Organizational behavior is a function of interactions among at least 3 sets of variables: (a) social, institutional, and individual values; (b) institutional goals and role expectations; and (c) individual needs and perceptions of the work environment. One problem confronting the administrator in institutions of higher education is that of understanding the perceptual base upon which institutional members act as they carry out their various tasks and role assignments. This problem is especially critical in newly emerging institutions that are composed of faculty from a variety of occupational backgrounds. The purpose of the present study is to examine a part of this larger problem by identifying the preorganizational career patterns of community college faculty in Pennsylvania and investigating the relationship between identified career patterns and faculty attitudes toward progressive and traditional educational issues. It was found that academic field, age, degree, teaching curriculum, political persuasion, father's education, professional membership, religious persuasion, sex, and number of children have a great influence on faculty views toward educational issues, in addition to the preorganizational career patterns. (Author/HS)
An Investigation of the Relationship Between Career Patterns of Pennsylvania Community College Faculty and Their Attitudes Toward Educational Issues

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Framework for Investigation

The basic conceptual notion behind this investigation is that an individual's past occupational career experiences will influence his expectations, perceptions, and attitudes toward a cognitive object which is related to his present occupational role. In this case the cognitive object is "attitudes toward educational issues." The thrust for pursuing this concept was gleaned from the writings of Kerlinger and Medsker.
Kerlinger found that occupational roles and role expectations are potent forces in influencing attitudes and attitude structure. He hypothesized that individuals having the same or similar occupational or professional roles will hold similar attitudes toward education or educational issues. To test this notion, he used education professors, liberal arts professors, and people outside the university setting, and measured their attitudes in terms of the philosophical themes of progressivism and traditionalism. The connection between occupational roles and attitudes toward education was well supported by his findings.5

Kerlinger's research has an appropriate conceptual base to guide a study of community college faculty. First, his use of occupational roles as a frame of reference can be adapted to community college faculty since they are recruited from higher and lower educational levels as well as from business or industrial positions. Second, the progressive-traditional theme seems to be alive in the community college. For example, Blocker states that community colleges have faculty members who represent a conservative academic point of view and are interested in serving the academically skilled student. Then there are those who come to the institution with a liberal point of view who are challenged by the academically deficient student and willing to break the restrictions of a curriculum handed down from a four-year institution.6 From Blocker's analysis, it seems evident that progressive-traditional attitudes are very much present among community college faculty in the forms of the defenders of the established educational order, and those who see the need for new approaches to meet new educational needs.
Hedsker in his study of the attitudes of faculty members toward their role in the two-year college presents the notion of reference group theory. According to this theory, faculty may not necessarily identify directly or primarily with the particular group of which they are a member. Specifically, faculty members may identify themselves with groups outside the college and may more readily adhere to the views of another group to which they aspire to belong. Hedsker says:

"The attitudes of junior college teachers may reflect the educational values or attitudes of teachers in four-year colleges and universities. Another possibility is that the relatively new and inexperienced teacher in the junior college will retain a close identity with the graduate school or department from which he recently came and thus visualize the role of the junior college in terms of graduate standards and procedures. Still another possibility is that junior college teachers who once taught in high school may retain that perspective after they transfer to junior college teaching. A junior college teacher may have many reference points; he may see himself through several different projections, each one of which may influence his thinking about the junior college." 7

Paramount to the notions of both Kerlinger and Medsker is the sociolization process. "Sociolization" refers to the adoption and internalization of values, beliefs, and ways of perceiving the world that are shared by a group—in other words, the process of internalizing organizational roles. 8 When an individual makes an occupational choice he internalizes the values, attitudes, and behavior patterns characteristic of the actual occupational incumbents.
Rosenberg supports this premise by stating that an individual's work tends to affect his life by requiring him to play certain roles. The individual who makes an occupational choice also commits himself to certain patterns of thought and behavior for years to come. In many cases, if the role is sufficiently internalized, it may influence his entire personality structure. 9

In summary, Kerlinger feels that if individuals are grouped according to similar occupational roles and placed into a common working environment, the effect of the socialization process will cause them to hold similar views toward a cognitive object that is related to the profession. Similarly, Medsker believes that the socialization process causes people to develop a frame of reference toward their professional roles and that this internalized frame of reference may be carried over into their next place of employment.

Career Patterns

Pre-organizational career patterns were identified by developing a typology construct with six pre-organizational career classifications; Public School (PS), Junior College (JC), Four-Year College (CO), Graduate Study (GS), Business or Industry (B & I), and Other Employment (OE).

The term "career pattern" is a developmentally oriented characterization of the work histories of individuals or groups of individuals over some period of time. Hughes states that in a highly structured society a career has two aspects, the objective and the subjective. Objectively, an individual goes through a series
of successions, offices and organizational work roles. These series of work roles represent a person's career history. The subjective or internal aspects of a person's career reflect his perception of his work life, identity, and image of self. It includes the values and aspirations that interplay in every phase of an individual's career history. Thus in Hughes' terms, a career pattern can be identified as a constructed combination of the objective career history and subjective career outlook.

Two questions were appropriately designed in order to elicit responses relating to career patterns. The first elicited information on the subject's objective career history. All respondents were asked to list chronologically all full-time jobs held and the number of years spent in each job using the six pre-organizational classifications—public school teaching, teaching in another junior college, teaching in a four-year college, full-time graduate study, business or industrial work, and other employment. The second question was designed to evoke a subjective feeling about which employment experience most influenced the individual's attitudes toward educational issues. Given the same six pre-organizational job classifications, the subjects were given the following instructions:

Thinking over your previous work experiences, which one of the positions checked in question one do you feel had the most influence on forming your present opinions toward educational issues similar to the ones asked in this section? Place an X in front of the one position in your opinion which was the most influential in forming your present opinions toward education.
The rationale for analyzing a respondent's career pattern was based on two considerations; first, the work experience that had the most influence on forming his attitudes toward education, and second, whether his full-time work experiences represented a "pure" history or a "mixed" history. Thus all respondents were placed in one of the six classifications according to their expressed subjective feeling and, based on their objective work history, given a pure or mixed career pattern.

It is important to note that when analyzing a respondent's work history, the researcher classified the respondent "pure" or "mixed" according to the number of different kinds of jobs held. For example, if an individual showed a history of work experiences in three different high schools, his career pattern was considered "pure" because his experience remained in one occupational area. On the other hand, if an individual taught in college, worked in industry and then went back into teaching in a community college, he was classified as having a "mixed" career pattern. It is also important to emphasize that all respondents were initially placed into a career pattern classification according to the work experience, (subjective outlook) they said most influenced their attitudes. The evaluation of each respondent's objective work history was a judgment made by the researcher in order to refine the classifications for purposes of analysis.
Attitudes Toward Educational Issues

When relating the concept of attitudes to community college faculty, it is important to note that attitudes have specific social referents or specific classes and they are learned through interaction with social objects and social events or situations. In the course of an individual's experience with an object, he formulates a set of evaluative concepts or beliefs. These then become relevant to the goal-striving of the individual and determine what further beliefs may be formed regarding the object.

The specific social referent considered in this study is attitudes toward educational issues, specifically those of progressivism and traditionalism. Kerlinger contends that the more one studies education, educators, and patrons of education, the more one becomes convinced of a basic division in thinking that is best expressed in the notions of progressivism and traditionalism.

The educator who is progressive emphasizes the importance of problem solving and sees education as a developmental process. The approach favors equality and warmth in inter-personal relations and takes into consideration students' interests and needs. Faculty holding this viewpoint tend to have liberal social beliefs and see education as an instrument for social change. The traditional educator places an emphasis on the importance of learning subject matter for its own sake. This approach places importance on superior-inferior relationships with considerable importance attached to the hierarchical nature of student-faculty relationships. Faculty holding this viewpoint tend to be conservative in their social beliefs and educate to preserve the status quo.
The Research Methodology

The Education Scale

Kerlinger's Education Scale VII (ESVII), a 30-item Likert-type scale with 15 progressive items and 15 traditional items, was used as the measurement inventory in this study. Kerlinger's main objective for developing ESVII was to construct a relatively short but reliable instrument containing items that were "pure" measures of progressivism and traditionalism.15

In order to discover if the Education Scale VII was a reliable and factorially valid instrument, appropriate statistical tests were performed. The statistical analysis of Kerlinger's scale with the Pennsylvania community college faculty population supported his research findings.16 Therefore, it was concluded that ESVII appeared to be a reliable and factorially valid instrument for purposes of this study.

The Research Population

The research population was taken from 10 of the 12 community colleges in Pennsylvania. The individuals studied consisted of all full-time faculty who were teaching in some phase of the comprehensive curriculum. Administrators and faculty with administrative responsibility were not included in the population.

The original research population totaled 951 full-time community college teachers. Of these, 612 or 64 percent responded to the mailed
questionnaire and 547 or 58 percent of the returns were useable. Each individual institution showed a response rate over 50 percent except for one college that totaled a 47 percent return. Because of the uncertainty of minimum cell sizes -- that is, numbers of respondents in each of the career categories -- and the expectations of less than a 100 percent questionnaire return, sampling was not done.

Since only 64 percent of the total population responded to the questionnaire, an effort was made to compare the nature of respondents to nonrespondents through a follow-up study of randomly selected nonrespondents. A t test was conducted in order to determine if the mean scores of the two groups were statistically different at the .05 level of confidence. The two groups were also compared on selected biographic characteristics.

The group mean of the nonrespondent sample did not differ significantly at the .05 level from the primary group in attitudes toward educational issues. A comparative analysis of the select biographic characteristics also showed the nature of the two groups to be very similar. Hence, it was concluded that there was good justification for generalizing the results derived from the primary population.

Hypotheses and Statistical Analysis

The relationship between pre-organizational career patterns of community college faculty and their attitudes toward educational issues was statistically measured through the following hypotheses:
Hypothesis 1: There is no statistically significant difference between the 'subjective' pre-organizational career pattern classifications of community college faculty and their attitudes toward educational issues.

Hypothesis 2: There is no statistically significant difference between the "objective" career history or the number of jobs held (pure or mixed) by community college faculty and their attitudes toward educational issues.

Hypothesis 3: There is not statistically significant interaction between pure and mixed categories and career pattern classifications of community college faculty and their attitudes toward educational issues.

In relation to the biographical information collected, no empirical corollary hypotheses were offered, but two research questions were asked:

Question 1: Is there a significant relationship between select biographic characteristics of community college faculty and their attitudes toward educational issues?

Question 2: Can select biographic characteristics be used as predictors of faculty attitudes toward educational issues?

The following variables were selected for analysis: age, sex, marital status, number of children, religious and political persuasion, father's occupation and education, mother's education, size of childhood community, academic field, teaching curriculum, salary, degree, and professional memberships.

A factorial analysis of variance program designed to handle multiple classifications with unequal cases was used to test the statistical significance of the null hypotheses, which were tested at a .05 and .01 level of significance. An omega square index was used for predicting the power of the relationship between the faculty attitudes and career pattern variables. When the analysis of variance
found significant differences between treatment group means, a multiple comparisons among means program was used to discover which groups were significantly different.

A Pearson product-moment correlation program was used to test the linear relationship between the biographical variables and attitudes toward educational issues. The research questions were tested at the .01 level of significance and significant correlation coefficients were used to discover the best individual predictor variable of faculty attitudes toward educational issues. Multiple correlation and step-up regression procedures were used to identify combinations of biographic variables that were the best predictors of the same faculty attitudes. The analysis revealed coefficients of determination for predicting the power of the relationship between the dependent and demographic variables. Finally, an analysis of covariance program was used to investigate the effects of the highest correlated demographic variables on the major independent variable, faculty career patterns.
Findings

Career Pattern and Attitude Relationships

The first hypothesis was concerned with the statistical differences between pre-organizational career patterns of community college faculty and their progressive-traditional attitude toward educational issues.

Attitude group mean scores were computed for the six career pattern groups. A one-way analysis of variance between the six career pattern mean scores revealed an F-ratio that was significant at the .01 level of confidence.

The statistical relationship between the dependent variable -- attitudes toward educational issues -- and the independent variable -- faculty career patterns -- was estimated by calculation of the omega square value. In this instance, the calculation showed that six percent of the variance in the faculty attitudes variable was accounted for by the career patterns variable. Therefore, it was implied that although a significant variation did exist between the attitudes of community college faculty in the six career pattern groups the predictive power of the association was modest, but approximated typical educational research findings.

In order to discover which groups were significantly different, Dunn's test of multiple comparison between group mean scores was performed at the .01 level of significance. The test of comparisons between group means showed that attitudes of community college faculty with the Graduate Study career pattern were significantly more progressive than faculty with either the Business or Industry, or Public School career patterns. Also, the attitudes of community college faculty with the Four-Year College career
pattern were significantly more progressive than faculty with a career
pattern representing Business or Industry. Therefore, in three cases the
null hypothesis was rejected.

The second hypothesis was concerned with the statistical differences
between the number of jobs held (pure or mixed career pattern history) by
community college faculty and their attitudes toward educational issues.

Attitude group mean scores were computed for the pure and mixed career
pattern categories. A t test was then conducted to measure attitude differen-
tces between the two groups. The analysis showed that the mean differences
for the pure and mixed career pattern groups was not significant at the .05
level of confidence. Therefore, in this case the null hypothesis was re-
tained. The attitudes of community college faculty toward the educational
issues do not vary when considering number of jobs held.

The final hypothesis concerned itself with the statistically signifi-
cant interaction between the pure and mixed categories as they related
to the six career pattern classifications of community college faculty and
their attitude toward educational issues.

A two by six factorial analysis of variance was conducted between the
mean scores of the pure and mixed categories and the six career pattern groups.
The analysis computed an F-ratio that was not significant at the .05 level
of confidence. The factorial analysis of variance indicated that variation
in attitudes did not exist when the number of jobs held was combined with
a person's career pattern classification. Therefore, in this case the null
hypothesis was retained.
Biographical and Attitude Relationships

The second part of the investigation measured the relationship between select biographical characteristics of community college faculty and their attitudes toward educational issues. The predictive power of the biographic variables was also investigated.

In order to measure the relationship between the select biographic variables and the dependent variable, zero order correlations were computed at the .01 level of significance. A coefficient of +.110 was required. (The low correlations required for significance is, of course, a function of the large sample size and should be interpreted accordingly.) The analysis showed that for 10 of the 15 variables there was a significant relationship at the .01 level.

According to the analysis, a faculty member with progressive attitudes toward educational issues can be characterized as follows: a young female with a small family; non-Protestant with liberal political views and a father with a high degree of education; most likely teaching in the social sciences or humanities rather than the sciences or technical areas; in a college-transfer program as opposed to a vocational-technical program; has an advanced degree and belongs to one or more professional organizations related to higher education such as the American Association of University Professors, the American Association of Higher Education, the National Faculty Association for Community Junior Colleges or the American Federation of Teachers.

The variable academic field (r = .330) had the highest correlation with the faculty attitude variable. The amount of variance accounted for
by this correlation was 10.8 percent ($r^2 = .108$) of the variance. This indicated that a faculty member's academic field was the strongest predictor of attitudes toward the educational issues.

The variable age ($r = -.295$) had the next highest correlation with the dependent variable. The amount of variance accounted for by this correlation was 8.7 percent ($r^2 = .087$) of the variance. In general, the eight remaining variables were of less value in predicting faculty attitudes toward educational issues.

A multiple regression analysis was also performed to discover if the predictive power of all 15 biographic variables -- including the five not found significant -- could be improved by considering them together. The highest correlated biographic variable with the faculty attitude variable and the first to enter the regression equation was a faculty member's academic field. The correlation coefficient was .33 and the fraction of explained variance amounted to 10 percent. Of the remaining 14 variables, 6 entered the regression analysis: age, degree, professional membership, sex, politics, and father's education. For these six variables plus academic field, the multiple correlation coefficient was .48, which accounted for 23 percent of the variance.

The regression analysis terminated after the seventh step because the addition of the remaining variables failed to significantly increase the multiple correlation coefficient. From these findings, it was concluded that the biographic variables were limited in their collective ability to predict community college faculty attitudes toward educational issues.
The correlational findings associated with the secondary research questions motivated one additional analysis. Of the 15 biographic variables, academic field and age had the highest correlation with faculty attitudes toward educational issues. It was also noted that there were distinct differences in the academic fields and ages in the two career pattern groups. Community college faculty in the Graduate Study career groups who were the most progressive in their attitudes proved to be the youngest group of faculty with 54 percent below 30. Sixty-six percent of them also taught in the social sciences, humanities and related areas. Faculty in the Business or Industry career groups who were the most traditional in their attitude pattern had 53 percent above 39 years of age and were the oldest group of faculty. Sixty-five percent taught in the vocational, natural science and related areas. Because of these findings it was advisable to investigate the independence of these two variables from the major independent variables -- pre-organizational career patterns of community college faculty. The question was asked: Are faculty attitudes toward educational issues influenced by career patterns or is it the confounding effect of a person's academic field and age?

An analysis of covariance program disclosed that the academic field and age were independent of career patterns. The analysis produced F-ratios that were significant at the .01 level. The F-ratio for the covariance analysis with academic field was 5.39. An omega square index showed that when academic field was held constant, career pattern accounted for four percent of the variance in the academic field variable. The F-ratio for the covariance analysis with age was 5.12, and again an omega square index showed that the career pattern variable accounted for only four percent
of the variance in the age variable.

Thus, the analysis of covariance revealed that the variables academic field and age were not confounding the relationship between the career patterns and faculty attitudes. The results from these findings gave added support to the major and earlier findings of this investigation that pre-organizational career patterns of community college faculty are significant but modest predictors of attitudes toward progressive-traditional educational issues.
Discussion

The investigation found that differences in attitudes toward progressive-traditional educational issues do exist among community college faculty with different pre-organizational career patterns.

Community college faculty who felt their Graduate Study career experience had the greatest influence on forming their attitudes toward educational issues were significantly more progressive in their attitudes than faculty with Public School or Business or Industry career experiences. Faculty with Four-Year College career experience were significantly more progressive in their attitudes than faculty members with a Business or Industry career experience. All findings were statistically significant at the .01 level.

The investigation also found that ten other faculty characteristics correlated significantly with attitudes toward educational issues, they included academic field, age, degree, teaching curriculum, political persuasion, father’s education, professional membership, religious persuasion, sex and number of children. Interpretation showed that community college faculty who were young, had small families, of a non-Protestant religious persuasion and with liberal political views tended to be more progressive in their attitudes toward the educational issues. They were also from families with well-educated fathers, had pursued graduate work, taught social sciences or humanities courses in the college transfer program and belonged to a national higher education organization.

Although these 10 faculty characteristics correlated significantly with attitudes, further statistical analysis showed that faculty career experiences proved to be the best and most significant single predictor
of these attitudes. This finding added support to and reinforced the notion that an individual's previous employment experience is a factor in developing attitudes that will carry over into a new working environment. Therefore, the pre-organizational career patterns of community college faculty tends to be a significant but modest independent predictor of attitudes toward progressive-traditional educational issues.

The educational philosophy expressed by faculty should be of concern to community colleges. These institutions have been founded on open, liberal lines, where according to many, a student orientation (progressive attitude), should take precedence over a subject orientation (traditional attitude). Whether faculty not only verbally agree with this philosophy, but actually put it into practice in the classroom, is an important issue. There have been many indications that the varied backgrounds of community college faculty have an effect on whether or not faculty members truly adhere to the progressive philosophy of the institution.

It is important to remember that this investigation asked community college faculty to respond to issues that represented a personal commitment to broad educational ideas -- ideas that would pervade a teacher's classroom behavior no matter what kind of a school he found himself in. The significance rests in the way faculty members respond to issues that related to the nature of teaching; how subject matter should be presented; the attention given to the needs and interests of students; and the role of education in today's society. All have a direct influence on the achievement of the progressive educational aims and objectives of the community college. Yet, faculty members holding
progressive philosophies toward these issues could quite possibly be in the minority in a given institution. Consequently, there could be a conflict between the actual teaching taking place in the classrooms and the learning environment community colleges desire to create.

From the findings of this study, it appears that faculty members in the Graduate Study and Four-Year College career pattern groups expressed attitudes toward educational issues that had the strongest congruence with faculty role expectations set forth by the community college. These faculty members agreed with issues that reflected upon education as a growth and problem-solving process based on the interest and needs of students, and they expressed concern for inter-personal relations and change through mutual interaction. Yet, faculty in these two groups represented only 22 percent of the population.

Faculty in the Public School and Business or Industry career groups were significantly more traditional in their responses to the educational issues. They felt the mastery of academic material to be more important than the pragmatic problem-solving approach. Their view of education tended to be more narrow with a lack of interest in personal development. The hierarchical position of the teacher was also thought more important than mutual respect and interaction. Faculty in these two groups represented 57 percent of the population.

In the final analysis it is evident that the proper selection of faculty is the most crucial problem facing community colleges. But, recruitment is not an easily solved problem. There are the demands imposed by the tasks of recruiting for rapidly expanding faculties, there are the shortages of properly trained personnel to teach in
these colleges, as well as a comprehensive curriculum that has called for people from diverse occupational areas. It has long been recognized that traditional graduate schools are not well suited to some of the special vocational-traditional needs of the community college. Yet, if these institutions are attempting to move closer to the achievement of their stated mission, these problems must be faced head-on.

The results of this study have revealed that a faculty member's career pattern is an important factor to consider when thinking about the congruence between educational attitudes of faculty and the educational objectives of the institution. If faculty are the prime movers for the achievement of institutional objectives, there is little doubt that the objectives of the community colleges in Pennsylvania, as well as other states, will be reflected and achieved through expressed faculty attitudes. Thus, the findings from this investigation have pointed out that there may be more to the achievement of educational goals than just a general agreement that they are good and appropriate to the educational needs of the times. The commitment must come alive through the basic philosophies and life styles of the faculty who attend to the classrooms.
References

1. "Pre-organizational career Patterns" is a characterization of an individual's work experiences over some period of time before entrance into present teaching position.

2. "Attitudes toward educational issues" represent the dimensions of Kerlinger's Education Scale VII. Progressive attitudes are characterized by statements indicating an emphasis on problem solving, education as growth, students' interests and needs, equality and warmth in inter-personal relations, internal discipline and liberal social beliefs that emphasize education as an instrument of social change. Traditional attitudes are characterized by statements indicating an emphasis on subject matter for its own sake, impersonal superior-inferior relationships based on hierarchy, external discipline and conservative social beliefs and preserving the status quo.


11. For a complete description of the questionnaire, methodology, and statistical analysis used in this investigation see: Robert A. Patterson, Career Patterns and Educational Issues (University Park, Pennsylvania: Center for the Study of Higher Education, May, 1971).


17. Full-time graduate study was treated as a career experience since it is considered as a necessary step to the collegiate teaching profession and since some faculty had never held a previous assignment.