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A Comparison of Two Theories of Resistance to Innovation in Medical Record Administration Baccalaureate Degree Programs

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DEDICATION

To my husband, Albert L. Harvey, for his steadfast love and encouragement.

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ABSTRACT

A COMPARISON OF TWO THEORIES OF RESISTANCE TO INNOVATION IN MEDICAL RECORD ADMINISTRATION BACCALAUREATE DEGREE PROGRAMS

Joyce Brown Harvey
Old Dominion University, 1992
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Resistance to innovation is a major obstacle to the successful implementation of planned change in colleges and universities. The purpose of this study was to compare two explanations of resistance to innovation to determine which one best explains the variance in receptivity and proposed innovations among faculty members in medical record administration programs. One explanation holds that organizational members' receptivity to change is a function of their personalities. The second explanation holds that members respond to specific innovations and that they do so in terms of whether the innovation would increase or reduce their present status.

The faculty of baccalaureate degree programs were queried to measure their receptivity to computer-assisted instruction and televised courses. The data was collected using four semantic differential scales, the short form of Rokeach's Dogmatism Scale (1965), the Trumbo Work-Related Change Scale (1961) and the Dye Local-Cosmopolitan Scale (1963).

The findings revealed that status variables accounted for the greatest variance in receptivity for each innovation. Significant relationships between

selected status variables and receptivity to each innovation were found. However, no relationships were found between the personality variables and receptivity to the innovations. A negative relationship was found between threat to job perquisites and level perceived risk for each innovation. A positive relationship was found between perceived risk from each innovation and receptivity to that innovation.

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Chapter 1

INTRODUCTION

The issue of faculty receptivity to proposed innovations in colleges and universities is a perennial challenge in higher education. The success of planned innovations depend on faculty interest and participation.

Many studies have been conducted to analyze the beliefs, attitudes and values of university faculty; however little research has been done to objectively study the problem of faculty resistance to innovation (Evans, 1967). Since Evans' research on faculty resistance to innovation which was conducted in 1967, very little additional research has been done to further understand this phenomenon. The allied health programs are under close scrutiny because they are cost-intensive programs. Many of these programs such as the medical record administration programs have been phased out because they have failed to effectively present their curricula in a cost-effective manner. In order for the remaining programs to survive, they will have to become more innovative. Therefore, it is imperative that further study of faculty resistance to innovation be done.

In the past, some confusion over the meaning of the word resistance (or receptivity) has existed. There are those who use the term resistance interchangeably with that of lack of receptivity, while others restrict resistance to overt behavioral acts. Receptivity refers to how people are oriented internally toward proposed innovations and not how they behave in

relation to those innovations (Kazlow, 1974).

Two explanations of resistance to innovation have been offered. According to Kazlow (1974), one explanation is psychologically based and holds that organizational members' receptivity to change is a function of their personalities. Personalities are viewed as internal systems including elements such as attitudes, motives, values, needs and habits - that predispose people to relate in a consistent fashion to the environment. This explanation proposes that members are innovative by virtue of their personalities (Kazlow, 1974).

Three personality factors have been addressed by researchers. One of the personality factors is an individual's degree of dogmatism. According to Rokeach (1960), dogmatism is the way a person believes or thinks. A high level of dogmatism signifies a closed belief system while a low level of dogmatism suggests an open belief system. The basic hypothesis is that the less dogmatic or open-minded a person is, the more receptive he will be towards innovation. The second factor of concern is the attitude one has toward general work-related change. The assumption is that the more positive the attitude toward change, the greater the receptivity to innovation. The third factor examined is one's local or cosmopolitan orientation. Local cosmopolitan orientation is the range of social environment in which the individual sees himself (Dye, 1963; Herr, 1984). According to Dye (1963), locals view themselves primarily as members of

the local community, while cosmopolitans see themselves as part of a larger society.

The second explanation is basically sociological. The explanation holds that persons occupy both formal and informal organizational statuses and that overlapping these are other formal and informal statuses, which they occupy but which are external to the organizational settings in question (Kazlow, 1974). It further holds that members respond to specific innovations and that they do so in terms of whether the innovation would bolster or present uncertainties and risks to the perquisites accorded to them in their present statuses (Kazlow, 1974). Giacquinta (1975a) offered two premises of the status-risk theory: (1) all innovations contain different degrees of potential benefits, risks and uncertainties for organizations; and (2) receptivity to an innovation is a function of the extent to which he perceived risk. The introduction of an innovation places organizational members into a threatening situation in which they become involved with assessments of the risks they are taking on their perquisites should the innovation be carried out (Giacquinta, 1975b).

The intent of this study was to compare these two explanations to determine which one best explains the variance in receptivity to proposed innovations among faculty members in the medical record administration programs. The results of this study will assist the educational change agents in predicting possible areas of faculty resistance. Such predictions

will then guide the change agents in their planning efforts as to facilitate receptivity to the planned innovation.

Problem Statement

The last decade has brought a significant change in the student clientele of higher education. This new student clientele is forcing colleges and universities to restructure their educational programs and the medical record administration programs have not been exempted from this pressure for change. However, these programs have been recalcitrant in redesigning both their curricula and the delivery of their curricula. Hence, there is a need to examine theoretical explanations of medical record administration faculty resistance to innovation. The purpose of this study, then, is to identify significant factors related to medical record administration faculty resistance to innovation.

Assumptions

The following assumptions were made:

1. Receptivity to change in medical record administration would be desirable and necessary for the improvement of the educational programs (Herr, 1986).

2. All innovations contain varying degrees of possible benefits, risks and uncertainties for medical record administration faculty (Herr, 1986).

3. Introduction of specific innovations will generally involve more risk for some medical record administration faculty than others (Herr, 1986).

4. Medical record administration faculty will make sincere efforts to provide valid and studied responses when completing the questionnaire used in this study to measure receptivity to innovation, perceived risk, threat to perquisites and personality and status variability (Herr, 1986).

Limitations

The following limitations of this study were recognized:

1. The size of the population of medical record administration faculty is small.

2. The faculty was identified using directories of the selected professions.

3. The measurement tool requires self-reporting of attitudes.

Delimitations

The following delimitations were recognized:

1. The researcher selected one specialty - medical record administration.

2. The researcher requested the Program Directors of each medical record administration program to distribute the questionnaire to the medical record administration faculty.

Definition of Terms

Change: Change is the modification of, deletion of, or addition to attitudes and behaviors existing in a person, group, organization or larger system (Lindquist 1978, p. 1; Herr, 1986).

Change Orientation: Change orientation is defined as an individual's predisposition or attitude toward change (Russell & Warmbrod 1977, p. 50). For this study, general attitude toward work-related change will be operationalized with Trumbo's Work-Related Change Scale (1961) (Herr, 1986).

Computer-Assisted Instruction: Computer-assisted instruction (CAI) is defined as the use of the computer for direct instruction of students via drill and practice, problem-solving, tutorial or simulation techniques (Herr, 1986).

Dogmatism: Dogmatism is the way a person believes or thinks-- not only about single issues, but also about networks of issues. A **high level of dogmatism** indicates a closed belief system, a closed way of thinking associated with any ideology regardless of content; an authoritarian outlook on life; an intolerance toward those with opposing beliefs and a sufferance of those with similar beliefs. A **low level of dogmatism** indicates an open belief system, an open way of thinking which could be associated with any ideology regardless of content; a non-authoritarian outlook on life; and a tolerance toward those with opposing beliefs (Rokeach 1960, p. 71).

Dogmatism will be operationalized with the Short Form of the Rokeach Dogmatism Scale (Troldahl & Powell 1965); (Herr, 1986).

Formal organization: A formal organization is a rationally contrived, deliberately designed, goal-oriented social arrangement that organizes individuals in a formal, hierarchically arranged authority structure. The structure links members to one another as occupants of statuses (positions) in order to facilitate the achievement of goals (Gross, Giacquinta & Bernstein 1971, p. 15) (Herr, 1986).

Innovation: An innovation is an idea, object or practice perceived as new by an individual or individuals, which is intended to bring about improvement in relation to desired objectives, which is fundamental in nature and which is planned and deliberate (Nicholis 1983, p. 4). The idea, object or practice is new to the potential user but not necessarily new in the world outside that person, group or organization (Herr, 1986). For the purpose of this study, innovations include computer-assisted instruction, televised courses, and computers into the curriculum.

Local-Cosmopolitanism Orientation: Local-cosmopolitan orientation is the range of social environment in which the individual sees himself (Dye 1963). Cosmopoliteness is the degree to which an individual's orientation is external to a particular organization or social system (Miles 1964). Locals have limited social experience and view themselves primarily as members of the local community, while cosmopolitans have a broader frame of reference

and are more aware of their relationships to larger social organizations (Dye 1963). Local-Cosmopolitanism will be operationalized with the Dye Local-Cosmopolitan Scale (1963), (Herr, 1986).

Perquisites: Perquisites refers to benefits linked to statuses. In a formal organization they may take the form of amount of salary, prestige, fringe benefits, informal power, and so forth. They vary according to the specific status (Giacquinta 1975b, p. 105); (Herr, 1986).

Personality: Personality refers to the dynamic organization within the individual of those habits, specific and general attitudes, sentiments and traits that determine his unique adjustments to his environment (Allport 1960, p. 48). These patterns are enduring dimensions of individual differences on which he or she can be measured (Byrne 1974, p. 226); (Herr, 1986).

Resistance: Resistance is an internal orientation or feeling referring to the negative evaluations and feelings an individual has about an innovation. It's opposite, receptivity, refers to the positive evaluations and feelings an individual has about an innovation (Kazlow 1974, p. 6); (Herr, 1986).

Risk: Risk is the perceived chances of loss of an organizational member faces when an innovation is introduced or implemented. Perceived risk is the extent to which a member believes that benefits or losses will accrue (Kazlow 1974, p. 7). It connotes incomplete predictability of consequences (Giacquinta 1975a, p. 5). An organizational member may feel

risk to his job, salary, rank or other formal status. Risk is also perceived in relation to the member's autonomy, professional role, area of expertise, power and a myriad of other concerns (Herr, 1986).

Status: Status is a position in the social system involving reciprocal expectations of action with respect to occupants of other positions in the same structure (Gould & Kolb 1964, p. 692). In this study status will refer to both formally held status (e.g. professor vs. instructor) and personal status variables (e.g. male vs. female or young vs. old) (Herr, 1986).

Televised courses: Courses offered via the television or other telecommunication devices.

Chapter 2

REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to discuss the literature that is germane to this study. This chapter will include the following: an overview of research directed toward faculty resistance; a presentation of the personality and status-risk explanations of resistance; and a summary of the literature.

Faculty Receptivity

Faculty response to proposed innovation in colleges and universities is a perpetual issue in higher education. The literature has consistently depicted faculty members as conservative resistors of change. According to Johnson (1984), such characteristics have not generally been supported by empirical data, and their authors have seldom attempted to analyze faculty attitudes in relation to theories of innovation, organizational behavior; or professional culture.

Evans (1967) surveyed faculty attitudes toward instructional television. He found that most respondents were either apathetic or hostile

toward that medium of teaching. Patton (1975) interviewed the University of California faculty members regarding California's Extended University. His interview disclosed little opposition to the activity (Johnson, 1984). In another study completed by Medsker (1975), faculty from 18 special degree programs of several universities across the country were interviewed. Medsker (1975) tabulated reasons for faculty participation, such as general support for the concept of extended education; as well as obstacles to participation, such as general opposition to the concept or uninformed apathy. Medsker (1975) noted that participating faculty tended to be positive toward change and that skepticism tended to decrease with experience (Johnson, 1984).

Additional research has shown similar mixed results. Stetson (1979) completed a study with University Without Walls (UWW) faculty at seven institutions. These participants, which included mostly senior faculty, provided high evaluations of the academic quality of the UWW Program (Johnson, 1984). However, Flanagan (1976) noted less support for nontraditional programs among tenured faculty at two institutions but the opposite tendency at a third (Johnson, 1984).

Both advantages and disadvantages in external degree involvement were cited by faculty in Harder's study (1981), and Nolan, Anderson, and Mowrer (1977) found faculty were generally supportive of the external degree but skeptical about rewards for participation (Johnson, 1984). In a

study conducted by Ice (1976), most of the faculty respondents in six New Jersey State colleges favored a number of nontraditional approaches. According to Johnson (1984), faculty response varied on items most applicable to the external degree. Although they supported weekend, off-campus and part-time study, the majority of the faculty had reservations about the use of videotapes, correspondence courses, television, and extensive independent study in graduate education.

Johnson (1984) also conducted a study on faculty receptivity to the external degree. The study was based on responses of 418 faculty members at the University of Michigan-Ann Arbor. Johnson reported an overall pattern of favorable reactions on the part of the Michigan faculty.

Assumptions about faculty resistance to specific change have not been supported with data. Faculty resistance to change has often been treated as simply a self-evident truth (Johnson, 1984). The studies reviewed above provide evidence that such is not the case.

Explanations of Resistance to Innovation

There are two explanations of resistance to innovation. According to Kazlow (1977), one is psychologically based and asserts that organizational members' receptivity to change is a function of their personalities. Personalities are viewed as internal systems - including elements such as attitudes, motives, values, needs and habits - that predispose people to

relate in a consistent fashion to the environment. This explanation suggests that organizational members are innovative by virtue of their personalities. For example, Rogers (1962) identified personality variables which are useful in distinguishing among innovators, laggards and other adapter categories (Herr, 1986). An innovator is one who is venturesome, eager to try new ideas and maintains cosmopolite social relationships. Contrastingly, a laggard is one who is the last to adopt an innovation, whose point of reference is the past and maintains localite social relationships (Rogers, 1962). According to Kazlow (1977), some researchers have developed scales purporting to measure the characteristic of innovativeness. Kazlow (1977) holds that some of these scales deal with this disposition to change on a broad basis, while others concentrate on one's personal orientation toward change in specific areas or on the change attitudes of people in specific occupations. Other researchers have devised scales purporting to measure personality characteristics, like dogmatism (Rokeach, 1960), which have been related, in turn, to the change orientations that people have (Kazlow, 1977).

The second explanation of receptivity is basically sociological. It holds that persons occupy both formal and informal organizational stations and that overlapping these are other formal and informal stations, which they occupy but which are external to the organizational settings in question (Kazlow, 1977). An example of the four kinds of stations would be a

secretary at a university, a woman who is also a national officer of a political group and a mother of three (Kazlow, 1977). A series of perquisites are linked to each status. Examples of these perquisites are prestige, money, influence, and mental as well as physical gratification (Kazlow, 1977). This explanation further holds that members respond to specific innovations, not innovation in general, and that they do so in terms of whether the innovation would support or offer uncertainties and risks to the perquisites accruing to them in their present statuses (Kazlow, 1977). Hence, the members' receptivity to change depends on whether the innovation is perceived as advancing their prestige, money, influence, or as threatening the perquisites they possess, especially those attached to their organizational statuses. The greater the risks and uncertainties they perceive, the lower their receptivity (Kazlow, 1977).

According to Kazlow (1977), prior research has not revealed the relative strengths of each of the two explanations in accounting for organizational members' responses to the same innovation. Hence, Kazlow conducted a study to determine to what extent does the personality or the status-risk theory provide a better explanation of faculty receptivity. Kazlow (1977) reasoned that if the status-risk explanation was fundamental to faculty receptivity, then subsequent statistical analysis should reveal: (1) that status characteristics of faculty members would be related to their receptivity; and (2) that these status characteristics would not be equally

important in explaining faculty receptivity to each innovation in the array. However, Kazlow (1977) reasoned that if the personality explanation was more fundamental to the understanding of receptivity, the following would be true: (1) for each innovation, significant correlations between receptivity score and measures of personality would emerge; (2) that personality factors would account for a greater proportion of the explained variance in receptivity than would status characteristics; and (3) that the intercorrelations of members' receptivity scores across the innovations would be consistent and strong.

Kazlow's (1977) statistical analyses confirmed this reasoning. The regression analyses disclosed important relations between receptivity and various internal and external status characteristics, while the personality factors entered only two of the regression analyses. In all of the analyses, the characteristics accounting for most of the explained variance were status variables, not personality variables. The most important aspect of status was different for each innovation. Finally, there were weak or no correlations among faculty receptivity scores across the four innovations (Kazlow, 1977). Based on these findings, Kazlow (1977) concluded that receptivity to proposed organizational change is innovation-specific, a function of organization members' status characteristics, and a function of the risks they perceive as a result of their status occupancy is a more viable explanation.

Several years later, another study was completed in which the personality and status-risk explanations were analyzed. Herr (1986) examined the strength of these explanations while studying nursing faculty resistance to innovation. In accordance with Kazlow's findings, Herr (1986) also concluded that receptivity to innovation is innovation-specific and a function of status characteristics and the risks perceived as a result of their status occupancy.

Personality Explanations

Researchers have directed significant attention to three personality factors. One such factor is dogmatism with the basic assertion being that the more dogmatic or close-minded a person is, the more resistant he will be towards innovations (Apel, 1966; Lin, Leu, Rogers, & Schwartz, 1966; Rogers & Shoemaker, 1971; Herr, 1986). The second factor of interest is the attitude people have toward general work-related change. The assumption here is that the less positive the attitude toward such change, the greater the resistance to innovation (Herr, 1986; Trumbo, 1961). The third factor investigated is one's local or cosmopolitan orientation. The more local an individual's orientation, the greater the probability toward resistance (Evans & Leppman, 1967; Russell, 1971; Rogers & Shoemaker, 1971); Wolf & Fiorino, 1972; Herr, 1986). These three factors have been selected for

this study. An exploration of relevant literature on each area will be provided.

Dogmatism

According to Rokeach (1960), dogmatic thinking refers to resistance to change of systems of beliefs. Dogmatism refers to any number of things: a closed way of thinking which could be associated with any ideology regardless of content, an authoritarian outlook on life, an intolerance toward those with opposing beliefs, or a sufferance of those with similar beliefs (Rokeach, 1960).

A characteristic that defines the extent to which a person's system is open or closed is the extent to which the person can receive, evaluate, and act on relevant information received from the outside on its own intrinsic merits, unencumbered by irrelevant factors in the situation arising from within the person or from the outside (Rokeach, 1960). According to Rokeach (1960), examples of irrelevant internal pressures that interfere with the realistic reception of information are unrelational habits, beliefs, and perceptual cues, irrational ego motives, power needs, the need for self-aggrandizement, and the need to allay anxiety. Examples of irrelevant external pressures are the pressures of reward and punishment arising from external authority, i.e., parents, peers, reference groups, social and institutional norms and cultural norms (Rokeach, 1960).

The more open one's belief system, the more the individual should evaluate and act on information independently based on its own merits, in accordance with the inner structural requirements of the situation. Also, the more open the belief system, the more should the person be governed in his actions by internal self-actualizing forces and less by irrational inner forces. Consequently, the more he should be able to resist pressures exerted by external sources to evaluate and to act in accord with their wishes. An important implication here is that the more open the person's belief system, the more strength the individual should have to resist externally imposed reinforcement, rewards, and punishment.

According to Rokeach (1960), the dogmatic person resists change in an organization that will require a basic, large scale change in his belief system. If the dogmatic individual is extremely resistant to change, it may be that he is trying to allay anxiety inherent in changes that challenge his basic belief systems (Herr, 1986). The dogmatic individual will be open to change as long as the new belief, the proposed change, can be readily integrated into the present belief system without requiring undue change in the system (Rokeach, 1960; Herr, 1986). The personality characteristics of the dogmatic individual supports the generalization that highly dogmatic individuals generally do resist change (Renuart, 1973; Herr, 1986). Rokeach offers the Dogmatism Scale as a useful tool for predicting change orientation (Herr, 1986).

Bridges and Reynolds (1968) conducted a study of teacher receptivity to change. They utilized 307 elementary teachers drawn from 15 urban, suburban and rural school systems in Illinois, Missouri, Kentucky, and Tennessee. The effects of a teacher's belief system on receptivity to the trial of innovation was examined using data collection from a receptivity to change scale, the Dogmatism Scale and biographical data. The Bridges and Reynolds perceptivity to change scale is a 10-item scale specifying general properties of an unidentified innovation. Respondents were asked to check if they would initiate a request for trial use of the innovation, respond affirmatively to a request for volunteers to use the innovation, decide to use the innovation on a trial basis if asked, express desire to stay with current practice, or be strongly against the use of the innovation on a trial basis. The researchers found that teachers with open belief systems were significantly more receptive to change than teachers with closed systems. It was also noted that a large proportion of the variance in receptivity was unexplained, suggesting the need to consider the practical significances of this measure (Herr, 1986).

O'Reilly and Fish (1976) investigated the relationship between dogmatism and resistance to educational innovation in 301 junior high teachers. Ramer's Educational Innovation Scale (1967) and Rokeach's Dogmatism Scale (1960) were used to measure receptivity and close-mindedness, respectively. Findings revealed that closed-minded teachers

were significantly more resistive in their attitudes than their open-minded counterparts (Herr, 1986).

A study in the nursing literature suggested that dogmatism is a personality trait which changes over time. Ciurczak and Smith (1984) studied three groups of students in a Primary Care Nurse Practitioner educational program. They were concerned with the use of dogmatism and age as predictors of success in a nurse practitioner program. Age and level of dogmatism at entry and completion of the program were assessed. The Rokeach Dogmatism Scale was used to measure dogmatism at the beginning of the program and the California F Test (Adorno, Frenke-Brunswik, Levinson, & Sanford, 1950) was used at the conclusion. Results indicated that open- and/or closed-mindedness (dogmatism) was not related to age. Success in the completion of the educational program was not related to one's degree of dogmatism and the program can affect the participant by causing the individual to be more open-minded (Herr, 1986). The result of this study must take into consideration the effects of history, maturation, selection and mortality as threats to internal validity. Additionally, change in dogmatism was based on the comparison of two different tools which have correlations estimated to range between .54 to .82. Herr (1986) further stated that consideration should be given to these intervening factors when evaluating the strength of the study's conclusions.

Additional works relative to dogmatism as cited by Herr (1986) are as follows:

A correlational study on a sample of 48 teachers from two highly innovative middle schools was conducted by Peck (1969). The relationships between receptivity to change and dogmatism, measured by Rokeach's Dogmatism Scale (1960), and one's sense of power, measured by Moeller's Sense of Power Scale (Moeller, 1966), were examined. Receptivity to change was measured using a modified form of Bridges and Reynold's Receptivity to Change Scale (Bridges & Reynolds, 1968). The receptivity to change score was determined by having each member on a teaching team to individually rate each of his fellow team members as to how receptive the team member has been to the trial of innovation. The mean score of each individual's ratings by fellow team members was the change score. No significant relationship was found between receptivity to change and dogmatism. The relationship between receptivity to change and the teacher's perceived power in their association with the building principal was significant. According to Herr (1986), the measurement of receptivity to change in this study should be considered in evaluating the findings since it is not a self-perception measure and a variety of intervening factors could affect the ratings of an individual by a group of others.

Renaurt (1973) completed a study examining dogmatism and receptivity to change of 769 classroom teachers, counselors and librarians in

11 randomly selected secondary schools in Dale County, Florida. The Rokeach Dogmatism Scale (1960) and the Trumbo Change Scale (1961) were utilized. A significant correlation was found between teacher's receptivity to change and dogmatism, teacher's age (older, less receptive) and years of teaching experience (Herr, 1986). According to Herr (1986), the measure of receptivity for this study was the general orientation towards work-related changes.

A study exploring the relationship between receptivity to change and dogmatism of 46 K-12 curriculum directors was completed by Hanssel (1970). Ramer's Educational Innovation Scale (1967), which covers broad areas of educational innovation and change (including curriculum, physical, operational and personnel), was used to assess receptivity to change. Rokeach's Dogmatism Scale was utilized to measure one's open-closed belief system structure. Findings indicated that the more open-minded the curriculum director, the greater the receptivity to change. Hanssel (1970) also found a high correlation between local-cosmopolitan orientation as measured by the Gouldner's Local-Cosmopolitan Scale (1957) and receptivity to change. These two factors accounted for 80% of the variance in receptivity in multiple regression analysis. The addition of age, education, origin of office and tenure in office contributed less than one percent of the variance in receptiveness to change scores (Herr, 1986). According to Herr, a correlation this high has not been shown in other studies.

Russell (1971) found that early adopters, as a group, have significantly lower (less dogmatic) scores on the Rokeach Dogmatism Scale than did a laggard group (Herr, 1986). This finding is consistent with studies by Lin et al. (1966) who found that teachers who scored low on the Dogmatism Scale tended to be accepting of educational innovations (Herr, 1986).

General Change Orientation

Russell and Warmbrod (1977) posited that significant advances could be made in developing strategies for diffusion of innovation in education if simple means of identifying change-oriented educators existed. According to Russell and Warmbrod, although knowledge of one's attitudes does not allow consistent prediction of behavior, it may be hypothesized that change-oriented persons more frequently exhibit change behavior than non-change-oriented persons, provided the individual is not overpowered by real or perceived barriers in the environment. Halloran (1967) emphasized the need for determined individual attitudes and understanding their relation to behavior:

> If we know something about an individual's...attitudes, then not only do we have a brief summary of what has gone before in the individual's experience that may affect his behavior, but we may also be able to say something useful about his aspirations, his motivations, his striving toward his goals and to know something about why - along the way, he deals as he does with a great variety of social objects and values. In short, despite its limitations, it is a step in the right direction of reducing the complex to the simple, it helps to make sense and give meaning to individual behavior and in all probability it is the best basis for prediction yet devised (Russell & Warmbrod, 1977, p. 51).

Lin et al. (1966) affirmed the importance of initiating innovative programs through teachers who are most predisposed toward change. They stated:

> An instrument designed to measure an individual's change orientation would provide vital information for planning the introduction of an innovation into a system. It could be utilized before an innovation is introduced, providing information about the members' receptivity to change and the likelihood of successful introduction of the innovation into the system. And by learning what factors might be related to a teacher's change orientation, procedures for altering the level of change orientation could be initiated, provided that these factors were manipulable (Russell & Warmbrod, 1977, p. 67).

Russell and Warmbrod (1977) defined change orientation as "an individual's predisposition or attitude toward change." This definition was related to an assumption that "change orientation" is pervasive and underlies the adopter categories (i.e., innovators through laggards). Change orientation is presumed to be normally distributed in the population. It is further assumed that change orientation is relatively stable and enduring (Russell & Warmbrod, 1977).

In describing the ineffectiveness of long-scale educational effort, Etzioni (1972) pointed out a consistent lack of progress in modifying

ingrown habits, basic values, personality traits, or other deep-seated matters (Russell & Warmbrod, 1977). Therefore, Russell and Warmbrod (1977) asserted that it is apparently safe to assume relative stability of change orientation or that one's attitude toward past change is related to his attitude toward future changes.

An instrument to measure the change orientation of "known groups" of early adopter and laggard vocational teachers was developed by Russell and Warmbrod (1977). The sample consisted of 125 vocational education teachers from 38 states. These teachers were classified as laggards or early adopters. The instrument consisted of eight subscales related to specific topics of importance in the field of vocational education. The short form of Rokeach Dogmatism Scale (1965), the Rotter Internal-External Control Scale (1966), the Dye Local-Cosmopolitan Scale (1963), and the McClosky Conservation Scale (1958) were included in the questionnaire for construct validation and for assessing personality attributes believed to be closely associated with change orientation (Herr, 1986). Early adopters had significantly higher change orientation scores on five of the eight subscales, higher total change orientation scores, lower scores on the Rokeach Dogmatism Scale, lower (less localistic) scores on the Dye Local-Cosmopolitan Scale and lower class conservative) scores on the McClosky Conservation Scale than laggards (Herr, 1986).

Trumbo (1961) conducted a study in which individual and group

correlates of attitudes toward change were examined, refining hypotheses regarding those factors which condition employee attitudes toward work-related change. The following assumptions were made: (1) the attitudes toward change could be meaningfully related to personal data items and other indices of employee needs and abilities, and that from these relationships more specific hypotheses about the underlying needs structure and conditions of change attitude could be derived; and (2) that the social psychological climate of the work group, as reflected in measures of supervisor's attitudes and group cohesiveness, condition the change attitudes of the group. Trumbo (1961) constructed a scale to measure attitudes toward work related change. The scale was devised with a sample of 46 supervisory and 232 nonsupervisory personnel of an insurance company involved in "office automation" changes. The major index of employee attitudes toward work-related change consisted of nine Likert-type items. The items covered changes directed toward ways of doing the job and transfer to new jobs (Trumbo, 1961). The Change Scale score were found to be predictive of attitudes toward specific change situations, particularly when the employee perceived or anticipated relatively extensive changes in his own job (Trumbo, 1961).

Specific results using the change scale were as follows: First, Female employees scored significantly lower on the Change Scale than males. Trumbo (1961) hypothesized that the female's unfavorable attitudes toward

change may reflect a perceived threat to informal social structure; Secondly, change attitudes were positively related to the capacity to adjust to changes; Thirdly, attitudes toward change were found to be associated with work group membership; Fourth, group cohesiveness was negatively related to Group Change scores which suggested that unfavorable attitudes toward change may indicate that change poses a threat to the satisfaction of social needs through informal social structure; Fifth, supervisors' attitudes toward change were positively related to Group Change scores, while supervisors' scores on a measure of authoritarianism were negatively related to Group Change scores; and Sixth, among employees who perceived increases during the preceding year on variety, skill and responsibility demands, and chances for promotion, approval of these increases was associated with higher Change Scale scores than indifference or disapproval. This evidence provided tentative support for the view that readiness for change is related to employee needs for variety, status, and self-expression at work (Trumbo, 1961).

Additional works regarding change orientation as cited by Herr (1986) are as follows:

Boulmetis (1982) used an ex post facto design to investigate the relationship of personal factors, a person's general orientation to change and the adoption of innovations of 45 Adult Basic Education (ABE) teachers in Rhode Island. The Russell Change Orientation Instrument (COI) was used to

obtain data on the change orientation of teachers. Using the Levels of Use (LOU) procedure, subjects were interviewed to determine the extent to which the innovations, Competency-Based Adult Education and the Rhode Island Curriculum Guide for Adult Learners had been adopted. The personal factors that were assessed were years teaching, year teaching in ABE, subject taught in ABE, level of education completed, number of in-service functions attended in one year, age and program where employed. The results of this research revealed that there were no significant relationships between the personal variables and change orientation, the personal variables and innovation adoption or change orientation and innovation adoption (Herr, 1986).

Faculty receptivity to change was examined by Kazlow (1974). The Trumbo Work-Related Change Scale (1961) was utilized as a measure of general attitude toward change in work-related activities. Four regression equations for four different innovations were completed to predict receptivity to the respective innovations. General change orientation entered the stepwise procedure fourth for one of the innovations with a significant influence on variance explained. General innovativeness was all a significant prediction for the other three innovations. Pearson Product Moment correlations between general change orientation and receptivity to change for each innovations revealed no significant relationships (Kazlow, 1974; Herr, 1986).

Ramos (1981) conducted a similar study utilizing elementary teachers in Puerto Rico. No significant relationships between general attitude toward change (as measured by the Trumbo Work-Related Change Scale) and receptivity to any of four proposed innovations was found (Herr, 1986). According to Herr (1986), Kazlow's and Ramos' findings suggest that one's general orientation toward change may not always be a valid predictor of one's response to a specific innovation.

Local-Cosmopolitan Orientation

The local-cosmopolitan measurement refers to the scale of social environment in which the individual sees himself. Locals see themselves primarily as members of the local community, while cosmopolitans are more cognizant of their relationships to larger social organizations (Dye, 1963). Merton (1957) has employed the concepts of local and cosmopolitan to distinguish between types of persons with contrasting involvement and identification with local or national structures. Merton (1957) described the local as "parochial," confined in his interest to one community, "preoccupied with local problems to the virtual exclusion of the national and international scene" (Dye, 1963). However, the concept of cosmopolitan identifies and relates the individual to issues, events, and social organization outside of his local community (Merton, 1957; Dye, 1963).

According to Dye (1963), complex psychological mechanisms

motivate individuals to relate and identify themselves with separate levels of their social environment. Local or cosmopolitan attitudes may serve to simplify the task of scanning the environment of personal relevance. Individuals may have learned to avoid the process of determining how to relate themselves to various social aspects by categorizing them in a parochialism scale (Dye, 1963).

Merton (1957) conducted one of the first studies to examine the local-cosmopolitan dimension. He distinguished types of persons with contrasting involvement and identification with local or national social structures in the small town of "Rovere". Characteristics as interpersonal relations (number, source, and type of friends) and communications behavior (type of magazine read) were examined in influential individuals. Through the findings of his study, Merton distinguished between people who are local and people who are cosmopolitan. The local, Merton (1957) writes:

> ...confines his interests to his community. Rovere is essentially his world. Devoting little thought or energy to the Great Society, he is preoccupied with local problems, to the virtual exclusion of the national and international scene. He is, strictly speaking, parochial (Herr, 1986, p. 33).

The cosmopolitan:

> ...has some interest in Rovere and must of course maintain a minimum of relations within the community since he, too, exerts influence there. But he is also oriented significantly to the world outside Rovere, and regards himself as an integral part of that world. He resides in Rovere but lives in the Great Society. If the local type is parochial, the cosmopolitan is ecumenical (Herr, 1986, p. 33).

The local-cosmopolitan orientation was presented by Gouldner (1957) as a role. He used the concept as a guide in studying professionals in bureaucratic organizations (Herr, 1986). In a study of professors at "Coop" College, Gouldner concentrated on an individual's self-concept as measured by pertinent orientations rather than by overt differences in behavior. Gouldner (1957) considered highly cosmopolitan people to have low organizational loyalty, low commitment to specialized or professional skills and other reference group orientation. Individuals thought to be locals would have opposite orientations. Gouldner differed from Merton in that he viewed local-cosmopolitan orientation as a continuum rather than as a dichotomy (Herr, 1986).

Dye (1963) operationalized locals and cosmopolitans by the consistency of response on a five-item Likert type scale. Cumulatively, the items on this scale were intended to identify persons whose scale of social experience was limited, persons whose primary interest and involvement were in local rather than national or international affiars, persons who perceived themselves primarily as members of a local community rather than as a member of larger social organizations, and persons who identified with, and allocated respect toward, individuals with local rather than national reputations (Dye, 1963).

Becker (1971) studied the factors which facilitate or inhibit adoption of new programs by administrators of local health departments. He found

that early adopters sought information from professional meetings outside the state, professional journals and post graduate courses, while those slow to adopt acquired information from local sources (Herr, 1986).

In an effort to trace the diffusion of innovation, Katz (1961) compared two studies. One study looked at how hybrid seed corn gained acceptance among farmers in two communities; and the other study examined how doctors in four communities responded to the availability of a new "miracle" drug. Katz (1961) found that early adopters had more contact with the outside world. Farmers who were early adopters read more farm journals, made more trips to the city and to country fairs, and belonged to more formal organizations. Physicians who were early adopters read more medical journals, attended more out-of-town medical meetings, and were more integrated in informal friendship, discussion, and advice networks (Herr, 1986).

In a case history on resistance to innovation in higher education, Evans and Leppman (1967) studied an academic community's response to Instructional Television (ITV). The sample consisted of all faculty in one department. Interviews were conducted to identify values, beliefs, attitudes and personality characteristics. The data revealed that the professor who is receptive to new ideas from the social system apart from the university tends to look favorably upon ITV, while the professor whose orientation is focused on his own academic community looks unfavorably upon ITV (Herr,

1986).

Kazlow (1977) found that basic group affiliation (measured by the Dye Local-Cosmopolitan Scale) was the strongest determinant of receptivity to one of four innovations (Education Council). Initially, Kazlow (1974) saw local-cosmopolitanism as a personality measure. However, after reanalysis of data from the study, Kazlow (1977) interpreted the Dye Scale to represent a measure of faculty members' external informal status as they perceive it (Herr, 1986).

In a study of 46 K-12 curriculum directors, Hanssel (1970) found a significant correlation between local-cosmopolitan orientation as measured by Gouldner's scale and receptivity to change as measured by Ramer's Educational Innovation Scale (Herr, 1986).

Galgoci (1971) studied 101 volunteer school administrators' values, local-cosmopolitan orientations and attitudes toward educational innovation. He concluded that cosmopolitan administrators were more receptive to change than locals. In a similar study of 30 elementary principals, Mabry (1976) found no significant difference in the degree of innovations of locals or cosmopolitans. The Local-Cosmopolitan Index for Administrators was used in both of these studies (Herr, 1986).

Additional works which addressed local-cosmopolitanism were cited by Herr (1986) as follows:

Russell (1971) postulated that early adopters, as a group, would have

significantly lower (less localistic) scores on the Dye Local-Cosmopolitan Scale than the laggard group. This hypothesis was supported as the laggards did hold localistic points of view and early adopters held more cosmopolitan points of view.

The relationship between personality and status factors of Puerto Rican elementary school teachers and receptivity to change was analyzed by Raymond (1979). In this study, Raymond found strong correlations between local-cosmopolitanism (measured by the Dye-Local Cosmopolitan Scale) and receptivity to change (measured with semantic differentials).

A study surveying 391 nurse educators from baccalaureate and graduate degree nursing programs in public and private colleges or universities across the nation was conducted by Pollow (1984). Pollow examined the relationships between nurse educators' local-cosmopolitan orientations and their agreement with a projected clinical practice mandate, involvement in clinical practice and ranking of factors facilitating practice. An adaption of Johnston's Local-Cosmopolitan Scale (1967) was used. Pollow could not distinguish locals and cosmopolitans among the nurse educators. Ninety-five percent of the sample were within the theoretically-mixed range of local-cosmopolitanism. Pollow (1984) offered the following reasons for his findings: (1) the tool used may not be a good discriminator of local-cosmopolitan orientation; or (2) there may be a possibility of a "mixed" category in nurse educators.

The Status-Risk Explanation

The status-risk theory of receptivity maintains that receptivity to change is due primarily to structural forces: the statuses or positions people hold and the degree to which an innovation either threatens or benefits their statuses (Giacquinta, 1975a; Yarcheski & Mahon, 1984).

Giacquinta (1975a) summarized the basic premises of the status-risk theory:

> "(1) all innovations contain varying degrees of possible benefits, risks and uncertainties for organizations and organizational members, and (2) an organizational member's receptivity to an innovation is a function of the extent to which he perceives risk, and more specifically of the degree to which he perceives direct or indirect risks to his organizational status were the innovation to become a reality" (Yarcheski and Mahon, 1984). An implicit premise is that the introduction of a specific innovation will usually involve more risks for members of some statuses than others (Yarcheski & Mahon, 1984, p. 120).

According to Giacquinta (1975b), people occupy organizational statuses and work according to certain role expectations in order to fulfill their own needs as well as the organizational needs. Their personal needs are met by acquiring perquisites. When an innovation that changes one's status and/or role is introduced, doubt about the state of these perquisites emerges (Giacquinta, 1975b). The introduction of an innovation places organizational members into a threatening situation in which they become engrossed with appraisals of the risks they are taking in their perquisites were the innovation to be carried out (Giacquinta, 1975b).

Persons simultaneously occupy formal and informal statuses outside the organizational setting as well as within (Giacquinta, 1975b). The introduction of an innovation also involves uncertainty regarding the perquisites that other statuses or roles bring. For example, the implementation of open schooling might require so much time a woman teacher could not adequately perform as a mother at home, and, therefore, begin to feel guilty and displease her husband. A particular innovation could challenge the benefits that a principal derives from her informal status as a woman. Or, it might challenge the informal benefits accruing to male teachers in a given elementary school, e.g., greater opportunity for promotion. Moreover, each innovation is specific and while the uncertainty related to one innovation may be great, it may be virtually nil for another (Giacquinta, 1975b).

According to Tucker (1981), a faculty member's first reaction to a proposed change is to ask what affect it has in terms of opportunity for professional development, promotion, salary increases and work assignments. The effect change will have on their future relationships with co-workers, students, administration and others is also a concern (Herr, 1986). Tucker holds that these concerns represent perceived risk to perquisites affiliated with formal and informal status variables (Herr, 1986).

A chief reason for resistance to change is said to be the fear of loss of status, prestige, security or power. In an attempt to deal with an

environment that he does not control, a teacher might resist a new idea (House, 1974; Herr, 1986). According to House, feelings of powerlessness tend to cause the teacher to limit his encounters to low-risk situations. Subsequent to researching mental health professionals' resistance to change, Berlin (1969) advised that the fears of reduced status, financial return, work satisfaction and feelings of competency are the causes of such resistance. Powell and Posner (1978) recognize individual forces of resistance to change as fear of the unknown; feelings of failure and frustration; low level of aspiration; threat of change in social relations; threat of change to status; and threat of change to pride in achievement of existing job (Herr, 1989). Additional forces as offered by Trump (1963) include fear of personal inadequacy and requirement of too much time and energy. Bright (1964) identifies prevention of a reduction in livelihood and prevention of the elimination of a job or profession as additional concern (Herr, 1986).

According to Stevens (1975) possible causes of resistance to change by nurses include alterations in power and role in the organization, status in the organization, job activities, freedom, conveniences in the work situation and financial status (Herr, 1986). Argyle (1967) contends that habit, fear of change, less pay, harder work, weakened power, material loss and disruption of the social system contribute to resistance to change (Herr, 1986). When persons involved in a particular change perceived the change as a threat to their job security, there would be increase resistance (Bright,

1964; Spicer, 1952; Herr, 1986). Pendergraft (1975) views resistance to change as a survival tactic directed toward averting the discussion of weakness in expertise and limiting new demands on time and flexibility (Herr, 1986). Resistance may also occur when an innovation threatens to devalue the knowledge and skills of a person, especially when that person perceives the change as downgrading his position (La Piere, 1965; Herr, 1986).

Stephens (1974) found that the crucial variable associated with innovative classroom behavior was the reward system as perceived by the teacher. Determination of risk to external rewards, such as salary and promotion, are rather obvious. Intrinsic rewards, which include pride of workmanship, positive social interactions with peers and ability to influence school policy were found to be more important in the overall reward structure of high school teachers (Spuck, 1974; Herr, 1986).

Semi-professionalism may produce status insecurity. Gjerde (1983) and Herr (1986) suggested that innovations are often resisted by teachers because they imply further restrictions on "professional autonomy" and because they threaten the teacher's insecure self-image as an expert in his own field. Status insecurity in organizations has also been observed to cause "ritualism" or overcompliance with means to the neglect of ends (Sieber, 1975). Gjerde (1983) asserted that sources of individual resistance may be valuable expressions of efforts to maintain a sense of self-esteem,

competence and autonomy (Herr, 1986).

Barriers to the adoption of innovations arise when the change threatens a teacher's competence in an established area of self-esteem (Carlson, 1965; Herr, 1986). Teachers not able to perform their traditional roles in a school where programmed instruction was introduced resisted the need to reorient their role behavior. Innovation often requires adopting new practices in which teachers feel less secure and less competent and may require giving up of practices in which they feel secure and competent (Nicholls, 1983). Joyce (1969) stated that, to some extent, all adjustments requiring learning involve some risk of a feeling of incompetence. The risk can be considerable in situations where provision of time and assistance to develop competence are not available (Herr, 1986).

Miles (1964) stated that "...innovations which are perceived as threats to existing practice rather than mere additions to it are less likely of acceptance." Kazlow (1977) extended this point by saying that not only are those innovations which are perceived as threats to existing practice likely to be rejected, but an innovation which is perceived as threatening to one's tenure, one's academic discipline, self-image, or relative advantage can result in negative receptivity. If an individual perceives that his personal losses will outweigh the benefits if the change is adopted he may feel threatened (Herr, 1986).

Evans and Leppman (1967) interviewed faculty and found that

security was an important variable in affecting the behavior of a professor toward an innovation. The interviewed indicated that the younger, less-established professor, with the heavier teaching load and probably lower salary, was more likely to resist innovation (Herr, 1986). Evans and Leppman (1967) concluded that an individual's position in the university system is a viable factor which affects his receptivity to innovation. They further concluded that those with higher academic rank may feel less threatened by certain innovations than those with lower academic rank (Herr, 1986).

Giacquinta (1975a) conducted a study of the responses of four groups of educators to the proposed introduction of sex education in elementary schools. Giacquinta found that variations in receptivity were associated with variations in organizational status rather than with personality or demographic characteristics. The responses of highly receptive to highly unreceptive ran parallel to the order of groups according to status: board members, administrators, classroom teachers, sex education specialists. Further these group differences were paralleled to significant differences in the groups' risk levels which they perceived the introduction of sex education would create for them in their status (Giacquinta, 1975a).

Yarcheski and Mahon (1984) executed a study to analyze receptivity to the proposed introduction of the Unification of Education and Service Model among nurse educators in the United States according to the status-

risk theory of receptivity. The three status groups were deans, tenured faculty and nontenured faculty. Receptivity to the proposed innovation and the perceived level of risk were assessed from responses to three semantic differentials. The results of the study were as follows: (1) The means obtained indicated a moderately positive receptivity to unification among the nurse educators across the three status groups. (2) The means revealed that all three groups perceived moderately high benefits accruing to their statuses with the unification innovation. (3) Rather than perceived risk, the rank order of means indicated perceived benefits that were positively oriented to the rank order of means obtained on receptivity - the greater the perceived benefits, the higher the degree of receptivity, for all three status groups. (4) The tenure faculty, followed by the deans demonstrated a slightly lower level of receptivity than the non-tenured faculty; the tenured faculty, rather than the non-tenured faculty, demonstrated a slightly lower level of direct perceived benefits; and the tenured faculty, followed by the deans, showed slightly less indirect benefits than the non-tenured faculty. Overall, the results supported the status-risk theory. The degree of receptivity to unification of all three groups corresponded directly to the level of direct and indirect benefits they perceived accruing to their statuses (Yarcheski & Mahon, 1984).

Menlo (1984) conducted an exploratory study in an attempt to test the hypothesis that man does not resist change, rather that he resists the

loss perceived from that change. Thirty structured interviews with open-ended questioning were conducted by 15 graduate students. Accidental sampling was used to obtain a group of 30 respondents for the study. Respondents were asked to identify times in the past year when they were asked to identify times in the past year when they were asked to make a change and were unwilling to do so. A panel of four judges consensually judged transcribed interviews and identified the target of resistance to the requested changes. None of the 30 respondents were judged as identifying the change requested as the target of resistance. Each was judged as identifying an element within the events and issues expected if they had engaged in the requested change. All expected losses were judged by the panel as falling within the personal and social categories. No material losses were identified. More expected losses were of a personal nature than social nature. The major loss expected and resisted was the losing of one's power over one's self to others (Herr, 1986).

According to Herr (1986), there are many limitations to this study which include small sample size, biased procedure for sample selection, possible researcher bias, no control over the change being evaluated and questionable interrater reliability. However, the findings suggest a potential area for further study.

Wangen, Sederberg and Hendrix (1982) conducted a study exploring relationships between organizational and personal characteristics and

responses to innovation using 148 teachers involved in innovative projects. The research was derived from a developing theory which views receptivity, or variation in acceptable conditions of risk, as determined by the interaction or organizational and personal factors. Discriminant analysis of data showed that innovators were more receptive, experimenting, professionally active, and had a higher sense of power than non-innovators (Herr, 1986).

Wangen, et al. (1982) also assessed conditions of risk acceptable to high percentages of respondents. In their assessment several main areas were elicited. They were: familiarity with proposed changes, an innovation's record of success, provision of necessary training and assistance, and little disturbance of current roles. Differing patterns of support were identified for various specific innovations. Preferred innovations with higher receptivity were curricular or instructional changes. Pairing or consolidation were most popular among those measured least willing to take the risks to change. Wangen, et al. identified that technological changes were not highly favored by any group presumably because they are new and, thus, do not meet generally acceptable conditions of risk (Herr, 1986).

Wangen, et al. (1982) utilized multiple regression to identify personal and organizational variables predictive of receptivity. Receptive teachers differed from innovators in their uncertainties about principle support and their power to influence school decision-making. High professionalism

scores of innovators were in significant contrast to non-innovator teacher scores. Findings also indicated that innovators are older, more experienced and less mobile than other teachers. In examination of personality characteristics related to receptivity to change, two stood out as significant in most analyses: those associated with experimenting behavior and group identification. The combination of 12 variables accounted for 64% of the variation in receptivity scores.

Additional work regarding the status-risk theory as cited by Herr (1986) is as follows:

The status-risk theory of receptivity was tested by Ramos (1981) using teachers in the San Juan region of the Puerto Rican public school system. Ramos sought to use the affect of desired perquisites as an explanation for differences in receptivity to proposed changes within status categories. Significant differences in degree of receptivity was found for teachers classified by level of teaching and whether or not they held administrative positions. The degree of receptivity to unionization paralleled the most desired perquisite of salary increase. An inverse order of receptivity to four innovations occurred with the second most desired perquisite of less paperwork. Those who selected less paperwork as a highly desired perquisite were least receptive to innovations believed to cause an increase in paperwork.

Raymond's (1979) study of 164 randomly selected K-8 teachers from

suburban San Diego County school district gathered additional data on perceived risk. Correlations between perceived risk and demographic variables ranged from .19 to .42. The variables of age, experience and education were more accurate indicators of teacher's receptivity than the variables sex, years at a particular school and grade level taught. The correlation between a teacher's perceived risk and his or her receptivity to change was .21. Raymond presented the correlations as descriptive information and did not analyze the correlations for significance. These findings are not supportive of the early findings of Giacquinta.

Summary

This chapter provided a review of research which analyzed faculty receptivity and presented discussion of two theories of resistance to innovation.

The research which examined faculty receptivity found data which did not support the assumptions that faculty members are conservative resistors of change. Instead, the data revealed that faculty members, in most instances, were in favor of innovation.

One of the theories of resistance to innovation holds that organizational members' receptivity to change is a function of their personalities (Kazlow, 1974). Three personality variables which have been given much attention from researchers were discussed. One of the

personality variables that was discussed is dogmatism. Dogmatism refers to the way one believes or thinks. The other personality variable was cosmopolitanism. Cosmopolitanism deals with the range of social environment in which the individual sees himself. The third personality variable was orientation toward work-related change. Orientation toward work-related change is concerned with an individual's predisposition or attitude toward change in the work place.

The second theory of resistance to innovation that was discussed is called the status-risk theory. This theory basically holds that receptivity to change is due primarily to structural forces; the statuses or positions people hold and the degree to which an innovation either threatens or benefits their statuses (Giacquinta, 1975a; Yarcheski & Mahon, 1984). Some of the status variables that were identified were autonomy, perceived power, job security, salary, self-esteem and reasonable work load.

Chapter 3

METHODOLOGY

The purpose of this chapter is to describe the methodology that was utilized to conduct this investigation. A description of the design, selection of the population and sample, procedures for data collection, instrumentation, and planned statistical analysis will be provided.

Design

A correlational research design was used because the researcher was interested in analyzing the relationship between selected status and personality variables, perceived risk, threat to job perquisites, and receptivity to innovation.

Population and Sample Selection

The population of interest for this study was faculty in medical record administration programs in the United States. The medical record administration programs were selected because medical record administration is the researcher's area of professional expertise.

The population included 138 faculty members from medical record

administration programs who are currently employed in the medical record profession. A saturation sampling approach was used for this study.

Selection of the Innovations

The innovations selected for this research were computer-assisted instruction (CAI) and televised courses. These innovations were of particular interest because of two reasons: (1) the researcher's involvement in a workshop in 1982 at Norfolk State University (NSU) that was to provide the participants with the skills to incorporate CAI into their respective curriculum; and (2) the fact that resistance to televised courses has existed for over 25 years (Evans, 1967; Herr, 1986).

Instrumentation

The instrument for this research was a questionnaire containing four sections. This questionnaire was adapted from a study that was conducted by Herr (1986) which addressed nursing faculty resistance to innovation. The first section contained general information questions that were used to gather data about the subjects' background characteristics, statuses and valuation of job perquisites. Section two included two semantic differentials to measure receptivity to each innovation. The third section of the questionnaire contained two semantic

differential scales to measure perceived risk to the profession after introduction of the innovations and two Likert scales seeking information on the subjects' feelings regarding the effect the introduction of the innovations would have on job perquisites. The final section included three scrambled scales: the short form of Rokeach's Dogmatism Scale (1965), the Trumbo Work-Related Change Scale (1961), and the Dye Local-Cosmopolitan Scale (1963). The scales were scrambled to decrease threats to internal validity, i.e. testing, history and selection (Borg and Gall, 1979).

Measures of Status Variables

Section one of the questionnaire gathered information to identify various status characteristics that can be grouped into categories of formal and informal organizational statuses and formal and informal statuses external to the organization. Some of the questionnaire items were adapted from Kazlow (1974) and Herr (1986). Appendix C provides the categories of status variables.

Measures of Receptivity to Change

The semantic differential was used as the measure of receptivity because of its effectiveness in prior similar studies (Evans & Leppman, 1967; Giacquinta, 1975a; Kazlow, 1974; Ramos, 1981; Herr, 1986). The semantic differential

method is widely used for measuring the meaning of an object or a concept to individuals. Subjects were provided with a concept and a brief description of the concept under scrutiny. In this case, each innovation and its description was used. A set of bi-polar adjective pairs followed the concept. Between each of these pairs, the subject found a seven-point scale, three points in each direction indicating the intensity of the subjects' feelings. The middle point was left for a theoretical neutral or ambivalent rating. A summary score is usually generated for each concept through factor analysis for the three factors of evaluation, potency and activity. In this study, the bipolar adjectives were those used by Ramos (1981) and Herr (1986) and reflect the evaluation component used to measure receptivity in Kazlow's (1974), Giacquinta's (1975a) and Herr's (1986) studies. Eight adjective pairs were included to produce scores for each semantic differential ranging from a low of 8 to a high of 56.

The reliability and validity of the semantic differential has been reported as high in the literature (Osgood et al, 1957; Nunnally, 1967). A mean reliability coefficient of .85 was reported by Herr, 1986. Ramos (1981) reported alpha reliability coefficients of the semantic differentials to be .96 and above for the four innovations analyzed. Yarcheski and Mahon (1985) reported a coefficient alpha of .94. Herr (1986) reported that the reliability coefficients for the six seminatic differentials used in her study ranged from .95 to .97. The alpha reliability coefficients for the four semantic differentials used in this study ranged from .54 to .94 (Table 1). The instrument is said to have face validity since the distinctions

it provides correspond with those which would be made by most observers without the aid of instruments (Osgood et al., 1957; Herr, 1986).

Table 1

Alpha Coefficients For Each Semantic Differential (N = 74-83)

Semantic Differential	Cronbach Alpha
Receptivity to Computer-Assisted Instruction	.94
Receptivity to Televised Courses	.84
Perceived Risk From Computer-Assisted Instruction	.54
Perceived Risk From Televised Courses	.67

Measures of Perceived Risk

The semantic differential was also used to measure perceived risk. The subjects were asked to report their feelings about "my profession after the introduction of computer-assisted instruction" and "my profession after the introduction of televised courses." Eight objective pairs loading in the valuative dimension were used again. To identify what perquisites faculty perceived as threatened by the introduction of each particular innovation, subjects were asked to respond to a listing of job perquisites using a Likert scale rating method. The list and job perquisites were obtained from Herr's (1986) study.

After completing the perceived risk semantic differential for each innovation, the subjects were asked to respond to the list of job perquisites and rate the change expected if the innovation were introduced. According to Herr (1986), "Status-risk reasoning would suggest that there would be a strong correlation between threat to perquisites and receptivity to the innovation." For example, if perquisites are viewed as being decreased by the introduction of the innovation, a low receptivity toward the innovation would be expected (Herr, 1986). The perceived risk semantic differential was employed to ascertain an evaluative component to risk. The threat to job perquisites scale was used to identify content related to perceived risk. A significant correlation between these two measures was anticipated (Herr, 1986).

A factor analysis for each semantic differential was completed to obtain factor loadings for each subject on each innovation. For each semantic differential, a correlation matrix based on each subjects' response to the eight adjective pairs was factor analyzed and subsequent varimax rotation of the principal component analysis produced the evaluative dimension for each of the differentials. According to Nunnally (1967, p. 316), principal component analysis with subsequent varimax rotation explains the most variance for any set number of factors and is the ideal method of condensing variables in factor analysis.

A summary of the adjective pairs' loadings on the two receptivity semantic differential scales after a varimax rotation is presented in Table 2. The loadings ranged from .66 to .95. Additional factors were not isolated in the analysis.

Table 2

Factor Loadings of the Eight Adjective Pairs On The Two Semantic Differential Scales For Receptivity (Varimax Rotation) (n = 83)

Adjective Pair	Innovation Computer-Assisted Instruction	Televised Courses
1. Good/Bad	.66	.90
2. Progressive/ Regressive	.84	.83
3. Foolish/Wise	.74	.79
4. Ineffective/ Effective	.80	.73
5. Worthless/ Valuable	.74	.81
6. Important/ Unimportant	.89	.90
7. Beneficial/ Detrimental	.92	.95
8. Positive/Negative	.89	.92

Table 3 presents a summary of the adjective pairs' loadings on the two perceived risk semantic differential scales after a varimax rotation. The loadings ranged from .57 to .98.

The reliability coefficient calculated for the scales that were used in this study was the Cronbach's alpha. Coefficient alpha is the maximum likelihood estimate of coefficient if the parallel model is assumed to be true (Hull & Nie, 1981; Herr, 1986). Table 3 provides the alpha coefficients for each semantic differential. The alpha coefficient for receptivity to computer-assisted instruction and televised courses were high. However, the alpha coefficient for perceived risk from computer-assisted instruction was borderline and the alpha coefficient for perceived risk from televised courses was moderate.

Table 3
Factor Loadings of the Eight Adjective Pairs On The Two Semantic Scales For Perceived Risk (Varimax Rotation) (n = 83)

Adjective Pair	INNOVATION	
	Computer-Assisted Instruction	Televised Courses
1. Good/Bad	.95	.92
2. Progressive/ Regressive	.94	.92
3. Ineffective/ Effective	.80	.78
4. Worthless/ Valuable	.89	.86
5. Important/ Unimportant	.96	.95
6. Beneficial/ Detrimental	.98	.97
7. Positive/Negative	.97	.57
8. Tense/Relaxed	.85	.66

Table 4

Alpha Coefficients For The Threat To Perquisite Scales For The Two Innovations (N = 78-80)

Threat To Job Perquisite Scales	Cronbach Alpha
Computer Assisted Instruction (N = 80)	.86
Televised Courses (N = 78)	.84

Cronbach's alpha coefficients were also computed for the threat to Job Perquisites Scale that were developed for this study. Herr (1986) reported reliability coefficients ranging from .82 to .86. The reliability coefficients for the scale for each innovation in this study ranged from .84 to .86 (Table 4).

Measures of Personality Variables

Dogmatism

The short form of the Rokeach Dogmatism Scale (RDS) was used as a personality measure associated with general change orientation (Troldahl & Powell, 1965; Herr, 1986). The RDS attempts to measure openness versus closeness of one's style of thinking. The RDS is a Likert-type summated rating scale in which respondents are asked to rate each item from "1" (strongly disagree) to "5" (strongly agree). The possible range of scores on the 20-item scale is from 20 to 100, with the higher scores indicating a greater degree of dogmatism or closed-mindedness. The last section of the questionnaire composing this scale includes items 1 to 8, 10, 12, 14, 16, 18, 21, 22, 25, 27, 29, 31 and 34 (Herr, 1986).

Its validity and reliability has been consistently high (Vacchinno, Strauss & Hochman, 1968; Herr, 1986). The split-half reliability of the RDS was reported at .84 for an Ohio University student sample, showing a test-retest reliability of .71 with 5-6 months between tests. A split-half reliability of .79 and a correlation of .94 between its long and short form have been reported by Troldhl and Powell (1965) and Herr (1986). Kazlow (1974) reported split-half reliabilities of .72 and .73 respectively. Herr (1986) reported the reliability coefficient using Cronbach's alpha as .75. The reliability coefficient for this study is .70 (Table 5).

Table 5

Alpha Coefficients For Rokeach, Dye, and Trumbo Scales (N = 80 - 82)

Scale	Cronbach Alpha
Rokeach Dogmatism Scale (N = 80)	.70
Trumbo Work-Related Scale (N = 82)	.48
Dye Local-Cosmopolitan Scale (N = 82)	.61

Utilizing three groups of data, Vacchino, Strauss, & Shiffman (1968) examined three independent factor analysis of the items of the Dogmatism Scale. Rokeach's definition of the scale was corroborated by the findings which established empirical validity. The construct validity of the Rokeach Scale has also been established through the use of known groups. Graduate students in psychology selected friends and acquaintances whom the students believed to be low or high in dogmatism. These persons were contacted and later administered the Dogmatism Scale. Predictions were upheld at the .01 level of significance (Rokeach 1960; Herr 1986).

General Change Orientation

The Trumbo Work-Related Change Scale measures attitudes toward change which are related to work and is a nine item Likert-type scale. Subjects indicate their feelings on each item by specifying degree of agreement along a five-point scale. A "1" indicates strong disagreement and a "5" strong agreement. The possible range of scores is from 9 to 45. The last section of the questionnaire composing this scale includes items 13, 17, 19, 24, 26, 28, 30, 32, and 33. Items 13 and 30 are reverse scores to obtain a final general change orientation score (Herr, 1986).

Trumbo (1961) reported a .79 split-half reliability using this scale with Kazlow (1974) reporting a reliability of .56, however the item-total correlations were all positive, suggesting that if the test length were increased, its reliability

would increase. This conclusion was based on Trumbo's (1974) assumption that the average correlation among the items in the shorter test remained the same as the average correlation in the augmented test. Herr (1986) reported reliability of the Trumbo Work-Related Change Scale as .65. The reliability of the Trumbo Work-Related Change Scale for this study was .48 (Table 3.5).

Trumbo (1961) reported face validity of the tool as a measure of general attitude toward change. Additional evidence of logical validity was sought in comparison of scale scores with responses to questions about specific parts, current and anticipated future change events. Individuals were dichotomized into high change and low change groups on the basis of responses. Analysis indicated the change scale scores were predictive of attitude toward specific change situations, particularly when the employee perceived or anticipated relatively extensive changes in his own job (Trumbo, 1961; Herr, 1986).

Local-Cosmopolitan Orientation

The Dye Local-Cosmopolitan Scale (1963) was used as a measure of local-cosmopolitan orientation (Herr, 1986). The five-item Likert-type scale is intended to identify persons whose social experience is limited, persons whose main interests are local or compared to persons with a broader, national or international frame of reference (Dye, 1963; Herr, 1986). Respondents were asked to express their degree of agreement or disagreement with each item using a 5-point Likert scale. Scores on each item range from "1" strongly disagree to "5" strongly agree.

Scores on the scale range from a possible 25 (most localistic) to 5 (least localistic). The five items from the last section of the questionnaire comprising this scale will be numbers 9, 11, 15, 20, and 23 (Herr, 1986).

Dye (1963) reported that the scale's reliability was tested by means of the Likert Discriminating Power technique. Each of the five items discriminated significantly between respondents in the highest and the lowest quartiles on the local-cosmopolitan scale (Dye, 1963; Herr, 1986). Kazlow (1974) reported an alpha coefficient reliability of .61. Herr (1986) reported Cronbach's alpha reliability coefficient as .57. The reliability coefficient for this study was .61 (Table 3.5).

Construct validity seems to have been tested by previous researchers' ability to discriminate between locals and cosmopolitans in the populations studied (Dye, 1963; Kazlow, 1977; Raymond, 1979; Herr, 1986). However, caution is recommended since no concrete evidence of validity has been established (Herr, 1986).

Pilot Testing

The questionnaire was pilot tested using 13 faculty members from Norfolk State University of which 11 faculty members were in the Department of Community Health and Rehabilitation and 2 faculty members were in the Department of English.

The results of the pilot test were as follows:

1. The average amount of time needed to complete the questionnaire was 31 minutes. The completion time ranged from 13 minutes to 60 minutes.
2. Seventy-five percent of the respondents indicated the instructions for each section were clearly stated. Eight percent did not respond to this question.
3. Seventy-five percent of the respondent found the items for each section to be clearly stated. Eight percent did not respond to this item.
4. Fifty percent of the respondents indicated the items which make up the Likert scales were redundant.
5. Sixty-seven percent of the respondents stated that there was an excessive number of pages in the questionnaire.
6. Twenty-five percent suggested that the item about age be changed to provide an age rather than to request the absolute age.
7. Seventeen percent of the respondents suggested that the organization of the questionnaire be changed.
8. Eight percent of the respondents suggested that the title be reworded.

After appropriate consideration of suggestions, selected changes were made to the instrument.

Data Collection

The program directors of medical record administration programs were requested to distribute questionnaires to each full-time faculty member in the respective programs. This approach was used to overcome the limitations of securing the individual names of the faculty members. The names of the program directors were obtained from the 1991 Directory of Allied Health Education Programs that is published by the American Medical Association's Council on Allied Health Education.

A total of 138 questionnaires were mailed to the medical record administration faculty. Each faculty member received a cover letter explaining the research and guaranteeing confidentiality of response and a coded questionnaire (Appendix B). A follow-up post card was sent two weeks after the initial mailing to those faculty who did not respond. A follow-up telephone call was made one week after the first follow-up to faculty who still had not responded. A total of 89 questionnaires were returned at the end of the data collection period achieving a response rate of 64 percent. Of the questionnaires returned, 6 were considered unusable because the questionnaires were not completed.

Data Analysis

Data analysis was completed using the Statistical Packages for the Social Sciences (Nie, Hull, Jenkins, Steinbreuner & Bent, 1970) and SPSS Update 7-9 (Hull & Nie, 1981). The Pearson Product Moment correlation was used to indicate

the relationship between selected status and personality variables and receptivity to change (Herr, 1986). Regression analysis (Polit & Hungler, 1983; Herr, 1986) was used as the method of statistically analyzing the efficacy of the personality and social status explanations of receptivity.

Stepwise multiple regression was used to allow the personality and/or status variables to enter freely into the analysis depending on the relative amounts of variance each would explain (Herr, 1986). In stepwise regression, predictor variables are continually added, testing the F at each step to determine whether the increase in sum of squares due to regression is significant (Volicer, 1984; Herr, 1986). The default criteria for determining variable entry in stepwise regression was utilized and included a probability of F -- to enter -- of .05 and tolerance level of .01 (Hull & Nie, 1981; Herr, 1986).

Frequency distributions and percentages were utilized to display demographic and status information on the population.

Research Questions and Hypotheses

Question 1: Is receptivity to innovation better explained by selected status or personality variables (Herr, 1986)?

Hypothesis 1A: Status variables will account for the greatest variance in receptivity for each innovation (Herr, 1986).

Stepwise multiple regression was used to test this hypothesis. The findings were used to identify variables that reached significance in predicting receptivity to

innovation. Examination of the significant predictors provided data for determining which theoretical explanation of resistance to innovation was strongest (Herr, 1986). If status variables are the major significant predictors of receptivity, support will be provided for the status risk explanation of receptivity to innovation (Herr, 1986).

Status risk theory suggests that status variables will account for more variance than the personality variables (Herr, 1986). Two regression analyses were performed, one with the dependent variable of receptivity to computer-assisted instruction and the other with the dependent variable of receptivity to televised courses. Appendix D provides the list of predictor variables and dependent variables that were used in the stepwise multiple regression.

Hypothesis 1B: There will not be a significant intercorrelation in mean receptivity scores among the two innovations (Herr, 1986).

A Pearson Product Moment correlation between the mean receptivity scores of the two innovations was computed to determine how similar responses were for the innovations (Herr, 1986). If the status-risk theory is correct, there should not be a strong correlation among the innovations. If personality reasoning is correct, there should be a high correlation between the receptivity scores on both innovations. The level of significance for acceptance of the stated hypotheses was .01 for all statistical procedures that were used in this study (Herr, 1986).

Question 2: What is the relationship between selected status variables and receptivity to innovation (Herr, 1986)?

Hypothesis 2: There will be significant relationship between selected status variables and receptivity to each innovation [computer-assisted instruction and televised courses (Henry, 1986)].

For each innovation, the Pearson r was performed between each of the status variables and receptivity to each innovation. Tests for significance of the correlation coefficient was examined to determine which status variables were significantly related to receptivity to innovation (Herr, 1986).

Question 3: What is the relationship between selected personality variables and receptivity to each innovation (Herr, 1986)?

Hypothesis 3: There will be no significant relationship between selected personality variables (open-mindedness, change orientation, and cosmopolitanism) and receptivity to the two innovations [(computer-assisted instruction and televised courses) Herr, 1986].

For each innovation, A Pearson Product Moment correlation was completed between each of the personality variables and receptivity to innovation. Tests for significance of the correlation coefficients were analyzed to determine if the personality variables were significantly related to receptivity to innovation (Herr, 1986).

Question 4: What is the relationship between threat to job perquisites, perceived risk and receptivity to innovation (Herr, 1986)?

Hypothesis 4A: There will be a significant positive relationship between threat to job perquisites and level of perceived risk to each innovation [(computer-assisted instruction and televised courses) Herr, 1986].

Hypothesis 4B: There will be a significant negative relationship between perceived risk from each innovation (computer-assisted instruction and televised courses) and receptivity to that innovation (Herr, 1986).

Hypothesis 4C: There will be a significant negative relationship between threat to job perquisites and receptivity for each innovation [(computer-assisted instruction and televised courses) Herr, 1986].

The hypotheses was tested through the Pearson Product Moment correlation. Scores on the threat to job perquisite scale and the semantic differential for perceived risk, the semantic differential for perceived risk and the semantic differential for receptivity to innovation, and the threat to job perquisite scale and the semantic differential for receptivity to innovation were correlated for each innovation (Herr, 1986).

The relationships identified in the stated hypotheses were based on status-risk reasoning. The threat to job perquisites score is a measure of the effect the innovation is believed to have on identified job perquisites. Perceived risk measured by the semantic differential is an evaluative measure not specifying the content threatened by the innovation. Status-risk reasoning would suggest that threat to job perquisites would correlate highly with perceived risk (Herr, 1986).

The relationship between perceived risk and receptivity and between threat to job perquisites and receptivity were hypothesized to be negative according to status-wide reasoning. If perceived risk or threat to job perquisites were high, receptivity would be low (Herr, 1986).

Summary

The methodology that was used in conducting this study has been presented. A description of the design of the study was provided. The selection of the population and sample was discussed. The procedures that were used for data collection were outlined. The instrumentation was explained and the statistical analyses for each of the four hypotheses were described.

Chapter 4

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this chapter is to present the analysis of data. Two relationships are analyzed in this chapter. First, the relationship between status variables, personality variables, perceived risk and receptivity to two innovations is examined. Secondly, the relationship between perceived risk, threat to job perquisites and receptivity to two innovations is discussed. The data analysis included the following four areas: (1) a description of the sample; (2) descriptive statistics for scale responses; and (3) tests of the research hypothesis.

Description of the Sample

The demographic and status variables for the 82 subjects are discussed in this section. Table 6 provides a summary of this data.

The age of the respondents ranged from 25 to over 60 with the highest percentage of faculty falling between the ages of 31 and 48 (74%, n=61). Seventy-six (93%) of the subjects were female. The majority of the respondents were married (63%, n=52) and half of the faculty had dependent children at home (50%, n=41).

The majority of the faculty held a master's degree (77%, n=63). Thirteen

percent (11) of the faculty held a doctorate. Over half of the sample was non-tenured (51%, n=51). The length of tenure with their current institution was relatively evenly distributed during the first six years with the largest percentage of the respondents reporting tenure of 11 or more years (28%, n=23). Forty-four percent (36) of the faculty were not in an administrative position while 28% (23) of the faculty was a dean, division head or department head, eighty-three percent (67) of the respondents taught at the undergraduate level. Forty-eight percent (39) of the faculty held an academic rank of assistant professor.

The faculty as a whole was not heavily involved in publications and presentations. Thirty-seven percent (30) reported none for the number of publications in the last 5 years while 30% (25) reported 1-2 publications. Forty-four percent (36) of the faculty reported none for the number of presentations in the last 3 years and 33% (27) reported 1-2 presentations. Most of the faculty held office in one to four professional organizations (78%, n=68).

Forty-four percent (36) of the subjects did not currently use computer-assisted instruction in teaching with 37% (14) having used computer-assisted instruction for one to two years. Ninety-three percent (75) of the respondents did not use televised courses in teaching. Of the seven percent that did use televised courses, 44% (4) have used them for one to two years.

Table 6

Percentage and Frequency Distributions of Selected Personal and Organizational Status Variables of the Respondents

(N = 82 Unless Indicated Otherwise)

Variables	Categories	N	%
1. Gender	Female	76	92.7
	Male	6	7.3
2. Highest Degree	Bachelor's	6	7.3
	Master's	63	76.8
	Doctorate	11	13.4
	Other	2	2.4
3. Source of Highest Degree (N = 81)	Large State University	50	61.7
	Large Private University	9	11.1
	Small Private College	10	12.3
	Small State College	8	9.9
	Other	4	4.9
4. Currently In School	Yes	25	30.5
	No	57	69.5
5. Age	25 - 30	5	6.1
	31 - 36	18	22.0
	37 - 42	23	28.0
	43 - 48	20	24.1
	49 - 54	5	6.1
	55 - 60	9	11.0
	+60	2	2.4
6. Use of Computer-Assisted Instruction In Teaching (N = 81)	Yes	36	44.4
	No	45	55.6

Table 6
Percentage and Frequency Distributions of Selected Personal and Organizational Status Variables of the Respondents

Variables	Categories	N	%
7. Length of Computer-Assisted Instruction Use (N = 38)	Less than 6 Months	4	10.5
	6 Months to 1 Year	5	13.15
	1 to 2 Years	14	36.8
	2 to 4 Years	7	18.4
	Longer Than 4 Years	8	21.1
8. Use of Televised Courses In Teaching (N = 81)	Yes	6	7.4
	No	75	92.6
9. Length of Televised Courses Use (N = 9)	Less Than 6 Months	2	22.2
	6 Months to 1 Year	1	11.1
	1 to 2 Years	4	44.4
	Longer Than 4 Years	2	22.2
10. Level Teaching (N = 81)	Undergraduates Only	67	82.7
	Graduates Only	3	3.7
	A Mixture of Both	11	13.6
11. Academic Rank (N = 81)	Instructor	20	24.7
	Assistant Professor	39	48.1
	Associate Professor	22	27.2
12. Administrative Position (N = 81)	None	36	44.4
	Level of Specialty Coordinator	13	16.0
	Assistant/Associate Dean	3	3.7
	CEO (Dean, Division Head, Department Head)	23	28.4
	Other	6	7.4
13. Tenure (N = 81)	Tenured	34	42.0
	Non-tenured	35	43.2
	Non-tenured Track	11	13.6
	Other	1	1.2

Table 6
Percentage and Frequency Distributions of Selected Personal and Organizational Status Variables of the Respondents

Variables	Categories	N	%
14. Length of Tenure	0-2 Years	13	15.9
	3-4 Years	15	18.3
	5-6 Years	15	18.3
	7-8 Years	9	11.0
	9-10 Years	7	8.5
	11 or More Years	23	28.0
15. Publications in Last 5 Years	None	30	36.6
	1-2	25	30.5
	3-4	14	17.1
	5-7	10	12.2
	8 or More	3	3.7
16. Papers Presented Last 3 Years (N = 81)	None	36	44.4
	1-2	27	33.3
	3-4	7	8.6
	5-7	6	7.4
	8 or More	5	6.2
17. Professional Organization Office Held	None	14	17.1
	1	23	28.0
	2	24	29.3
	3-4	17	20.7
	5 or More	4	4.9
18. Marital Status	Single	11	13.4
	Married	52	63.4
	Divorced	18	22.0
	Separated	1	1.2
19. Dependent Children at Home	Yes	41	50.0
	No	41	50.0
20. Work Status	Full-Time	78	95.1
	Part-Time	3	3.7
	Other	1	1.2

Tables 7 and 8 provide a comparison of the respondents' rankings of selected activities according to the priority these activities currently receive and according to the priority that the respondents would like to place on these activities. The respondents seemed to display some conflict regarding their ranking of writing and research and teaching. Nine percent (7) of the respondents assigned writing and research the highest priority (Table 7) while 16% (13) of the respondents would like for writing and research to have the highest priority (Table 8). Eighty-two percent (67) of the respondents currently rank teaching as the highest priority. However, 10% (8) of the respondents would like to see teaching given less priority and 72% (59) of the respondents would like for teaching to have the highest priority.

There appeared to be a greater degree of harmony among the respondents in their current and desired ranking of activities not related to teaching, writing and research. Thirty percent (26) of the respondents ranked involvement with students outside formal instructional activities as the third highest priority (Tables 7 and 8). Thirty-seven percent (40) ranked playing a role in institutional policy-making through faculty committees as the fourth highest priority. Over 60% (55) of the respondents ranked participating in community activities and professional activities in accordance with community needs as fourth and fifth highest priority.

Table 7

Percentage and Frequency Distributions of the Respondents' Rankings of Selected Activities According to the Priority They Currently Receive From the Respondents

(N = 82 Unless Indicated Otherwise)

Variables	Categories	N	%
1. Writing and Research	Highest Priority	7	8.5
	Second Highest Priority	15	18.3
	Third Highest Priority	8	9.8
	Fourth Highest Priority	16	19.5
	Fifth Highest Priority	36	43.9
2. Teaching	Highest Priority	67	81.7
	Second Highest Priority	9	11.0
	Third Highest Priority	2	2.4
	Fourth Highest Priority	3	3.7
	Fifth Highest Priority	1	1.2
3. Involvement With Students Outside Formal Instructional Activities	Highest Priority	8	9.8
	Second Highest Priority	42	51.2
	Third Highest Priority	26	31.7
	Fourth Highest Priority	4	4.9
	Fifth Highest Priority	2	2.4
4. Playing a Role in Institutional Policy-Making Through Faculty Committees	Highest Priority	2	2.4
	Second Highest Priority	12	14.6
	Third Highest Priority	22	26.8
	Fourth Highest Priority	30	36.6
	Fifth Highest Priority	16	19.5
5. Participating in Community Activities and Professional Activities In Accordance With Community Needs	Second Highest Priority	4	4.9
	Third Highest Priority	23	28.0
	Fourth Highest Priority	29	35.4
	Fifth Highest Priority	26	31.7

Table 8

Percentage and Frequency Distributions of the Respondents' Rankings of Selected Activities According to the Priority That the Respondents Would Like For The Activities To Have

(N = 82 Unless Indicated Otherwise)

Variables	Categories	N	%
1. Writing and Research	Highest Priority	13	15.9
	Second Highest Priority	12	14.6
	Third Highest Priority	18	22.0
	Fourth Highest Priority	17	20.7
	Fifth Highest Priority	22	26.8
2. Teaching	Highest Priority	59	72.0
	Second Highest Priority	15	18.3
	Third Highest Priority	5	6.1
	Fourth Highest Priority	2	2.4
	Fifth Highest Priority	1	1.2
3. Involvement With Students Outside Formal Instructional Activities	Highest Priority	8	9.8
	Second Highest Priority	39	47.6
	Third Highest Priority	25	30.5
	Fourth Highest Priority	7	8.5
	Fifth Highest Priority	3	3.7
4. Playing a Role in Institutional Policy-Making Through Faculty Committees	Highest Priority	2	2.4
	Second Highest Priority	10	12.2
	Third Highest Priority	12	14.6
	Fourth Highest Priority	30	36.6
	Fifth Highest Priority	28	34.1
5. Participating in Community Activities and Professional Activities in Accordance With Community Needs	Second Highest Priority	6	7.3
	Third Highest Priority	23	28.0
	Fourth Highest Priority	25	30.5
	Fifth Highest Priority	28	34.1

Descriptive Statistics For Scale Responses

This section provides descriptive information on the various scales that were utilized in this investigation. The descriptive information includes the ranges, means, medians and standard deviations. The scales that were used in this study are the semantic differentials for receptivity and perceived risk, the Job Perquisites Scale, the Threat to Job Perquisites Scales, the Rokeach Dogmatism Scale, the Dye Local-Cosmopolitan Scale and the Trumbo Work-Related Change Scale. Tables 9 - 12 summarize these findings.

Receptivity to Innovation

The possible composite score for the semantic differentials on receptivity ranged from 8 to 56. The actual range of scores ranged from 15 to 56. The adjective pairs 1, 2, 6, 7 and 8 were reverse scored to produce the total receptivity score. The higher score indicated greater receptivity. The mean receptivity score for computer-assisted instruction was 47.0 and the mean receptivity score for televised courses was 41.1 (Table 9). The respondents were moderately receptive to both innovations.

Table 9

Ranges, Means, Medians and Standard Deviations For Each Semantic Differential

Semantic Differential	Range	Mean	Median	S.D.
Receptivity to Computer-Assisted Instruction (N = 81)	33.00-56.00	46.95	48.00	6.58
Receptivity to Televised Courses (N = 82)	15.00-56.00	41.09	41.00	9.14
Perceived Risk From Computer-Assisted Instruction (N = 74)	32.00-48.00	40.13	40.50	4.32
Perceived Risk From Televised Courses (N = 75)	22.00-48.00	36.84	36.00	5.64

Perceived Risk From Innovation

The possible composite score for the semantic differentials on perceived risk from the innovations ranged from 8 to 56. The actual composite scores ranged from 22 to 48. The adjective pairs 3, 4, and 8 were reverse scored to produce a total perceived risk score. The higher score indicated the greater perceived risk. The mean perceived risk score for computer-assisted instruction was 40.1 and the mean perceived risk score for televised courses was 36.8 (Table 9).

Job Perquisites

The Job Perquisites scale is a measure of the importance of specific job attributes. The Job Perquisites Scale contained 10 items. The range for each item is 1 to 5. The lower score indicated much importance while the higher score indicated little importance. The respondents deemed all of the job attributes as very important with the exception of sense of power. The mean score for sense of power was 2.56 (Table 10).

Table 10

Means and Standard Deviations For Each Scale Item
On The Job Perquisites Scale

(N = 80)

	ITEM	$\bar{x}$	S.D.
1.	Administrative Support	1.17	.47
2.	Autonomy	1.24	.46
3.	Financial Support	1.18	.40
4.	Intellectual Gratification	1.10	.30
5.	Interaction With Others	1.42	.52
6.	Job Security	1.45	.57
7.	Participation in Decision-Making	1.34	.50
8.	Professional Esteem	1.42	.52
9.	Sense of Power	2.56	1.08
10.	Time for Scholarly Productivity	1.55	.71

Threat to Job Perquisites

The Threat to Job Perquisites Scale measures the perceived threat to specific job attributes by a given innovation. The Threat to Job Perquisites Scale contained 10 items. The range of scores for each item was 1 to 5. The higher score indicated greater perceived threat to job perquisites. Table 11 provides the mean and standard deviations for each item in the scale for computer-assisted instruction and televised courses. The respondents perceived the attribute of job security ($\bar{x}$ = 3.00) as most threatened by computer-assisted instruction and participation in decision-making ($\bar{x}$ = 2.90) as the second most threatened perquisite. The faculty perceived interaction with others ($\bar{x}$ = 3.06) as the most threatened attribute by televised courses and job security ($\bar{x}$ = 3.00) as the second most threatened perquisite.

Table 11

Means and Standard Deviations For Each Scale Item On The Threat To Job Perquisites Scales For Each Innovation

N = 82

Item	Threat From Computer-Assisted Instruction (N = 82)		Threat From Televised Courses (N = 82)	
	$\bar{x}$	S.D.	$\bar{x}$	S.D.
1. Administrative Support	2.62	.68	2.73	.60
2. Autonomy	2.71	.68	2.83	.63
3. Financial Support	2.69	.69	2.80	.67
4. Intellectual Gratification	2.41	.81	2.80	.78
5. Interaction With Others	2.84	.80	3.06	.92
6. Job Security	3.00	.45	3.00	.43
7. Participation in Decision-Making	2.90	.50	2.91	.37
8. Professional Esteem	2.57	.71	2.64	.68
9. Sense of Power	2.80	.60	2.85	.63
10. Time for Scholarly Productivity	2.56	.76	2.62	.69

Table 12

Ranges, Means, Medians and Standard Deviations For Rokeach Dogmatism Scale, Dye Local-Cosmopolitan Scale, and Trumbo Work-Related Change Scale

Scale	Number Of Items	Range	Mean	Median	S.D.
Rokeach Dogmatism Scale (N = 80)	20	32-78	46.50	46.00	7.03
Dye Local-Cosmopolitan Scale (N = 82)	5	6-18	11.22	11.00	2.62
Trumbo Work-Related Scale (N = 82)	9	12-31	22.37	22.00	3.60

Dogmatism

The Rokeach Dogmatism Scale (1965) was used to measure the respondents' level of dogmatism or close-mindedness. The possible range of scores was 20 to 100. The higher score indicated the faculty was more dogmatic or close-minded. The actual range for the faculty was 32-78. The mean score for dogmatism was 46.50 (Table 12) which indicates that the faculty was less dogmatic.

Local-Cosmopolitanism

The Dye Local-Cosmopolitan (1963) scale was utilized to measure the respondents' local or cosmopolitan orientation. The potential range of scores was 5 to 20 with the higher score indicating a greater tendency toward localistic perspectives. The actual range was 6 to 18. The mean score for local-cosmopolitanism was 11.22 (Table 12). Such a mean indicates that the faculty tended to have a cosmopolitan orientation.

General Change Orientation

The Trumbo Work Related Scale (1961) was employed to determine the subjects' general change orientation. The potential range of scores was 9 to 45. The lower score indicated a higher change orientation. The actual range was 12-31 (Table 12). The mean score was 22.37 which indicated that the faculty was inclined to have a positive attitude toward change.

Test of the Hypotheses

This section presents the four research hypotheses and the appropriate statistical data that were employed to answer these hypotheses. The results of the statistical analysis are discussed.

Question 1: Is receptivity to innovation better explained by selected status or personality variables (Herr, 1986)?

Hypothesis 1A: Status variables will account for the greatest variance in receptivity for each innovation (Herr, 1986).

This hypothesis was supported. Stepwise multiple regression was used to examine the relationship between the selected status and personality variables and receptivity to computer-assisted variables and televised courses. Tables 13 and 14 present the findings of the stepwise multiple regression in which the independent variables were Dogmatism, Trumbo Work-Related Change Orientation, Dye Local-Cosmopolitanism, Perceived Risk from Computer Assisted Instruction and Perceived Risk from Televised Courses. The dependent variables were Computer-Assisted Instruction and Televised Courses. The only independent variable that accounted for a significant amount of the variance for computer-assisted instruction was perceived risk from computer-assisted instruction (45%) [See Table 13]. The stepwise results indicated that the only variable that explained a significant amount of the variance for televised courses was perceived risk from televised courses (45%). (See Table 14) None of the personality variables, i.e. Dogmatism, Trumbo Work-Related Change Orientation, or the Dye Local-Cosmopolitanism, significantly explained the variance in receptivity to computer-assisted instruction or televised courses.

Tables 15 and 16 present the findings of the stepwise multiple regression in which the selected status variables were the independent variables and computer-assisted instruction and televised courses were the dependent variables. (See Appendix C for the list of status variables). The first variable which explained a

significant amount of variance in receptivity to computer-assisted instruction was the faculty's desired priority for involvement with students outside formal activities (82%). The second variable which accounted for a significant amount of variance was use of computer-assisted instruction (16%). The third variable which explained the variance was age (.7%). See Table 15.

The variable which accounted for a significant amount of the variance for televised courses was the faculty's current priority for teaching (82%). The second variable which explained a significant amount of variance was the faculty's current priority for playing a role in all institutional policy-making through faculty committees (22%). See Table 16.

Table 13

Stepwise Multiple Progression

Receptivity To Computer-Assisted Instruction

Personality Variables and Perceived Risk

Variable	Multiple R	R Square	B
Perceived Risk From Computer-Assisted Instruction	.670	.449	1.069
Constant			3.656

Table 14

Stepwise Multiple Regression

Receptivity To Televised Courses

Personality Variables and Perceived Risk

Variable	Multiple R	R Square	B
Perceived Risk From Televised Courses	.670	.448	1.074
Constant			1.149

Table 15

Stepwise Multiple Regression

Receptivity To Computer-Assisted Instruction

Status Variables

Variable	Multiple R	R Square	B
Involvement With Students Outside Formal Activities (Desired Priority)	-.903	.815	-4.000
Use of Computer-Assisted Instruction	.405	.164	6.000
Age	-.085	.007	-1.000
Constant			51.000

Table 16

Stepwise Multiple Regression

Receptivity To Televised Courses

Status Variables

Variable	Multiple R	R Square	B
Teaching (Current Priority)	-.905	.819	-12.333
Playing a Role In Institutional Policy-Making Through Faculty Committees (Current Priority)	.471	.222	2.666
Constant			47.000

Hypothesis 1B: There will not be a significant intercorrelation in mean receptivity scores among the two innovations (Herr, 1986).

This hypothesis was not supported. The Pearson Product Moment Correlation coefficient for the mean receptivity scores for computer-assisted instruction and televised courses was .36 and it was significant at the .01 level (Table 17).

Table 17

Pearson Product Moment Intercorrelations Between Receptivity to Computer-Assisted Instruction and Televised Courses

(N = 83)

Receptivity To	Receptivity To Computer-Assisted Instruction	Receptivity To Televised Courses
Computer-Assisted Instruction		.36
Televised Courses		

p = .01

Question 2: What is the relationship between selected status variables and receptivity to innovation (Herr, 1986)?

Hypothesis 2: There will be significant relationships between selected status variables and receptivity to each innovation [computer-assisted instruction and televised courses (Herr, 1986)].

The Pearson Product Moment Correlation coefficients between the status variables and receptivity to each innovation supported this hypothesis. Table 18 provides the correlations for the status variables and receptivity to computer-assisted instruction and televised courses. There were twenty-two status variables. Five status variables were significantly related to receptivity and computer-assisted instruction. The five status variables were education, current teaching priority, current policy-making priority, desired teaching priority and desired policy-making priority. Three status variables were significantly related to receptivity to televised courses. The three status variables were administrative position, current policy-making priority and desired policy-making priority. Two status variables were significantly related to receptivity to both innovations. The two status variables were current policy-making priority and desired policy-making priority.

The strength of the correlations between the significant status variables and

receptivity to computer-assisted instruction was relatively low (r = .27 to .57). The strength of the correlations between the significant status variables and receptivity to televised courses were also low (r = .22 to .29).

Table 18

Pearson Product Moment Correlations For Status Variables With Receptivity to the Two Innovations

Variables	Receptivity To Computer-Assisted Instruction	Receptivity To Televised Courses
Education (Highest Degree)	-.57**	-.31
Age	.11	-.06
Computer-Assisted Instruction Use	.04	-.17
Length of Use of Computer-Assisted Instruction	-.14	-.14
Televised Courses Use	-.13	-.10
Length of Use of Televised Courses	.06	.14
Academic Rank	-.13	-.21
Administrative Position	-.07	-.26*
Tenure Status	.14	.05
Length of Time With Institution	.09	-.04
Publications in 5 Years	.11	.02
Paper Presentations in 3 Years	-.18	-.10
Current Teaching Priority	-.36**	-.15
Current Writing and Research Priority	-.13	.05
Current Student Priority	.19	-.19
Current Policy-Making Priority	.27*	.29**
Current Community Priority	.21	-.01
Desired Teaching Priority	-.27*	.03
Desired Writing and Research Priority	-.14	-.04
Desired Student Priority	.03	-.13
Desired Policy-Making Priority	.47**	.22*
Desired Community Priority	-.11	-.02

* p = .05 ** p = .01

Question 3: What is the relationship between selected personality variables and receptivity to each innovation (Herr, 1986)?

Hypothesis 3: There will be no significant relationships between selected personality variables (open-mindedness, change orientation, cosmopolitanism) and receptivity to the two innovations (computer assisted instruction and televised courses).

No significant relationships were found between the three selected personality variables and receptivity to computer-assisted instruction and televised courses (Table 19). The theoretical construct for this study suggests that personality variables influence receptivity to innovation. However, there were no significant findings for either of the innovations which further suggest that the personality measures utilized were not characteristics that explain one's receptivity to innovation. This does not obviate the possibility of other personality traits which may explain receptivity to innovation.

Table 19

Pearson Product Moment Correlations For Personality Variables With Receptivity to the Two Innovations

(N = 70)

	Personality Variables	Receptivity To Computer-Assisted Instruction	Receptivity To Televised Courses
1.	Dogmatism	.13	.11
2.	Change Orientation	-.12	-.12
3.	Cosmopolitanism	.08	.09

Question 4: What is the relationship between threat to job perquisites, perceived risk and receptivity to innovation (Herr, 1986)?

Hypothesis 4A: There will be a significant positive relationship between threat to job perquisites and level of perceived risk for each innovation [(computer-assisted instruction and televised courses) Herr, 1986].

The result of the Pearson Product Moment Correlations between perceived risk and threat to job perquisites for each innovation revealed weak negative correlations (Table 20). The correlations were -.11 and -.24 and were not significant at the .01 level. These findings indicate a weak relationship between threat to specific job perquisites and perceived risk of specific innovations. These findings do not provide support for the status-risk theoretical explanation of receptivity to innovation.

Table 20

Pearson Product Moment Correlations Between

Perceived Risk and Threat to Job Perquisites

For Each Innovation

(N = 70)

Variables	Threat To Job Perquisites From Computer-Assisted Instruction	Threat To Job Perquisites From Televised Courses
Perceived Risk Computer-Assisted Instruction	-.11	
Perceived Risk Televised Courses		-.24

Hypothesis 4B: There will be a significant negative relationship between perceived risk from each innovation (computer-assisted instruction and televised courses) and receptivity to that innovation (Herr, 1986).

A positive relationship between perceived risk from each innovation and receptivity to that innovation was found. The relationship is shown in Table 21. The correlation coefficient between receptivity to computer-assisted instruction and perceived risk from computer-assisted instruction was .67 and the correlation coefficient between receptivity to televised courses and perceived risk from televised courses was .57. These correlation coefficients were significant at the .01 level. These findings do not provide support for the status-risk explanation of receptivity to innovation.

Table 21

Pearson Product Moment Correlations Between Perceived Risk and Receptivity For Each Innovation

Variables	Receptivity To Computer-Assisted Instruction	Receptivity To Televised Courses
Perceived Risk Computer-Assisted Instruction	.67	
Perceived Risk Televised Courses		.57

Hypothesis 4C: There will be a significant negative relationship between threat to job perquisites and receptivity for each innovation [(computer-assisted instruction and televised courses) Herr, 1986]

The Pearson Product Moment Correlations between threat to job perquisites and receptivity for computer-assisted instruction and televised courses were -.17 and -.23 respectively (Table 22). These coefficients were not significant at the .01 level. These findings suggest that a strong relationship does not exist between threat to job perquisites and receptivity to innovations.

Table 22

Pearson Product Moment Correlations Between Threat to Job Perquisites and Receptivity For Each Innovation

(N = 70)

Variables	Threat To Job Perquisites From Computer-Assisted Instruction	Threat To Job Perquisites From Televised Courses
Receptivity to Computer-Assisted Instruction	-.17	
Receptivity to Televised Courses		-.23

Summary

This chapter provided the results of data analysis for this study. Descriptive statistics for the sample and the responses for the scales and semantic differentials were presented. Tests of the hypotheses were discussed.

Chapter 5

SUMMARY AND CONCLUSIONS

This chapter presents a summary of the theoretical framework of this study and the findings of the tests of the hypotheses. Recommendations for practice and research will also be discussed.

Summary of the Study

The purpose of this study was to compare two explanations of resistance to innovation. This research analyzed the relationship between selected status variables, personality variables and receptivity to computer-assisted instruction and televised courses. The relationship between perceived risk, threat to job perquisites and receptivity to computer-assisted instruction and televised courses was also examined. This study followed a correlation research design.

The conceptual framework of this study included two explanations of resistance to innovation. One explanation has a psychological foundation and holds that organizational members' receptivity to change is a function of their personalities (Kazlow, 1974). Personalities are viewed as internal systems which include elements such as attitudes, motives, values, needs and habits. These elements predispose people to relate in a consistent

manner to the environment (Kazlow, 1974).

The second explanation is sociologically based. It purports that persons occupy both formal and informal organizational stations and that overlapping those are other formal and internal stations, which they occupy but which are external to the organizational settings in question (Kazlow, 1974). This explanation further holds that members respond to specific innovations, not innovation in general, and that they do so in terms of whether the innovation would support or offer uncertainties and risks to the perquisites accruing to them in their present stations (Kazlow, 1974).

The variables believed to influence receptivity to innovation from the status and personality view-points were identified from a review of the literature. Status variables were selected to determine possible relationships with receptivity to innovation. The personality variables that were considered in this study were dogmatism, cosmopolitanism and general change orientation.

The instruments for data collection included semantic differentials measuring receptivity and perceived risk for computer-assisted instruction and televised courses, the Perquisites Scale, the Threat to Job Perquisite Scale, the short form of the Rokeach Dogmatism Scale (1965); the Dye Local-Cosmopolitan Scale (1963) and the Trumbo Work-Related Change Scale (1961). Demographic data were secured to provide information on status variables.

A saturation sample of all faculty in baccalaureate degree programs in medical record administration programs in the United States was utilized. A total of 138 questionnaires were mailed. After a follow-up mailing and telephone calls, 89 questionnaires were returned achieving a response rate of 64 percent. Statistical analyses were conducted using SPSSX.

Summary of the Findings

Four research hypotheses were tested. Part A of the first hypothesis stated that status variables will account for the greatest variance in receptivity for each innovation (Herr, 1986). This hypothesis was tested using stepwise multiple regression and on the basis of this analysis, the hypothesis was supported at the .01 level of significance. Perceived risk was found to contribute the greatest in explaining receptivity in both computer-assisted instruction and televised courses. Another status variable, use of computer-assisted instruction, was also identified as a predictor for receptivity to computer-assisted instruction. The status variable, playing a role in institutional policy-making through faculty committees, also significantly contributed to the explanation of variance in receptivity to televised courses.

Part B of the first hypothesis stated that there will not be a significant intercorrelation in mean receptivity scores among the two innovations. This

hypothesis was tested using Pearson Product Moment Correlation. This hypothesis was rejected at the .01 level. A significant intercorrelation in the mean receptivity scores for computer-assisted instruction and televised courses was found.

The second hypothesis which stated that there will be significant relationships between selected status variables and receptivity to each innovation was accepted at the .01 level. This hypothesis was tested using Pearson Product Moment Correlation. Several (five) status variables were significantly related to receptivity to computer-assisted instruction. Some (three) status variables were significantly related to receptivity to televised courses. A couple (two) status variables were significantly related to receptivity to both innovations.

The third hypothesis that there will be no significant relationships between selected personality variables and receptivity to the innovations was accepted at the .05 level. The Pearson Product Moment Correlation was used to test this hypothesis. No significant relationships were found between the three personality variables and receptivity to computer-assisted instruction or televised courses.

There were three parts to the fourth hypothesis. Part A stated that there will be a significant positive relationship between threat to job perquisites and level of perceived risk for each innovation. The Pearson Product Moment Correlation provided no support for this hypothesis. A

negative relationship was found.

Part B of the fourth hypothesis stated that there will be a significant negative relationship between perceived risk from each innovation and receptivity to that innovation. This hypothesis was tested using Pearson Product Moment Correlation and was rejected at the .01 level. A positive relationship was found between perceived risk from each innovation and receptivity to that innovation.

Part C of the fourth hypothesis stated that there will be a significant negative relationship between threat to job perquisites and receptivity for each innovation. The Pearson Product Moment Correlation yielded negative coefficients that were not significant at the .01 level.

Conclusions

Although the findings of this study can be only generalized to the faculty in medical record administration baccalaureate degree programs in the United States, the results may have implications for change agents of other educational programs. The following are conclusions related to the variables of this study.

1. Faculty members are not necessarily resistors to innovation. Findings from this study indicate that medical record administration faculty were more receptive than resistant to the

innovations presented.

2. The outcome of this investigation indicate the following:
   a) Status variables explained greater amounts of variance than did personality variables.
   b) A greater portion of status variables than personality variables were related to receptivity to innovation.
3. Perceived risk was a critical factor in determining receptivity to innovation.
4. The selected personality variables were not significant predictors of receptivity to innovation.

These findings are in accordance with other researchers' findings. For example Kazlow (1977) conducted a study to determine to what extent does the personality or the status-role theory provide a better explanation of faculty receptivity. The overall findings revealed that status variables accounted for most of the explained variance rather than personality variables.

Herr (1986) analyzed the personality and status-risk explanations. Herr (1986) examined the strength of these explanations using nursing faculaty as subjects. In accordance with Kazlow's findings, the status variables accounted for most of the explained variance - not the personality variables.

Recommendations

Recommendations For Practice

The intent of this study was to identify factors which affect resistance to innovation to provide guidance to change agents in planning the introduction of innovation. Administrators and change agents should not presume that faculty will resist all innovations. Rather, administrators and change agents should evaluate faculty response to specific innovations in light of perceived threats to the faculty's status.

There are several steps that change agents should follow in an effort to increase faculty receptivity to proposed innovations. Some of the crucial steps are as follows:

1. Inform the faculty of the proposed innovations during the conception of the idea.

2. Involve the faculty in the initial stages of planning.

3. Develop a method to assess threat to job perquisites.

4. Implement a feedback system to identify perceived perquisites and risks from the proposed innovation.

5. Explain the proposed change and how it will be integrated into the system.

Recommendations For Research

This research examined receptivity to innovation in terms of an attitude. Additional research should probably be conducted to investigate receptivity to innovation from the behavioral perspective.

Although the personality variables that were selected for this study were not predictors of receptivity to innovation, other personality variables should be identified for further study. It may be helpful to use alternate methods to measure personality variables.

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APPENDIX A

QUESTIONNAIRE LETTER

APPENDIX A

April 22, 1992

Dr. A. Jones, Head
Medical Record Administration
Virginia State University
Petersburg, VA 23504

Dear Dr. Jones:

Higher education is in the throwes of many transitions. These transitions are challenging colleges and universities to change their approach to the delivery of their educational programs. The purpose of this study is to identify variables which explain health related faculty's receptivity to innovation. Your participation is essential in examining these factors and will contribute to successful implementation of future educational change efforts.

Since you are an educator in a medical record administration baccalaureate degree program, you were selected as a participant in this study. Completed questionnaires from 103 medical record administration educators are needed to conduct this research.

Questionnaires are coded for the purpose of sending follow-up letters to those individuals who have not returned the questionnaire. When the desired sample size is obtained, the coding information will be destroyed. All information will be kept in strictest confidence and reported in statistical aggregates only. Background demographic information is collected for correlational purposes only. Return of the questionnaire will be taken as your consent to participate in this study.

Please complete one of the enclosed questionnaires and disseminate the remaining questionnaires to each full-time faculty member in your medical record administration program. Stamped addressed envelopes have been provided for your convenience. Please return the questionnaires by May 13, 1992. It is estimated that this instrument can be completed in 30 minutes. A copy of the results of this study will be sent if you so desire.

Thank you for your anticipated participation in this research. Your time and effort spent is considered invaluable. If you have any questions, please do not hesitate to contact me or my dissertation advisor, Dr. Gregory Frazer. You can contact Dr. Frazer at (804) 683-4413.

Sincerely,

Joyce B. Harvey, M.S., R.R.A.
Doctoral Candidate
Old Dominion University

Address: 2401 Corprew Avenue, Norfolk, VA 23504
Telephone: (804) 490-3826

APPENDIX B

QUESTIONNAIRE

A COMPARISON OF TWO THEORIES OF RESISTANCE TO INNOVATION IN MEDICAL RECORD ADMINISTRATION BACCALAUREATE DEGREE PROGRAMS

QUESTIONNAIRE

By

Joyce B. Harvey, M.S., R.R.A.

Doctoral Candidate

Old Dominion University

Norfolk, Virginia

120

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

1. You will find that this questionnaire can be completed very quickly. Please read the instructions carefully at the beginning of each section. Small numbers in the parentheses are for coding purposes only. Please ignore them.

2. If you have difficulty answering any question, please give your best estimate. If, after responding to a question you would like to make a comment, please feel free to do so in the margin.

3. Please do **not** place your name anywhere on the questionnaire.

4. After completing the questionnaire, please put it back into the envelope and seal it to insure that no one will have access to your responses.

THANK YOU FOR YOUR COOPERATION.

SECTION ONE: For each of the following questions please circle the number next to the most appropriate answer.

1. Gender
   1. Female
   2. Male

   (4)

2. What is your highest degree?
   1. Bachelor's
   2. Master's
   3. Certificate of Advanced Study
   4. Doctorate
      __EdD __PhD __DNS
   5. Other (Please Specify)

   (5)

3. Where did you obtain your highest degree?
   1. Large state university
   2. Large private university
   3. Small private college
   4. Small state college
   5. Other (Please Specify)

   (6)

4. Are you currently in school?
   1. Yes
   2. No

   (7)

5. If yes, for what purpose?
   1. For a higher degree
   2. College courses for my own interest
   3. Other (Please Specify)

   (8)

6. What is your age?
   1. Less than 25
   2. 25-30
   3. 31-36
   4. 37-42
   5. 43-48
   6. 49-54
   7. 55-60
   8. Above 60

   (9-10)

7. Have you used computer-assisted instruction (CAI) in your teaching?
   1. Yes
   2. No

   (11)

8. If yes, please indicate below how long you have been using CAI in your teaching:
   1. Less than 6 months
   2. 6 months to 1 year
   3. 1 to 2 years
   4. 2 to 4 years
   5. Longer than 4 years

   (12)

9. Have you used televised courses in your teaching?
   1. Yes
   2. No

   (13)

10. If yes, please indicate below how long you have been using televised courses in your teaching.
    1. Less than 6 months
    2. 6 months to 1 year
    3. 1 to 2 years
    4. 2 to 4 years
    5. Longer than 4 years

    (14)

11. In your present role are you teaching?
    1. Undergraduates only
    2. Graduates only
    3. A mixture of both

    (15)

12. Your academic rank is
    1. Instructor
    2. Assistant Professor
    3. Associate Professor
    4. Professor
    5. Other (Please Specify)

    _____

    (16)

13. Your present primary administrative position is (Circle one only)
    1. None
    2. Level of specialty coordinator
    3. Assistant/Associate Dean
    4. CEO (Dean, Division Head, Department Head)
    5. Other (Please Specify)

    (17)

14. Tenure status
    1. Tenured
    2. Non-tenured
    3. Non-tenure track

    (18)

15. How long have you held a position with this institution?
    1. 0-2 years
    2. 3-4 years
    3. 5-6 years
    4. 7-8 years
    5. 9-10 years
    6. 11 or more years

    (19)

16. Number of publications in the last five years (books, monographs, journal articles).
    1. None
    2. 1-2
    3. 3-4
    4. 5-7
    5. 8 or more

    (20)

17. Number of papers presented during the last three years at professional meetings:
1 None
2 1-2
3 3-4
4 5-7
5 8 or more
(21)

18. Number of professional organizations in which you have held or currently hold some office:
1 None
2 1
3 2
4 3-4
5 5 or more
(22)

19. Are you:
1 Single
2 Married
3 Widowed
4 Divorced
5 Separated
(23)

20. Do you have dependent children at home?
1 Yes
2 No
(24)

21. Are you
1 Full-time
2 Part-time
(25)

22. Please rank the following five activities according to the priority they **currently receive** from you as a full-time faculty member. Of the five, give a "1" to the activity given highest priority, a "2" to the next highest priority, and so on. Please do not give two activities the same ranking even though you may find it difficult to make the necessary differentiation.

_____Writing and research (includes own scholarly work)
(26)

_____Teaching
(27)

_____Involvement with students outside formal instructional activities (would include activities such as advisement, counseling, and supervision of student research)
(28)

_____Playing a role in institutional policy-making through faculty committees
(29)

_____Participating in community activities and professional activities in accordance with community needs
(30)

23. Please rank the following five activities according to the priority you would **like them to have** for you as a full-time faculty member. Of the five, give a "1" to the activity given highest priority, a "2" to the next highest priority, and so on. Please do not give two activities the same ranking even though you may find it difficult to make the necessary differentiation.

_____Writing and research (includes own scholarly work)
(31)

_____Teaching
(32)

_____Involvement with students outside formal instructional activities (would include activities such as advisement, counseling, and supervision of student research)
(33)

_____Playing a role in institutional policy-making through faculty committees
(34)

_____Participating in community activities and professional activities in accordance with community needs
(35)

SECTION TWO: In this section there are two innovations and a brief description of each. For each of these words there are 8 word pairs which are opposites.

Please rate each word pair in relationship to the concept and place an X on the line which you feel corresponds with your perception about the concept.

AN EXAMPLE IS ILLUSTRATED BELOW:

If you perceive that the concept at the top of the page is VERY CLOSELY RELATED to one end of the scale, you should place an X mark as follows:

Good_X_:___:___:___:___:___:___Bad OR Good___:___:___:___:___:___:_X_Bad

If you perceive that the concept is QUITE CLOSELY RELATED to one or the other end of the scale (but not extremely), you should place your X mark as follows:

Good___:_X_:___:___:___:___:___Bad OR Good___:___:___:___:___:_X_:___Bad

If the concept seems ONLY SLIGHTLY RELATED to one side as opposed to the other side (but is not really neutral), then you should place your X as follows:

Good___:___:_X_:___:___:___:___Bad OR Good___:___:___:___:_X_:___:___Bad

The direction which you check, of course, depends upon which of the two ends of the scale seem most characteristic of the thing you're judging.

If you consider the concept to be NEUTRAL on the scale, both sides of the scale EQUALLY ASSOCIATED WITH the concept, or if the scale is COMPLETELY IRRELEVANT, unrelated to the concept, then you should place your X mark in the middle space:

Good___:___:___:_X_:___:___:___:Bad

IMPORTANT:

	Yes	No
1. Be sure to mark the space and not the dots:	___:_X_:___	___:___X___

2. Never put more than one mark between each pair of words or skip any.

3. Be sure you check every scale for every concept -- DO NOT OMIT ANY.

Sometimes you may feel as though you've had the same items before. This may be the case, so DO NOT LOOK BACK AND FORTH through the items. Do not try to remember how you checked similar items earlier. MAKE EACH ITEM A SEPARATE AND INDEPENDENT JUDGEMENT. Do not worry or puzzle over individual items. It is your first impressions, the immediate "PERCEPTIONS" about the items that I want. On the other hand, please do not be careless, because I want your true impressions.

Computer-assisted Instruction (CAI) is defined as the use of the computer for direct instruction of students via drill and practice, problem-solving, tutorial or simulation techniques.

COMPUTER-ASSISTED INSTRUCTION

good	____:____:____:____:____:____:____bad	(37)
progressive	____:____:____:____:____:____:____regressive	(38)
foolish	____:____:____:____:____:____:____wise	(39)
ineffective	____:____:____:____:____:____:____effective	(40)
worthless	____:____:____:____:____:____:____valuable	(41)
important	____:____:____:____:____:____:____unimportant	(42)
beneficial	____:____:____:____:____:____:____detrimental	(43)
positive	____:____:____:____:____:____:____negative	(44)
		(45-46)

Televised courses is defined as the use of television or other telecommunication devices for direct instruction.

TELEVISED COURSES

good	____:____:____:____:____:____:____bad	(47)
progressive	____:____:____:____:____:____:____regressive	(48)
foolish	____:____:____:____:____:____:____wise	(49)
ineffective	____:____:____:____:____:____:____effective	(50)
worthless	____:____:____:____:____:____:____valuable	(51)
important	____:____:____:____:____:____:____unimportant	(52)
beneficial	____:____:____:____:____:____:____detrimental	(53)
positive	____:____:____:____:____:____:____negative	(54)
		(55-56)

Presented below is a series of perquisites associated with faculty positions. I am interested in what job attributes are <u>important to you</u>. Read the items carefully and circle the number to the response which best describes how important you perceive it is to you. Do not omit any of the statements.

(58) Administrative support (includes encouragement and support of activities)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(59) Autonomy (includes freedom in the classroom, in research and in writing)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(60) Financial support (includes salary, resources for teaching, research, and writing)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(61) Intellectual gratification (includes self-esteem, feeling of competence, sense of satisfaction with work)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(62) Interaction with others (includes interactions with colleagues, students, other professionals)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(63) Job security

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(64) Participation in decision-making (includes department educational and policy decisions, student-related matters)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(65) Professional esteem (includes prestige within the institution, community and respect from colleagues)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(66) Sense of power

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

(67) Time for scholarly productivity (includes workload reflected in amount of paperwork and take home work, number of responsibilities in job)

1-Very Important	2-Somewhat Important	3-Undecided	4-Somewhat Unimportant	5-Very Unimportant

SECTION THREE: For each of the innovations, there is a statement followed by pairs of adjectives. Please indicate your perceptions by placing a check in the space between the adjectives that best describes how you feel.

MY JOB AFTER THE INTRODUCTION OF "COMPUTER ASSISTED INSTRUCTION"

good	____:____:____:____:____:____:____	**bad**	**(1)**
progressive	____:____:____:____:____:____:____	**regressive**	**(2)**
ineffective	____:____:____:____:____:____:____	**effective**	**(3)**
worthless	____:____:____:____:____:____:____	**valuable**	**(4)**
important	____:____:____:____:____:____:____	**unimportant**	**(5)**
beneficial	____:____:____:____:____:____:____	**detrimental**	**(6)**
positive	____:____:____:____:____:____:____	**negative**	**(7)**
tense	____:____:____:____:____:____:____	**relaxed**	**(8)**
			(9-10)

Presented below is a series of perquisites associated with faculty positions. I am interested in how you perceive the following job attributes will be affected by the introduction of "computer assisted instruction". Read the items carefully and circle the number to the response which best describes the effect you feel it will have. Do not omit any of the statements.

(11) Administrative support (includes encouragement and support of activities)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(12) Autonomy (includes freedom in the classroom, in research and in writing)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(13) Financial support (includes salary, resources for teaching, research, and writing)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(14) Intellectual gratification (includes self-esteem, feeling of competence, sense of satisfaction with work)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(15) Interaction with other (includes interactions with colleagues, students, other professionals)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(16) Job security

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(17) Participation in decision-making (includes department educational and policy decisions, student-related matters)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(18) Professional esteem (includes prestige within the institution, community and respect from colleagues)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(19) Sense of power

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(20) Time for scholarly productivity (includes workload reflected in amount of paper work and take home work, number of responsibilities in job)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(21-22)

Please indicate your perceptions by placing a check in the space between the adjectives that best describes how you feel.

MY JOB AFTER THE INTRODUCTION OF "TELEVISED COURSES"

good	____:____:____:____:____:____:____ **bad**	**(23)**
progressive	____:____:____:____:____:____:____ **regressive**	**(24)**
ineffective	____:____:____:____:____:____:____ **effective**	**(25)**
worthless	____:____:____:____:____:____:____ **valuable**	**(26)**
important	____:____:____:____:____:____:____ **unimportant**	**(27)**
beneficial	____:____:____:____:____:____:____ **detrimental**	**(28)**
positive	____:____:____:____:____:____:____ **negative**	**(29)**
tense	____:____:____:____:____:____:____ **relaxed**	**(30)**

Presented below is a series of perquisites associated with faculty positions. I am interested in how you perceive the following job attributes will be affected by the introduction of "televised courses". Read the items carefully and circle the number to the response which best describes the effect you feel it will have. Do not omit any of the statements.

(31-32)

(33) Administrative support (includes encouragement and support of activities)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(34) Autonomy (includes freedom in the classroom, in research and in writing)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(35) Financial support (includes salary, resources for teaching, research, and writing)

1-Large Increase 2-Moderate Increase 3-No Change 4-Moderate Decrease 5-Large Decrease

(36) Intellectual gratification (includes self-esteem, feeling of competence, sense of satisfaction with work)

1-Large Increase **2-Moderate Increase** **3-No Change** **4-Moderate Decrease** **5-Large Decrease**

(37) Interaction with other (includes interactions with colleagues, students, other professionals)

1-Large Increase **2-Moderate Increase** **3-No Change** **4-Moderate Decrease** **5-Large Decrease**

(38) Job security

1-Large Increase **2-Moderate Increase** **3-No Change** **4-Moderate Decrease** **5-Large Decrease**

(39) Participation in decision-making (includes department educational and policy decisions, student-related matters)

1-Large Increase **2-Moderate Increase** **3-No Change** **4-Moderate Decrease** **5-Large Decrease**

(40) Professional esteem (includes prestige within the institution, community and respect from colleagues)

1-Large Increase **2-Moderate Increase** **3-No Change** **4-Moderate Decrease** **5-Large Decrease**

(41) Sense of power

1-Large Increase **2-Moderate Increase** **3-No Change** **4-Moderate Decrease** **5-Large Decrease**

(42) Time for scholarly productivity (includes workload reflected in amount of paper work and take home work, number of responsibilities in job)

1-Large Increase **2-Moderate Increase** **3-No Change** **4-Moderate Decrease** **5-Large Decrease**

(43-44)

SECTION FOUR: Presented below is a series of statements which have often been used to gather information about people's perceptions and thoughts on a number of personal and social questions. We are interested in your own opinion and not what might be considered the socially desirable answer. While a couple of the items may appear to you to be a little simplistic, please try to answer them as frankly as possible. Do not omit any of the statements. Read the items carefully and circle the number and the response which best describes how you perceive about it.

(45) 1. In this complicated world of ours, the only way we can know what's going on is to rely on leaders or experts who can be trusted.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(46) 2. My blood boils whenever a person stubbornly refuses to admit he's wrong.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(47) 3. There are two kinds of people in this world: those who are for the truth and those who are against the truth.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(48) 4. Most people don't know what's good for them.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(49) 5. Of all the different philosophies which exist in this world there is probably only one which is correct.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(50) 6. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(51) 7. The main thing in life is for a person to want to do something important.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(52) 8. I'd like it if I could find someone who could tell me how to solve my personal problems.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(53) 9. The most rewarding organizations a person can belong to are local clubs and associations rather than large nation-wide organizations.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(54) 10. Man on his own is a helpless and miserable creature.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(55) 11. Despite all the newspaper and TV coverage, national and international happenings rarely seem as interesting as events that occur right in the local community in which one lives.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(56) 12. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(57) 13. If I could do as I pleased, I would change the kind of work I do every few months.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(58) 14. Most people just don't give a "damn" for others.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(1) 15. No doubt many newcomers to the community are capable people but when it comes to choosing a person for a responsible position in the community, I prefer a person whose family is well established in the community.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(2) 16. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(3) 17. One can never feel at ease on a job where the ways of doing things are always being changed.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(4) 18. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(5) 19. The trouble with most jobs is that you just get used to doing things in one way and then they want you to do them differently.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(6) 20. Big cities may have their place but the local community is the backbone of America.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(7) 21. The present is all too often full of unhappiness. It is only the future that counts.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(8) 22. The United States and Russia have just about nothing in common.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(9) 23. I have greater respect for a person who is well established in his local community than a person who is widely known in his field but who has no local roots.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(10) 24. I would prefer to stay with a job that I know I can handle than to change to one where most things would be new to me.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(11) 25. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(12) 26. I like a job where I know that I will be doing my work about the same way from one week to the next.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(13) 27. While I don't like to admit this even to myself, my secret ambition is to become a great person, like Einstein, or Beethoven, or Shakespeare.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(14) 28. The trouble with many people is that when they find a job they can do well, they don't stick to it.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(15) 29. Even though freedom of speech for all groups is a constitutional right, some political groups abuse this freedom.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(16) 30. The job that I would consider ideal would be one where the way I do my work varies a great deal.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(17) 31. It is better to be a dead hero than a live coward.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(18) 32. When I get used to doing things in one way it is disturbing to have to change to a new method.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(19) 33. It would take a sizeable raise in pay to get me to transfer voluntarily to another job.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(20) 34. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

(21-22)

(23-24)

(25-27)

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* *

If you would like an abstract of the results of this study please check one of the appropriate boxes and fill in your address below.

_____*Yes, I would like an abstract of the results of this study.*

_____*No, I am not interested in receiving an abstract of the results of this study.*

Address: _____

_____

_____

THANK YOU FOR YOUR COOPERATION

APPENDIX C

STATUS VARIABLES

APPENDIX C

STATUS VARIABLES

Internal Formal Status

Academic Rank

Level of Instruction

Administrative Rank

Tenure

Internal Informal Status

Current role priority (research and writing, teaching, student, policy-making, community)

Desired role priority (research and writing, teaching, student, policy-making, community)

Highest degree held

Length of tenure with institution

Age

External Formal Status

Number of publications in past 5 years

Number of papers presented in past 3 years

Number of offices held in professional organizations

Current school status

External Informal Status

Parent of dependent children

Marital status

APPENDIX D

VARIABLES USED IN THE STEPWISE MULTIPLE REGRESSION

APPENDIX D

VARIABLES USED IN THE STEPWISE MULTIPLE REGRESSION

Anticipated Predictor Variables (Herr, 1986)	Dependent Variables
Age	Receptivity to computer-assisted assisted instruction
Academic Rank	
Tenure	
Length of time with Institution	Receptivity to televised courses
Administrative Rank	
Number of Publications in 5 Years	
Number of Presentations in 3 Years	
Number of Offices in Professional Organizations	
Current Role Priority (research, teaching, student, policy-making, community)	
Desired Role Priority (research, teaching, student, policy-making, community)	
Highest Degree	
Current School Status	

Dogmatism Scale Score

Trumbo Change Orientation Scale Score

Local-Cosmopolitan Scale Score

Perceived Risk (Measured from each innovation)

Computer Assisted Instruction

Televised Courses