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## ABSTRACT

Twelve learner characteristics and 26 demographic characteristics of entering preservice teachers were investigated to determine if the presumption of homogeneity was valid in relation to selected learner characteristics and to discover which, if any, demographic characteristics could serve as predictors of learner characteristics. The study also laid the groundwork for a series of trait-treatment studies. During the fall of 1974, 400 Indiana University students, randomly selected from a total of 700 registering for an education course, were asked to complete a questionnaire packet including four instruments: (1) a survey of background information; (2) a measure of interpersonal needs; (3) a measure of attitude toward open and traditional education; and (4) a measure of perception of the role of the teacher. The findings suggest that while entering preservice teachers exhibit variance in the learner characteristics of interpersonal need, attitude towards open and traditional education, and perception of teacher role, this variance is not related to the background characteristics surveyed. Background characteristics, therefore, are poor predictors of the learner characteristics of entering preservice teachers. While there are some apparent exceptions, the considerable variance found in the learner characteristics suggests that the presumption of homogeneity implied in current teacher education practices is largely unfounded. This variance suggests that uniform modes of teacher education need to be seriously reexamined and, specifically, that teacher education would profit from individualized practices. (MM)

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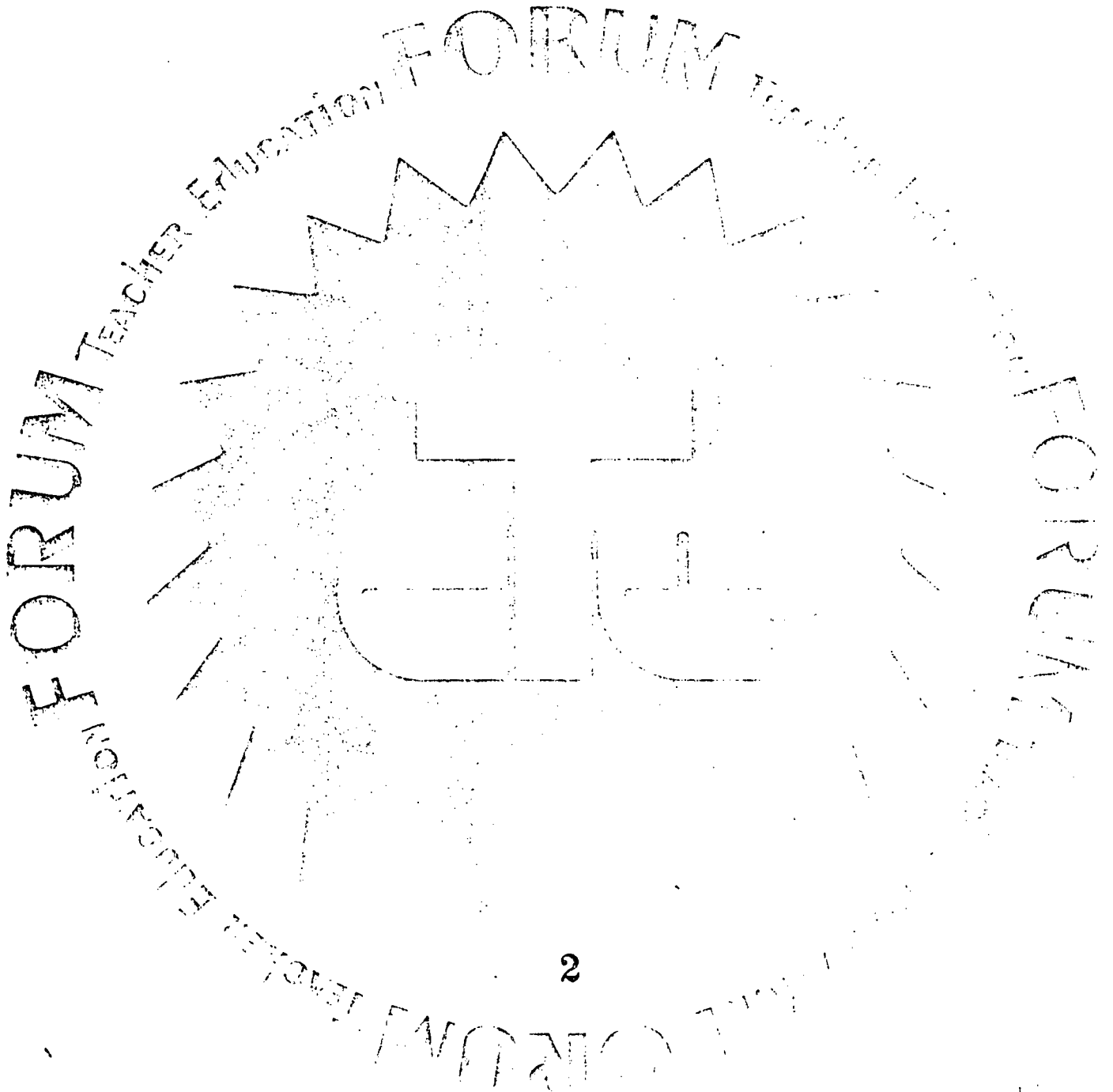
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SELECTED CHARACTERISTICS OF  
PRESERVICE TEACHERS AS LEARNERS

SUE MARKS  
THOMAS B. GREGORY

*division of teacher education  
323 education building  
indiana university  
bloomington, indiana 47401*

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Preservice teachers have long been investigated as potential professionals. Studies of their personality traits, teaching characteristics, and comparisons of these traits with those of inservice teachers abound in the literature.<sup>1</sup> Among these numerous studies of even more numerous traits, one area stands, until recently at any rate, strangely neglected; almost all of the studies of preservice teachers' characteristics as learners (Sue Marks and Marker (1975) have noted, preservice students; all students have taken a foundations course, one or more methods courses and student teaching. In fact, preservice students have even taken the same courses taught in essentially the same way. Even with diversified teacher education programs such as those of the Division of Teacher Education at Indiana University, one finds that these specialized programs often appear to consider their students as a mass possessing little heterogeneity. That much of the content teacher educators attempt to teach their "masses" centers on individualization, consideration of the needs of their students, accommodation, and capitalization upon the diversity within a classroom strikes us as ironic.

This study investigated 12 learner characteristics and 26 demographic characteristics of entering preservice teachers to determine if this presumption of homogeneity among teacher education students was valid on selected learner dimensions.<sup>2</sup> If it was not valid (that is, if appreciable variance was evidenced) what demographic characteristics, if any, were related strongly enough to the learner characteristics to allow them to serve as predictors of the characteristics? Another way of viewing the study is that it would lay the groundwork for a series of trait-treatment interaction (TTI) studies.

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SUE MARKS is lecturer in elementary education, University of Illinois at Champaign-Urbana and coordinator of the Washington School Teacher Education Center, Champaign Community Schools. THOMAS B. GREGORY is associate professor of education and associate director for program development, Division of Teacher Education, Indiana University-Bloomington.

### Method

During the fall, 1974 registration at Indiana University, 400 students randomly selected from a total population of approximately 700 registering for Education F-200: Examining Self as Teacher were asked to complete a questionnaire packet and return it to their F-200 instructor at the first meeting of the class. Of these 400, 226 students (56.6 percent) returned usable packets. The questionnaire packet included 4 instruments: Background Survey (Marks, 1973), FIRO-B (Schultz, 1967: a measure of interpersonal needs), ATOTE (Evans, 1971: a measure of attitude toward open and traditional education), and TPQ (Sorenson and Yu, 1962: a measure of perception of the role of teacher). Although some of the background items, interpersonal needs, attitudes, and perception of the teacher's role used had been theoretically and/or empirically related to the learning process, only the TPQ had been used with preservice teachers. The data were analyzed by chi-square/contingency coefficient, correlation, stepwise multiple regression, and factor analysis (using a principal factor analysis with binormal rotation). Both chi-square and correlational procedures were necessary to properly analyze the data since both categorical and continuous variables were used in the Background Survey.

### Findings

The demographic description of the entering preservice teachers is presented in Table 1. Individual variables are described fully in the original report of this study.

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Insert Table 1 about here

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<sup>1</sup>Some notable examples are Lippman (1965), Hart (1969), Kosier and DeVault (1967).

<sup>2</sup>This paper reports part of the results of the principal author's unpublished doctoral dissertation entitled A Description of Selected Characteristics of the Preservice Teacher as Learner, Indiana University, 1975.

Table 1  
Basic Descriptive Data For  
Background Characteristics  
(N = 224)

| Variables                      | N   | %     |
|--------------------------------|-----|-------|
| Sex (N = 223)                  |     |       |
| male                           | 59  | 26.5  |
| female                         | 164 | 73.5* |
| Age (N = 223)                  |     |       |
| 18 or less                     | 27  | 12.1  |
| 19-20                          | 159 | 71.3* |
| 21-22                          | 21  | 9.4   |
| 23+                            | 16  | 7.2   |
| Children (N = 221)             |     |       |
| 0                              | 210 | 95.0  |
| 1                              | 7   | 3.2   |
| 2                              | 3   | 1.4   |
| 3+                             | 1   | 0.5   |
| Class (N = 223)                |     |       |
| freshman                       | 17  | 7.6   |
| sophomore                      | 127 | 57.0* |
| junior                         | 62  | 27.8  |
| senior                         | 17  | 7.6   |
| graduate                       | 0   | 0     |
| Ethnic group (N = 222)         |     |       |
| European                       | 166 | 74.8* |
| Asian                          | 2   | .9    |
| Afro                           | 11  | 5.0   |
| Spanish-American               | 9   | 4.1   |
| other                          | 34  | 15.3  |
| Major Wage Earner (N = 217)    |     |       |
| professional                   | 58  | 26.7* |
| business                       | 59  | 27.2* |
| sales                          | 21  | 9.6   |
| clerical                       | 8   | 3.7   |
| farm-factory worker            | 48  | 22.1  |
| service worker                 | 12  | 5.5   |
| farmer                         | 11  | 5.0   |
| Father's education (N = 221)   |     |       |
| less than high school diploma  | 36  | 16.3  |
| high school                    | 44  | 19.5* |
| some college                   | 32  | 14.4  |
| post high school - non college | 23  | 10.4  |
| college degree                 | 39  | 17.6  |
| some graduate school           | 6   | 2.7   |
| masters                        | 19  | 8.6   |
| doctorate                      | 23  | 10.4  |

Table 1 (Cont'd)

| Variables                                 | N   | %     |
|---|-----|-------|
| Mother's education (N = 221)              |     |       |
| less than high school diploma             | 30  | 13.6  |
| high school                               | 81  | 36.7* |
| some college                              | 37  | 16.7  |
| post high school - non college            | 19  | 8.6   |
| college degree                            | 31  | 14.0  |
| some graduate school                      | 7   | 3.2   |
| masters                                   | 16  | 7.2   |
| doctorate                                 | 0   | 0     |
| High school size (N = 221)                |     |       |
| 200 or less                               | 9   | 4.1   |
| 201-1000                                  | 90  | 40.9* |
| 1001-2000                                 | 51  | 23.2  |
| 2001 or more                              | 71  | 31.8  |
| High school grade point average (N = 222) |     |       |
| 2.5 or less                               | 12  | 5.4   |
| 2.51-3.0                                  | 64  | 29.0  |
| 3.01-3.5                                  | 83  | 37.5* |
| 3.51-4.0                                  | 62  | 28.1  |
| Kind of high school (N = 222)             |     |       |
| city public                               | 99  | 45.5* |
| rural consolidated                        | 36  | 16.1  |
| rural                                     | 11  | 5.0   |
| suburban                                  | 57  | 25.7  |
| parochial                                 | 14  | 6.3   |
| private                                   | 5   | 2.3   |
| Liking of high school (N = 222)           |     |       |
| very well                                 | 95  | 42.8  |
| reasonably well                           | 100 | 45.0* |
| not very well                             | 22  | 9.9   |
| not at all                                | 5   | 2.3   |
| Experience with children (N = 221)        |     |       |
| a lot                                     | 115 | 52.0* |
| some                                      | 91  | 41.2  |
| not very much                             | 13  | 5.9   |
| little                                    | 2   | .9    |
| Experience with teaching (N = 222)        |     |       |
| a lot                                     | 47  | 21.1  |
| some                                      | 98  | 44.1* |
| not very much                             | 42  | 18.9  |
| little                                    | 35  | 15.8  |



Table 1 (Cont'd)

| Variables   | N   | %     |
|---|-----|-------|
| Travel (N = 223)  |     |       |
| a lot   | 108 | 48.4* |
| some  | 88  | 39.5  |
| not very much   | 22  | 9.9   |
| little  | 5   | 2.2   |
| Time out (N = 223)  |     |       |
| none  | 180 | 80.7* |
| 1 year or less  | 18  | 7.6   |
| 1-3 years   | 17  | 7.6   |
| 3 years or more   | 9   | 4.0   |
| Certainty of teaching (N = 223)   |     |       |
| very  | 90  | 40.4* |
| reasonably  | 89  | 39.9* |
| not very  | 35  | 15.7  |
| none  | 9   | 4.0   |
| Level of teaching (N = 222)   |     |       |
| K-3   | 31  | 13.9  |
| 4-6   | 23  | 10.3  |
| junior high academic  | 9   | 4.0   |
| junior high nonacademic   | 7   | 3.1   |
| senior high academic  | 78  | 35.1* |
| senior high nonacademic   | 33  | 14.9  |
| special education<br>(emotionally disturbed<br>and learning disability) | 10  | 4.5   |
| special education<br>(mental retardation)                               | 5   | 2.2   |
| Speech and hearing  | 9   | 4.0   |
| all level special<br>subjects   | 18  | 8.1   |
| Certainty of level (N = 222)  |     |       |
| very  | 110 | 49.5* |
| reasonably  | 87  | 39.2  |
| not very  | 22  | 9.9   |
| uncertain   | 3   | 1.3   |
| Preferred teaching site (N = 217)                                       |     |       |
| inner city  | 23  | 10.6  |
| town  | 60  | 27.6  |
| suburban  | 73  | 33.6* |
| rural   | 37  | 17.1  |
| American Indian   | 4   | 1.8   |
| special institution   | 20  | 9.2   |

Table 1 (Cont'd)

| Variables                                | N   | %     |
|--|-----|-------|
| College grade point average<br>(N = 215) |     |       |
| none                                     | 17  | 7.9   |
| 2.0 or less                              | 10  | 4.7   |
| 2.01-2.5                                 | 32  | 14.7  |
| 2.51-3.0                                 | 69  | 32.1* |
| 3.01-3.5                                 | 58  | 27.0  |
| 3.51-4.0                                 | 29  | 13.3  |
| Liking of College (N = 214)              |     |       |
| very well                                | 109 | 50.9* |
| reasonably well                          | 98  | 45.8  |
| not very well                            | 7   | 3.3   |
| not at all                               | 0   | 0     |

### Interpretation of Results

In a number of ways the data in Table 1 support the past assumption of homogeneity of preservice teachers, at least in regard to some demographic characteristics; a picture of a typical preservice teacher emerges easily from the data. Portraying this "average" preservice teacher can be dangerous and misleading if it unduly reinforces notions of homogeneity, but such a picture is also useful because it is concrete. Describing the "average" entering preservice teacher is an expeditious way to make a complex set of variables comprehensible, sufficiently expeditious we judged to risk the dangers inherent in the approach.

The student entering Indiana University's teacher education program was likely to be a sophomore (57.0 percent), female (73.5 percent), age 19-20 (71.3 percent), having no children (95.0 percent). S/he has taken no time out of school (80.7 percent). S/he was likely to be of European ethnic origin (74.8 percent), from a professional (26.7 percent), business (27.2 percent), or farm-factory worker (22.1 percent) home. Her/his father might as likely be a high school dropout (16.3 percent, or a high school graduate (19.5 percent), as a college graduate (17.6 percent). Her/his mother is most likely to have a high school education (36.7 percent).

The entering preservice teacher was likely to have attended either a relatively small high school of 201-1000 (40.9 percent) or a very large one of 2001 or more (31.8 percent), in a city (45.5 percent) or suburb (25.7 percent). Her/his high school grade point average was most likely to be between 3.01 and 3.50 (37.5 percent) although nearly as many were between 2.51 and 3.00 (29.0 percent) or between 3.50 and 4.00 (28.1 percent). The entering preservice teacher liked high school very much (42.8 percent) or reasonably well (45.0 percent).

The entering preservice teacher reported having much (52.0 percent) or at least some (41.2 percent) experience with children. S/he had some

experience with teaching (44.1 percent) and much (48.4 percent) or some (39.5 percent) travel experience.

Table 1 also indicates that the entering preservice teacher was very certain (40.4 percent) or reasonably certain (39.9 percent) of teaching as the career for her/him and very certain (49.6 percent) or reasonably certain (39.2 percent) of the level at which s/he will teach. S/he intends to teach a high school academic subject (34.7 percent) and would like to teach in a suburb (33.6 percent) or small town (27.6 percent).

The college grade point average of the entering preservice teacher was between 2.51 and 3.00 (32.1 percent) or between 3.01 and 3.50 (27.0 percent), somewhat lower than her/his high school grade point average. The entering preservice teacher's attitude toward college is positive (50.9 percent) or somewhat positive (45.7 percent), similar to the attitude s/he had toward high school.

A description of the characteristics of the entering preservice teachers as learners is presented in Table 2.

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Insert Table 2 about here  
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Table 2 indicates that the entering preservice teacher has moderately high needs to include others, either high or low needs to be included (one of the few variables yielding relatively high disagreement), low needs to control others or to be controlled, moderate needs to give affection, and moderate to high needs to receive affection. In summary, entering preservice teachers exhibit considerable variance in their interpersonal needs.

Entering preservice teachers' attitudes toward both open and traditional education are generally moderate but display considerable variance, ranging from very low to high scores.

Table 2  
Basic Descriptive Data For  
Personal Characteristics  
(N = 224)

| Variables  | Range | Mode | N   | $\bar{X}$ | SD   |
|--|-------|------|-----|-----------|------|
| <u>Personal - interpersonal needs</u>                            |       |      |     |           |      |
| Expressed inclusion  | 0-9   | 7    | 214 | 5.26      | 1.99 |
| Wanted inclusion   | 0-9   | 9    | 212 | 5.18      | 3.28 |
| Expressed control  | 0-9   | 2    | 214 | 2.42      | 2.04 |
| Wanted control   | 0-9   | 2    | 214 | 3.51      | 2.32 |
| Expressed affection  | 0-9   | 5    | 209 | 4.62      | 2.54 |
| Wanted affection   | 0-9   | 9    | 211 | 5.82      | 2.62 |
| <u>Personal - attitude toward open and traditional education</u> |       |      |     |           |      |
| ATOTE  | 3-36  | 15   | 220 | 18.3      | 5.91 |
| <u>Perception of role of teacher</u>                             |       |      |     |           |      |
| Advice-information giver   | 0-14  | 8    | 224 | 7.58      | 3.46 |
| Counselor  | 0-19  | 10   | 224 | 9.88      | 4.78 |
| Disciplinarian   | 0-15  | 3    | 224 | 3.28      | 2.68 |
| Referrer   | 0-9   | 3    | 224 | 1.90      | 1.69 |
| Motivator  | 0-9   | 6    | 224 | 4.95      | 2.31 |

The entering preservice teacher perceives the teacher's role to be (moderately) an advice-information giver and (moderately) a motivator; both of these variables yielded comparatively large variances. S/he also sees the teacher as (somewhat less) a counselor, and (very little) as a disciplinarian or referrer. In summary, considerable variability is evident in the perceptions of the teacher's role held by entering preservice teachers.

Although the learner characteristics did exhibit considerable variance, efforts to find important relationships ( $r_{\geq \pm .40}$ ) with background characteristics were generally fruitless.

The search revealed the following significant ( $p \geq .01$ ) findings:

Females had higher needs to include others and lower needs to control others than did males;

students from professional families had low needs to be included; those from business families had moderate needs to be included; and those from farm or factory families had high needs to be included;

students from suburban, private, and parochial high schools had higher needs to show affection than did students from urban or rural schools;

students who perceived themselves to have "a lot" of experience with children had more positive attitudes toward open and traditional education and moderate perceptions of the teacher as advice and information giver than did students with less experience; and

students who perceived themselves to have "a lot" of experience with travel have more moderate perceptions of the teacher as disciplinarian than did students with less travel experience.

The number of relationships between background characteristics and learner characteristics was not significant according to the criteria proposed by Sakoda, Cohen, and Beall (1954). Further, the regression analysis and factor analysis findings verified this lack of meaningful relationships.

### Implications

The findings of this study suggest that while entering preservice teachers exhibit variance in the learner characteristics of interpersonal need, attitude toward open and traditional education, and perception of the teacher role, this variance is not related to the background characteristics measured in this study. Background characteristics are therefore poor predictors of the learner characteristics of entering preservice teachers.

While there are some apparent exceptions, the considerable variance found in the learner characteristics of entering teacher education students suggests that, at least in this realm, the presumption of homogeneity implied in present teacher education practices is largely unfounded. This variance suggests that uniform modes of teacher education need to be seriously re-examined.

Students do not vary systematically by grade point average, intended teaching level, intended teaching site, perceived experience with teaching, all of which have been used as admissions criteria to teacher education programs. This study did not try to determine their potential as predictors of success (i.e., how well a person will learn) in a program, but its findings do deny their usefulness as indicators of how a person will best learn; such criteria have little, if any, diagnostic value.

Current teacher education practices and, more importantly, proposals for new programs tend to include lock-step course work or competency based modules. Given the findings of this study the competency based module approach may be the more sensible, but only if it goes beyond mere lip service to individualization. While we have other concerns about the competency module approach, it does provide the opportunity to accommodate student learner differences better than standard course sequences, at least as they are usually conceived.

Early field experiences, that is, experiences in public school settings prior to student teaching, tend to be required with increasing frequency in

teacher education programs. The findings from this study indicate that students enter teacher education with differing perceptions of the amount of experience they have had with children and with teaching. We believe that these differences in perceptions of experience, both acting alone and interacting with differing skill levels suggest the need for variable forms, pacing, and sequencing of field experiences. For example, that fifth of the students who perceive themselves to have a lot of teaching experience may well profit more from nonfield experience teacher education practices or from field experiences which differ strongly from those which they have already had than they will from experiences similar to those they have already had.

The results also suggest that recruiting practices and admission policies need to be re-examined. The entering population consists of white female school achievers. The greater the degree of school achievement, the greater the probability that the entering preservice teacher is white and female. Since there is little indication that sex, ethnic origin, or school achievement contribute significantly to learner characteristics, and since it appears to be desirable to provide male and multi-ethnic teacher models, both the nature of our efforts to attract people to the profession and the policies which govern their admission into post high school education need to be re-considered. Public school teaching has had the reputation of being one of the major gateways to the social mobility ladder, especially for men. Higher tuition, more stringent (and, as suggested by this study, perhaps arbitrary) admissions criteria, and underdeveloped recruiting practices all point toward a professional that will continue to be white and female.

Further, those who are developing admissions policies which include prior experiences as necessary achievements should note that students who have greater perceived amounts of experience differ from those who have lesser amounts of perceived experiences in their need to include others and, with



The amount of variance in learner characteristics suggests that teacher education would profit from individualized practices. The directions in which individualization should proceed would best be identified by a series of trait-treatment interaction studies. TTI comparisons suggested by this study's findings as having the best potential for bearing fruit would include small group vs. large group instruction, experiential vs. didactic approaches, on-site vs. off-site programs, and verbal vs. nonverbal instructional modes. Each of these treatments may suit special kinds of learners, instructors, and instructional goals. The procrustean bed of uniform instruction does not appear to do much but develop yet more teachers who feel comfortable building yet more procrustean beds.

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