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## ABSTRACT

This study investigated whether or not selected academic ability indices and personal characteristics of 65 teachers (all were Bowling Green State University teacher candidates who began their teacher training in 1985 and who by June 30, 1989 had completed their first year of full-time classroom teaching) were associated with longitudinal changes in their attitude toward teaching measured upon the commencement of training, after student teaching, and near completion of their first year of full-time teaching. One- and two-factor repeated measures ANOVA procedures revealed that the average attitude toward teaching of the neophyte teachers did not differ at these three points in teacher development; that university grade point average, American College Test scores, Comprehensive Test of Basic Skills scores, and student teacher performance ratings were not associated with their attitude toward teaching; but that Rotter's locus of control, Myers-Briggs Type Indicators, gender, grade level of instruction, earliness of their decision to choose teaching as a career, and perceptions of the quality of their training were each associated with the teachers' attitude toward teaching.  
 (Author/JD)

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Factors Associated with Longitudinal Changes in  
Teachers' Attitude Toward Teaching During Training and  
the First Year of Teaching

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## Abstract

The purpose of this study was to investigate whether or not selected academic ability indices and personal characteristics of 65 teachers were associated with longitudinal changes in their attitude toward teaching measured upon the commencement of training, after student teaching, and near completion of their first year of full-time teaching. One- and two-factor repeated measures ANOVA procedures revealed that the average attitude toward teaching of the neophyte teachers did not differ at these three points in teacher development; that university grade point average, American College Test scores, Comprehensive Test of Basic Skills scores, and student teacher performance ratings were not associated with their attitude toward teaching; but that Rotter's locus of control, Myers-Briggs Type Indicator, gender, grade level of instruction, earliness of their decision to choose teaching as a career, and perceptions of the quality of their training were each associated with the teachers' attitude toward teaching.

Factors Associated with Longitudinal Changes in  
Teachers' Attitude Toward Teaching During Training and  
the First Year of Teaching

The research findings related to the impact of teacher training and of early teaching experiences upon teachers' attitude toward teaching are conflicting at best (Hersh, Hull, & Leighton, 1982; Zeichner, 1980). Some researchers have described the impact of teacher training experiences upon prospective teachers as moving them from early formalized and rigid attitudes toward teaching to a more liberal, democratic, and humanistic attitude about teaching but returning them to the more rigid and control-oriented attitude following student teaching and early teaching responsibilities (Callahan, 1980; Hoy & Woolfolk, 1990; Jacobs, 1968; Lipka & Garlet, 1981); whereas other researchers have suggested that the early teaching experiences simply lead to teacher candidates' conformity to the conservative behavior norms of school bureaucracy (Hoy & Rees, 1977).

Some researchers using cross-sectional samples have found no overall change in a high positive attitude toward teaching through preservice education and the initial five years of teaching (Marso & Pigge, 1989), but other researchers have reported that prospective teachers' overall positive attitude

toward teaching and pupils becomes even more positive during student teaching (Paschal & Trelor, 1979; Sandgren & Schmidt, 1956).

Zeichner (1980), in attempting to account for contradictions in the research findings related to the impact of early teaching experiences upon attitude toward teaching, suggested that initial teaching experiences have a varied impact upon different individuals and that this impact is neither totally positive nor totally coercive. Relatedly, Tabachnick and Zeichner (1984) concluded that the impact of early teaching experiences upon neophyte teachers is influenced by both characteristics of the prospective teachers and characteristics of the school settings providing such early teaching experiences.

Pollard (1982) and Carroll (1981) have described some of the individual prospective teacher characteristics and some of the school characteristics which influence the socialization of neophyte teachers. Individual inputs include such factors as extent of training, personal lifestyle, past experiences, and knowledge of subject matter. School setting characteristics include such factors as extent of support from the principal, guidance provided by teacher colleagues, and the appropriateness of the first teaching assignment. Relatedly, researchers have reported that changes in prospective teachers' attitude toward

teaching is influenced by personal attributes such as gender and grade level of instruction (Villeme & Hall, 1980; Pigge & Marso, 1987), and Dispoto (1980) concluded that teacher educators need to pay more attention to affective variables in selecting students and planning teacher training experiences.

The purpose of the present study was to ascertain whether or not selected academic ability indices and personal characteristics of teachers were associated with longitudinal changes in their attitude toward teaching as they progressed through their teacher training and their first year of teaching. More specifically this study was designed to test the following hypotheses: 1) The teachers' attitude toward teaching as a career will not change as they progress from the commencement of teacher training, to the completion of student teaching, and to the culmination of their first year of full-time teaching. 2) The teachers' attitude toward teaching as a career will not be related to their academic ability as indicated by their: student teaching performance ratings, university grade point averages, American College Test (ACT) scores, and Comprehensive Test of Basic Skills (CTBS) scores. 3) The teachers' attitude toward teaching as a career will not be related to their personal attributes as indicated by their: gender, grade level of instruction (elementary and secondary), earliness of their decision to choose teaching as a career (prior to, during, or

after high school), perception of the quality of their university training, personality type (Myers-Briggs Type Indicator), and locus of control orientation (Rotter's internal or external).

#### Method

The subjects for this longitudinal study consisted of 65 Bowling Green State University (BGSU) teacher candidates who began their teacher training in 1985 and who by June 30, 1989 had completed their first year of full-time classroom teaching. These neophyte teachers had completed the Attitude Toward Teaching as a Career Scale (Merwin & DiVesta, 1959) at the commencement of teacher training, following student teaching, and near the end of their first year of full-time teaching. This attitude scale provides a single score from 11 items responded to on a continuum from strongly disagree (1) to strongly agree (6). Merwin and DiVesta (1959) reported a test-retest coefficient of reliability of .79 for the scale and construct validity evidence in the form of a significant difference in attitude between students having and not having selected teaching as a career.

In addition, the following qualitative and quantitative data for this sample were gathered: American College Test (ACT) and Comprehensive Test of Basic Skills (CTBS) composite scores, university grade point average, Rotter's (1966) locus of control

classifications, university supervisors' ratings of their student teaching performance, Myers-Briggs Type Indicator classifications (Myers & McCaulley, 1985), gender, grade level of instruction, when they had decided to become a teacher, and their evaluations of the training they received at BGSU.

The collected data was then used in one- and two-factor repeated measurements analysis of variance statistical designs to test the hypotheses; the attitude scale scores were used as the dependent variable, the three points in teacher development (prior to and following training and at the end of the first year of teaching) used as the first (column classification), independent variable and with the teachers' academic ability indices and personal attribute classifications used as the second (row classification) independent variables.

The specific row classifications used in the 2X3 and 3X3 ANOVA procedures for the academic ability and personal attribute classifications were: high and low halves of the ranked academic ability indices derived from the ACT, CTBS, grade point average, and the student teaching performance ratings measures; the dichotomous personal indices of gender, grade level of instruction (elementary and secondary), Myers-Briggs' personal preference types (extraversion-introversion, sensing-intuition, thinking-feeling, and judging-perceptive), and Rotter's internal-external locus of control; and the ratings of the



quality of their university training (evaluation grades of A, B, and C), and of when the teacher candidates first decided to become teachers (prior to, during, or following their high school years).

#### Findings

The one-factor repeated measures ANOVA of the attitude scores obtained just prior to the beginning of teacher training, following student teaching, and near the completion of the first year of full-time teaching indicated that the teachers' attitude toward teaching did not change markedly during this period of development. The overall attitude means for these three points in teacher development were 52.1, 52.3, and 50.6, respectively, with an F-ratio of 0.87 and  $p = .42$  as shown on Table 1.

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Insert Table 1 about here

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The two-factor ANOVA procedures (2X3 and 3X3) with repeated measurements in one factor revealed six significant ( $p < .05$ ) subject row classification main effect F-ratios as reported in Tables 2 and 3. A significant F-ratio was identified for just one of the four basic preference dichotomies from the Myers-Briggs Type Indicator, judging as opposed to perceptive preference types as reported on Table 2. The pattern of attitude score means for the perceptive individuals (a

preference for a flexible and spontaneous way of life) reveal a less positive attitude toward teaching as compared to the judging individuals (preference for a planned, decided, orderly way of life) at all measurement points but with a much less positive attitude reported after teaching as compared to attitude reported during training. The overall mean for the judging individuals was 52.3 and was 50.1 for those classified as perceptive ( $F = 3.47, p = .03$ ). This finding suggests that the perceptive teachers may have found that training as well as teaching itself required a planning and organization not in accord with their preferred way of approaching life; consequently, they expressed a less positive attitude about teaching during training as well as after their first year of teaching.

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Insert Table 2 about here

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In addition to the significant difference in the attitudes of the Myers-Briggs judging versus perceptive individuals, significant F-ratios indicating mean attitude differences were obtained for the following subject classifications: gender, instructional level, when the decision to teach was made, teachers' evaluation of their university training, and their locus of control orientation (see Table 3). The male candidates

reported a significantly less positive attitude toward teaching at all three measurement points (means of 50.4, 50.0, and 47.0) than did the female candidates (means of 52.4, 52.8, and 51.4). The overall mean was 49.13 for the males and 52.20 for the females resulting in  $F = 4.36$ ,  $p = .04$ . This gender difference was apparently largest at the end of the first year of teaching which might suggest that the male teachers may have been less satisfied with their first year of teaching than were the female teachers.

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Insert Table 3 about here

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Similar to the males, the secondary school individuals expressed a less positive attitude toward teaching as a career at all three measurement points (means of 52.0, 50.2, and 47.3) than did the elementary school teacher candidates (means of 52.5, 53.5, and 53.3) with  $F = 9.20$ ,  $p = .003$ , and the difference between the two groups of teachers was most evident at the end of the first year of teaching. The overall mean was 49.8 for the secondary and 53.1 for the elementary teachers. This similarity of the pattern of means for the gender and instructional level classifications may in part result from these two variables being confounded as nearly all the male teachers were also secondary majors.

Relatedly, the analyses revealed a significant interaction effect for the attitude scores between the three measurement points in teacher development and the instructional level classification ( $F = 3.96, p = .02$ ). The cell means related to this interaction (see Table 3) suggest that secondary teachers develop a less positive attitude toward teaching during training and the first year of teaching while elementary teachers seem to maintain a higher and more positive attitude toward teaching during training and their first year of teaching.

The analyses procedures also revealed an association between attitude toward teaching and the time of their decision to teach was made as shown in Table 3. The pattern of means for those candidates having decided to become teachers prior to high school, during high school, and after high school (overall means of 53.3, 51.6, and 50.5;  $F = 3.18, p = .04$ ) suggest that those prospective teachers who decided to teach prior to high school had the highest positive attitude about teaching and maintained that attitude during training and the first year of teaching while those who decided to teach after high school and that those who decided to teach during high school reported a less positive attitude.

A significant relationship was also identified between the teacher candidates' evaluation of their university training classification and their attitude toward teaching. Those

teachers who assigned a 'B' grade to the quality of their training reported a less positive attitude (overall mean of 50.2) toward teaching at all three measurement points than did those candidates assigning an 'A' (overall mean of 54.2) to the quality of their training ( $F = 6.43, p = .003$ ). The mean pattern for the classification as shown in Table 3 suggests that the attitude of those teachers assigning a 'B' to the quality of their university training was lower at all three measurement points than those assigning an 'A' and with a larger decrease reported after the first year of teaching.

The locus of control analyses revealed that individuals' classification was related to their attitudes toward teaching as shown in Table 3. The overall means were 53.3 for the internals and 50.2 for the externals ( $F = 5.81, p = .02$ ). Those teachers who perceive themselves as having more control over their environment (internal locus of control) had a more positive attitude toward teaching (means of 52.7, 54.6, and 52.5) than did the external locus of control candidates (means of 50.4, 52.05, and 47.8) and appeared to maintain this higher and more positive attitude through training and their first year of teaching.

As can be noted from observing patterns of the attitude means reported in both Tables 2 and 3, it appears that the first year of teaching led to a less positive attitude for many of the

neophyte teachers. However, it appears that most teachers maintained a high positive attitude about teaching throughout their teacher training and their first year of teaching and that the apparent decrease in positive attitude near the end of the first full year of teaching was minor from a practical point and was nonsignificant statistically.

#### Summary and Discussion

A longitudinal sample of 65 neophyte teachers completed a measure of attitude toward teaching as a career upon commencement of their teacher training, after their student teaching, and near the completion of their first year of full-time teaching. Contrary to the findings of several other research studies, the overall total sample of teachers did not develop a significantly less positive attitude toward teaching as they progressed through their teacher training and their first year of full-time teaching. This led to the acceptance (non-rejection) of the first of the three stated hypotheses.

The teachers' academic ability indice classifications (high and low student teaching performance ratings, high and low university grade point averages, high and low ACT scores, and high and low CTBS scores) did not reveal significant overall mean differences in attitude toward teaching. This led to the acceptance of the hypothesis that the academic ability indices

were not related to the teachers' attitude about teaching during teacher development.

Each of the teachers' personal attribute classifications (gender, grade level of instruction, earliness of their decision to teach, perception of quality of their university training, Myers-Briggs personality types, and locus of control) was found to be related to the teachers' attitude toward teaching scores. This finding resulted in the rejection of the third hypothesis.

In summation, the findings suggest that personal attributes but not the academic ability indices of teachers may influence their attitude toward teaching. The results of the present study indicate that when observed as a total group, the teachers maintained a highly positive attitude toward teaching during teacher training and through the first year of teaching; whereas some subgroups of the teachers developed a less positive attitude toward teaching during these teacher development years and particularly during the first year of teaching.

The findings from this study indicated that male secondary teachers, teachers who delayed their decision to teach (during or after their high school years), teachers who felt that they had less control over their environment (external locus of control), and those teachers who had a preference for a more flexible and spontaneous way of life (rather than planned, decided, and orderly) over the course of their training and

first year of teaching expressed a less positive attitude toward teaching than did their counterparts.

It is not known whether the second and subsequent years of teaching contribute even further toward the less positive attitude of these subgroups of teachers, or whether this increasingly less positive attitude toward teaching ultimately results in many of them leaving the profession. A related question is what can teacher trainers and those responsible for the induction of new teachers into the profession do to make the first year and perhaps the subsequent years of teaching more positive for these "at risk" neophyte teachers. It would seem feasible that a more supportive orientation and induction program might modify possible unrealistic expectations, might alleviate initial negative transitional experiences, and perhaps eventually reduce the loss of otherwise capable teachers from the profession.

Also of relevance to these findings is that considerable research evidence links teachers' locus of control (Lefcourt, 1982) and personality type (Myers & McCaulley, 1985) with both pupil and teacher classroom behavior. For example, Harpin (1980) and Harpin and Sandler (1979) reported a positive relationship between teachers' feelings of internal locus of control and teachers' effective classroom management, and DeNovellis and Laurence (1983) found a relationship between



teachers' personality type as measured by the Myers-Briggs Type Indicator (a judging in contrast to perceptive preference) and teachers' effective classroom management. Perhaps in addition to teacher induction programs, externally controlled and perceptive oriented teachers might be better assisted in adapting to classroom teaching through examining their own feelings of control and their preferences for life structure as they relate to the demands and bureaucracy of the typical school and classroom setting.

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Table 1

Attitude Means and F-Ratio\* for Three Points in Teacher  
Development

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|      | Before          | After                   | After First          |          |          |
|------|-----------------|-------------------------|----------------------|----------|----------|
|      | <u>Training</u> | <u>Student Teaching</u> | <u>Year Teaching</u> | <u>F</u> | <u>p</u> |
| Mean | 52.1            | 52.3                    | 50.6                 | .87      | .42      |
| N    | 65              | 65                      | 65                   |          |          |
| SD   | 5.9             | 6.2                     | 7.2                  |          |          |

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\*This F-ratio relates to a one-factor ANOVA with repeated measurements. It should be looked upon as the "Column F" when examining the findings in Tables 2 and 3. The F-ratios presented in Tables 2 and 3 should be looked upon as row F's in 2X3 or as the case may be, 3X3, two-factor ANOVAS with repeated measurements on the column or time factor.

Table 2

Attitude Means and F-Ratio\* for Three Points in Teacher Development for the Judging and Perceptive Myers-Briggs Classifications

| <u>Classification</u>    | <u>N</u> | <u>Before Training</u> | <u>After Training</u> | <u>After Teaching</u> | <u>Overall Mean</u> | <u>F</u> | <u>p</u> |
|--------------------------|----------|------------------------|-----------------------|-----------------------|---------------------|----------|----------|
| <b>Myers-Briggs Type</b> |          |                        |                       |                       |                     |          |          |
| Judging                  | 46       | 52.4                   | 53.0                  | 51.6                  | 52.3                | 3.47     | .03      |
| Perceptive               | 12       | 51.2                   | 52.0                  | 47.1                  | 50.1                |          |          |

\*Please see the note at the bottom on Table 1 which describes this F-ratio.

Table 3

Attitude Means and F-Ratios\*\* for Three Points in Teacher Development for Various Classifications of the Teachers

| <u>Classification</u> |             | <u>N*</u> | <u>Before</u><br><u>Training</u> | <u>After</u><br><u>Training</u> | <u>After</u><br><u>Teaching</u> | <u>Overall</u><br><u>Mean</u> | <u>F</u> | <u>p</u> |
|-----------------------|-------------|-----------|----------------------------------|---------------------------------|---------------------------------|-------------------------------|----------|----------|
| Gender:               | Male        | 11        | 50.4                             | 50.0                            | 47.0                            | 49.3                          | 4.36     | .04      |
|                       | Female      | 54        | 52.4                             | 52.8                            | 51.4                            | 52.2                          |          |          |
| Instructional Level:  | Elementary  | 38        | 52.5                             | 53.5                            | 53.3                            | 53.1                          | 9.20     | .003     |
|                       | Secondary   | 25        | 52.0                             | 50.2                            | 47.3                            | 49.8                          |          |          |
| Teach Decision:       | Prior H.S.  | 22        | 53.8                             | 52.6                            | 53.6                            | 53.3                          | 3.18     | .04      |
|                       | During H.S. | 29        | 52.7                             | 52.5                            | 49.5                            | 51.6                          |          |          |
|                       | After H.S.  | 11        | 49.8                             | 51.1                            | 50.6                            | 50.5                          |          |          |
| Training Evaluation:  | 'A' grade   | 22        | 53.8                             | 54.6                            | 54.1                            | 54.2                          | 6.43     | .003     |
|                       | 'B' grade   | 38        | 50.9                             | 51.0                            | 48.6                            | 50.2                          |          |          |
| Locus of Control:     | Internals   | 22        | 52.7                             | 54.6                            | 52.5                            | 53.3                          | 5.81     | .02      |
|                       | Externals   | 22        | 50.4                             | 52.5                            | 47.8                            | 50.2                          |          |          |

\*Sample sizes varied somewhat as not all information was available on all teacher candidates.

\*\*Please see the note at the bottom of Table 1 which describes these F-ratios.