	6	15
Open-minded, open to differing points of view	14	11	25
Organized, structured	9	4	13
Originality of work	2	5	7
Outstanding performer	4	1	5
Participate in peer review	0	3	3
Penetrating ability draws on wide knowledge, not specialization	1	8	9
Performances recorded	2	0	2
Perform internationally	0	2	2
Perform nationally	2	1	3
Persistent, persevere	15	15	30
Pioneer for oppressed women	0	1	1
Pioneer for women	2	5	7
Pioneer in field	3	27	30
Playscript produced	0	2	2
Playscript published	0	2	2
Politically astute	3	1	4
Praxis	1	0	1
Present papers at professional meetings	10	26	36
Preserve works and knowledge from the past	8	0	8
Prestigious employment history in public sector	0	1	1
Professionally strategic	1	0	1
Prolific publisher	9	22	31
Promote awareness in others	0	3	3
Promote 'complete' education of students	2	1	3
Promotion, tenure, and merit awards reflect quality of effort	0	1	1
Provide creative and insightful interpretations	0	44	44
Provide rich experiences/internships for students	0	7	7
Provide service to community	2	1	3

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Provide service to department/program	2	12	14
Provide service to external agencies	1	6	7
Provide service to College/School	5	5	10
Provide service to institution	3	8	11
Published important work	17	26	43
Publish across subject areas	0	9	9
Publish articles	33	53	86
Publish book	22	42	64
Publish chapters	2	7	9
Publish conference proceedings	0	2	2
Publish in quality journals	0	10	10
Publish in refereed journals	0	3	3
Publish monograph	0	8	8
Publish quality work	12	31	43
Publish regularly	16	18	34
Publish reviews	2	1	3
Publish technical reports	0	2	2
Publish textbook	2	8	10
Publish with prestigious publishing house	0	1	1
Publish work recognized as significant to field	10	27	37
Pure pursuit of knowledge for its own sake	1	14	15
Pursue research in the field	0	7	7
Quality publications produced efficiently	0	1	1
Quantity of work impressive, vast quantity of work	11	11	22
Readiness to experience that which is new	1	2	3
Reads in field/discipline constantly	1	1	2
Receive grant award	3	4	7
Receive grant award from prestigious foundation/agency	0	1	1
Receive recognition for published work	0	2	2
Receive recognition from professional organization	0	6	6
Receive recognition from prestigious honor society	0	1	1
Receive service award	0	1	1
Receive teaching award	1	2	3
Recognize new opportunity for learning	3	8	11
Recognize problem in the field	2	8	10
Recognized as literary and social critic	2	1	3
Recognized as significant practitioner/performer in field	10	11	21
Reflective	1	2	3
Regarded as serious academic	2	0	2
Relate well with people	0	2	2
Reliable source	4	6	10
Renaissance individual	1	1	2
Research conducted for class lectures, then publication	2	0	2
Research interests facilitate cultural exploration	1	0	1
Research on major topics and individuals	8	8	16

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Resourceful	0	2	2
Respect and honor for individuals	0	1	1
Respected by colleagues/peers across campus	0	7	7
Respected by colleagues/peers across discipline	27	58	85
Respected by colleagues/peers beyond discipline	0	3	3
Respected by students	5	1	6
Respect students	4	1	5
Retrospective	1	0	1
Rewards intrinsic	1	4	5
Rigorous reappraisal of intrinsic standards generated by resea	0	2	2
Schedule time devoted for scholarly activity	0	1	1
Scholarly artistic work	0	1	1
Scholarly interests include rather than rebuff students	1	4	5
Scholarly work that grew out of teaching	2	0	2
Search for integration of that which is known	1	10	11
Search for solutions to problems in field/discipline	6	9	15
Search for solutions to problems in practice	2	2	4
Search for truth over glory	1	1	2
Seeks collaboration	2	0	2
Seeks mastery	1	2	3
Seek to help others to develop	13	1	14
Seek validation	1	2	3
Selection of research topic for interest over publications	1	0	1
Self-effacing	0	3	3
Self-discipline	5	3	8
Sense of universal synthesis	12	3	15
Sensitive	1	1	2
Serious about scholarship	1	1	2
Set goals	3	1	4
Share craft with others	1	2	3
Share knowledge with others	24	45	69
Sharing of understanding to benefit others	12	8	20
Skillful at networking	1	6	7
Specialized knowledge	4	27	31
Spirit of inquiry	9	21	30
Spontaneous	3	1	4
Streetwise	1	0	1
Strive for consensus and cooperation	12	2	14
Strive for excellence	16	9	25
Strong personal philosophy	0	3	3
Students find classes challenging	1	5	6
Students find classes interesting	2	1	3
Study literature in field	1	10	11
Successful and unforced inclusion of work into teaching	1	2	3
Supress imagination in self and others	1	0	1

ATTRIBUTES OF SCHOLARSHIP	PILOT TOTAL	MAIN TOTAL	GRAND TOTAL
Synthesize broad base of knowledge with experience	2	1	3
Synthesize disparate material	2	7	9
Synthesis of research interest with social concerns	4	7	11
Synthesis of interests and experience with research topic	5	2	7
Synthesis of interests with problems in the field	0	1	1
Teach importance of communication	1	1	2
Teach importance of patience in achieving goals	1	1	2
Teach students that scholarship is important	1	1	2
Teach students succintness, value of each word	1	0	1
Teach through engagement of students	1	3	4
Teach at graduate level	3	1	4
Teach new courses	2	0	2
Teach through example	11	10	21
Team worker	3	5	8
Theatrical perfectionist	0	1	1
Think a great deal	1	4	5
Think clearly	1	2	3
Think divergently and convergently	0	2	2
Thorough in all endeavors, attentive to details	5	14	19
Transmit enthusiasm for the field	0	2	2
Travels to further research	2	2	4
Tremendous memory	2	2	4
Understand limitations of methodologies	0	2	2
Understand limits of own knowledge	0	3	3
Understand objective/subjective components of work	0	1	1
Understand social movements	0	1	1
Unity of person with philosophy and professional endeavors	0	11	11
Unobtrusive way of convincing students scholarship is importa	1	0	1
Uphold rigorous standards	9	20	29
Uphold values	2	2	4
Use storytelling effectively to make points	2	1	3
Value justice	1	0	1
Value knowledge	1	13	14
View scholarship as both process and product	0	1	1
Views scholarship as more than a competitive game	1	0	1
View teaching as a means toward scholarship	2	0	2
Widen knowledge base of the field	0	10	10
Willingness to learn from variety of people	1	2	3
Willingness to pursue research despite demanding methodology	0	5	5
Witty	2	2	4
Work carefully on projects with students	5	7	12
Work cited by others	0	7	7
Work exhibited internationally	0	1	1
Work exhibited regularly	0	1	1
Work hard with computer	1	0	1

Appendix J

Summary Tables for Replicated, Significant Tests between Faculty Scholarship Dimensions and Role Theory Variables

I. Adult Professional Socialization Variables

Dependent Variable: Factor Two: Publication and Professional Recognition
Independent Variable: Level of Highest Degree Earned

Replicate One:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Doctorates	118	70.6	16.9	2.68*	43.09	.01
Masters & Below	33	59.5	22.0			

Replicate Two:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Doctorates	116	69.6	16.5	2.86*	48.2	.01
Masters & Below	36	58.6	21.8			

Dependent Variable: Factor Four: Creative and Artistic Attributes of Scholarship
Independent Variable: Level of Highest Degree Earned

Replicate One:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Doctorates	107	32.9	24.9	-2.26	136	.03
Masters & Below	31	44.8	28.9			

Replicate Two:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Doctorates	113	32.2	24.4	-2.52	145	.01
Masters & Below	34	44.1	23.7			

II. Variables Descriptive of Individuals

Dependent Variable: Factor Two: Publication and Professional Recognition
Independent Variable: Perceived Influence of Profession on Scholarship

Replicate One:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Low-Medium	66	64.7	19.3	-2.06	151	.04
High-Very High	87	70.8	17.5			

Replicate Two:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Low-Medium	64	63.5	16.7	-2.07	149	.04
High-Very High	87	69.7	19.5			

Dependent Variable: Factor Three: Intellectual Characteristics of Scholars
Independent Variable: Perceived Influence of Profession on Scholarship

Replicate One:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Low-Medium	62	79.8	11.4	-2.43	142	.02
High-Very High	82	84.5	11.4			

Replicate Two:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Low-Medium	66	77.9	12.4	-2.78	148	.01
High-Very High	84	83.1	10.6			

II. Variables Descriptive of Individuals (Continued)

Dependent Variable: Factor Two: Publication and Professional Recognition
Independent Variable: Tenure-Track Status

Replicate One:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Not-Tenure-Track	27	59.5	23.7	-2.20*	32.0	.04
Tenured or On-Track	124	70.1	16.9			

Replicate Two:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Not-Tenure-Track	26	57.1	24.6	-2.43*	29.6	.02
Tenured or On-Track	127	69.3	16.2			

Dependent Variable: Factor Two: Publication and Professional Recognition
Independent Variable: Administrative Function

Replicate One:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Not Administrator	138	66.6	18.6	-4.62*	26.5	.00
Administrator	16	81.2	10.9			

Replicate Two:

Groups:	N	Mean	St. Dev.	T-Value	df	p
Not Administrator	138	66.2	18.9	-2.76*	26.8	.01
Administrator	16	75.0	10.9			
