

2000

## Development of Attitude Toward Teaching Career

Fred L. Pigge

*Bowling Green State University*

Ronald N. Marso

*Bowling Green State University*

Follow this and additional works at: <https://scholarworks.bgsu.edu/mwer>

**How does access to this work benefit you? Let us know!**

---

### Recommended Citation

Pigge, Fred L. and Marso, Ronald N. (2000) "Development of Attitude Toward Teaching Career," *Mid-Western Educational Researcher*. Vol. 13: Iss. 2, Article 2.

Available at: <https://scholarworks.bgsu.edu/mwer/vol13/iss2/2>

This Featured Article is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in Mid-Western Educational Researcher by an authorized editor of ScholarWorks@BGSU.

---

# *Development of Attitude Toward Teaching Career*

Fred L. Pigge and Ronald N. Marso  
Bowling Green State University

## *Abstract*

*The purpose of this longitudinal study was to investigate whether selected academic ability indices and personal characteristics of 117 teachers were associated with changes in their attitude toward teaching as a career measured upon the commencement of teacher preparation, the end of student teaching, and upon completion of their fifth year of teaching. Mixed model two-way ANOVA procedures revealed that the attitude toward teaching of the neophyte teachers remained stable and positive during teacher preparation but were less positive near the end of their fifth year of teaching; that ACT scores, Rotter's locus of control, Myers-Briggs Type Indicator preferences, gender, when the decision to teach was made, and the initial degree of assurance about becoming teachers were associated with attitude toward teaching as a career; and statistical interactions were identified, revealing contrasting changes in attitude development during teacher preparation for candidates with different personal characteristics.*

The continued emphasis upon accountability and pupil competence in public education increasingly raises concern about teacher quality and development. This concern has resulted in several recent efforts to consolidate and reassess existing theory and research on teacher development. For example, Firestone and Pennell (1993) reviewed approximately 30 studies investigating relationships between working conditions and the development of commitment to the teaching profession, Brookhart and Freeman (1992) analyzed more than 40 studies of the nature of entering teachers for common research themes and procedures, and Kagan (1992) examined approximately 50 studies of preservice and beginning teachers for relationships with various theoretical models of teacher development.

Among the common themes noted in the aforementioned integrative interpretations of the existing teacher development research literature were an increasing number of studies evolving from theoretical models of teacher development, such as Fuller's (Fuller and Bown, 1975) model of the development of teaching concerns and Berliner's (1988) model of teacher cognitive development; a recognized need for, but relative absence of, longitudinal studies of teacher development; and the growing acceptance of the presence and understanding of stages in teacher career development. Within these studies, teacher career development was viewed as changes in teachers' job skills, knowledge, and behaviors; changes in attitude and outlooks; and changes in job events (Burden, 1982). Evidence from these studies indicated that these changes follow a developmental pattern and interact with teachers' beliefs, prior experiences, and personality (Bendixen-Noe and Redick, 1995; Kagan, 1992).

In the present study, attitude toward teaching as a career was investigated using a sample of teacher candidates as they progressed through teacher preparation and the early years of their classroom teaching. Research on attitude development in teacher candidates suggests a pattern of change from early formalized and rigid attitudes toward teaching to a more liberal, democratic, and humanistic attitude about

teaching in mid teacher preparation and returning to the former rigid control of pupils orientation following student teaching and early teaching responsibilities (Callahan, 1980; Hogben and Lawson, 1984; Hoy and Woolfolk, 1990; Lipka and Garlet, 1981). Hoy and Rees (1977) suggest that this regression to an earlier attitudinal position following early teaching experiences may simply result from the teacher candidates' return to the conformity of the conservative, bureaucratic behavior norms of the public schools. In contrast to these research findings, some cross-sectional studies of preservice and inservice teachers have revealed stable attitudes, or even positive changes, rather than negative changes in attitude toward teaching during the transition from students to teachers (Marso and Pigge, 1989; Paschal and Treloar, 1979; Sandgren and Schmidt, 1956). The danger inherent in these studies is that many teacher candidates who had experienced an abrupt decline in attitude toward teaching may have already left the profession before the measurement points and, therefore, do not appear in the later inservice samples of teachers.

The aforementioned discrepancies in research findings may be explained by suggestions that attitude development, like more general teacher development, is influenced by prior personal experiences and individual characteristics of the prospective teachers and by characteristics of the employing school (Tabachnick and Zeichner, 1984; Zeichner, 1980). Some empirical evidence exists which supports this explanation. For example, Villeme and Hall (1980) and Pigge and Marso (1987) reported that teacher candidate gender and grade level of instruction are related to their attitude toward teaching. Also, Byler and Byler (1984) revealed relationships between extent of student teachers' prior field experience, student teachers' own expectations of their experience, and characteristics of cooperating teachers and the attitudes and morale of student teachers. Regarding the extent of field experience factor and its possible impact upon teacher candidate attitudes, Gibson and Coleman (1997) reported that most schools of education have increased field requirements

---

for teacher candidates. This change in itself may account for some of the differences in the results of the studies conducted at different times.

Relative to the broader question about the importance of teacher attitudes, relationships have been found between teacher attitudes and success in the transition from students to teachers as well as between attitudes and classroom teaching behaviors. Villeme and Hall (1980) reported that candidates with more positive attitudes toward teaching and with higher grade point averages were more likely to actually enter the teaching field; Ramsay and Rensley (1986) found that teacher attitudes influenced the achievement of their pupils; Sorenson, Schaefer, and Nyman (1966) reported that teacher attitude was related to teacher persistence in the profession; Bunting (1988) noted a relationship between teacher attitudes and choice of instructional procedures; Friesen, Prokop, and Sarros (1988) reported a relationship between negative attitudes (e.g., depersonalization) and teacher burn-out; and Noad (1979) identified a relationship between teacher attitudes and their pupils' ratings of their teaching performance. Additionally, Wilkinson (1994) states that newly qualified teachers have an "alarmingly high" attrition rate; Valli (1992) indicated that beginning teachers experience more classroom problems and experience them more profoundly than do experienced teachers; and Chester and Beaudin (1996) state that it is "well documented" that teachers' self-efficacy beliefs and attitudes toward teaching change during their first year of teaching.

In summation, the developmental perspective of teacher evolution suggests that attitude toward teaching will change during teacher preparation and the initial years of teaching, and research findings derived from cross-sectional samples indicate that teacher attitudes may be related to both teacher attrition and the performance of their pupils. The research literature also suggests that various academic and personal attributes of teacher candidates, as well as the nature of the teaching setting itself, may interact with the development of teacher attitudes. The purpose of the present study was to further investigate selected academic ability and personal characteristics of teachers that may be associated with changes in attitude toward teaching for a longitudinal sample of teacher candidates as they progressed through preparation and the initial years of teaching.

### Method

The sample for this study was comprised of 117 neophyte teachers who completed the Attitude Toward Teaching as a Career measure at the commencement of teacher preparation, near the end of their student teaching practicum, and again near the end of their fifth year of teaching. This 11-item attitude scale provides a single score responded to on a continuum from strongly disagree '1' to strongly agree '6'; thus, a score of 66 represents the maximum positive attitude score from this instrument. This instrument is unique in the measurement field in that it provides discriminant

validity related to career choice, and more recent research (Pigge and Marso, 1992) has indicated that the scale differentiates between teacher candidates persisting or not persisting through teacher preparation. It is a situation specific scale based upon need theory and the attitude-concept view of attitude structure. Scores from the scale are conceptualized as a function of the individual-belief value matrix wherein attitudes evolve from perceptions that the attitude objects block (negative) or facilitate (positive) need satisfaction. From a teacher development perspective, one could hypothesize that teacher candidates should show an increasingly positive attitude toward teaching as a career as their knowledge and skills develop during teacher preparation and that this positive attitude should remain stable during the initial years of teaching.

The following data also were gathered from the subjects during teacher preparation: American College Test (ACT) and Comprehensive Test of Basic Skills (CTBS) composite scores, university and education grade point averages, Rotter's (1966) externality locus of control scores, university supervisors' ratings of their student teaching performance, and Myers-Briggs Type Indicator personal preference classifications (Myers and McCaulley, 1985). The CTBS is one of the most frequently used K-14 grades standardized achievement batteries with a focus upon assessment of reading skills, language acquisition, and mathematical computations and concepts. The ACT was developed by the American College Testing Program, and it has been one of the two major undergraduate college admissions tests used in the country over the past three decades. The Rotter and Myers-Briggs instruments have been heavily used for various research purposes over a period of many years, and both have been found to be related to various teacher characteristics. Similarly, the gender, grade level of instruction, and time when the decision to teach was made classifications have been found to be related to teacher persistence (Marso and Pigge, 1997) and have been suggested as factors to be considered in recruiting teacher candidates (Hutchinson and Johnson, 1993-94).

The researcher developed university supervisors' scale for rating student teachers' performance encompasses assessments in six performance categories: presents content effectively; effectively plans, prepares, and organizes instructional activities; maintains a positive learning climate; maintains appropriate student behavior; displays professional knowledge and behavior; and shows fairness, tact, compassion, and good judgment. Each of these performance categories is accompanied by behavior descriptions of the types of student teachers' performance to be assessed. The six items are responded to on an eight-point scale from the worst '0' to truly exceptional 7, yielding a total score from zero to 42. The scale directs the university supervisor to rate the current student teacher relative to the typical performance of all student teachers supervised over the prior five years.

This sample of teacher candidates was beginning its teacher preparation at a large Midwestern teacher prepara-

tion institution. The candidates were predominately white (98%), female (81%), elementary (57%) and secondary (43%) majors, very certain or almost certain about teaching (88%), and from rural (33%) or suburban (54%) high schools of moderate to small size (61% with high school graduating classes of 300 or less). Most of the candidates were employed in schools similar to those from which they had graduated.

Mixed-model two-factor ANOVA procedures with one repeated measures factor were used to analyze the data. The three points of time in teacher development, prior to and following teacher preparation and at the end of the fifth year of teaching, comprised the repeated measures factor independent variable. The various academic ability indices and personal attribute classifications of the teachers were used as the second independent variable. In all analyses, the attitude scores were used as the dependent variable.

The specific row classifications used in the 3x2 and 3x3 ANOVA procedures for the academic ability and personal attribute classifications were approximate high and low halves of the academic ability indices derived from the ACT and CTBS composite scores, the university and education grade point averages, and the student teaching performance ratings; the dichotomous personal classifications of gender, grade level of instruction (elementary and secondary), Myers-Briggs' personal preference types (extraversion-introversion, sensing-intuition, thinking-feeling, and judging-perceptive); and three level classifications from Rotter's locus of control (approximate top, mid, and low one-thirds of the externality scores) and from when the teacher candidates first decided to become teachers (prior to, during, or following the high school years).

## Results

The results of the ANOVA procedures indicated that the teachers' attitude toward teaching as a career changed during this period of teacher development. As shown in Table 1, the overall attitude means for these three points in career development were almost identical from pre- to post-teacher preparation, but by the fifth year after graduation the teachers' attitude toward teaching as a career had become less positive ( $F = 5.06, p = .0071$ ). The series of ANOVAs also revealed significant row main effect or interaction F ratios for 6 of the 15 subject academic and personal classifications. It can also be observed in Table 1 that the time variable was significant each of the six comparisons presented ( $p$ 's from .0004 to .0122). Post-hoc pair-wise mean comparisons via a Scheffe test ( $\alpha .10$ ) revealed no significant differences between the sophomore and senior means, but both of these sets of means were higher than the means after the fifth year of teaching.

### *Assurance About Teaching Classification*

The assurance classification revealed an overall attitude mean difference among the very certain, certain, and uncertain about teaching candidates,  $F = 5.82, p = .0039$  but re-

vealed a nonsignificant assurance  $\chi$  time interaction as shown in Table 1. The post-hoc pair-wise mean comparisons indicated no difference between the certain and the other two groups of candidates, but the uncertain candidates differed from the very certain candidates. Those teachers who were more assured of their decision to become teachers upon commencement of preparation reported more positive attitudes toward teaching at all three measurement points as can be seen in Table 2. It can also be seen in Table 2 that the standard deviations for the attitude scores for the assurance, and all other significant classifications, were most diverse at the end of the fifth year of teaching. This increased diversity in attitude toward teaching suggests that the classroom teaching experience may have been satisfying the needs of some candidates but likely not for other candidates. It also can be noted that attitude diversity was greater within the groups of teachers who had reported being uncertain ( $SD = 10.47$ ) and certain about teaching ( $SD = 9.03$ ) as compared to those who had reported being very certain ( $SD = 7.94$ ) about teaching upon commencement of teacher preparation.

### *Locus of Control Classification*

The locus of control main effect did not reach statistical significance ( $F = 2.05, p = .1364$ )<sup>11</sup> however, the locus of control  $\chi$  time in career interaction effect was significant ( $F = 2.64, p = .0359$ ) as reported in Table 1. The pattern of these means and accompanying effect sizes as shown in Table 2 and Figure 1 indicates that the high externality teachers, those teachers feeling they had little control over their environment, reported less positive pre- and post-preparation attitudes but somewhat more positive attitudes after teaching as compared to the low and mid externality teachers. The low and mid externality candidates reported higher attitudes during teacher preparation followed by declines in positive attitude from end of preparation to the fifth year of teaching ( $ESs = 1.10$  and  $.49$ , respectively, see Figure 1) while just the opposite occurred for the high externality group ( $ESs = .27$ ). Typically, effect sizes ( $ES$ ) of  $.20$  to  $.50$ ,  $.50$  to  $.80$ , and  $.80$  plus are considered small, medium, and large.

As can be seen in Figure 1, the decline in attitude toward teaching was particularly sharp for the low externality ( $ESs = 1.10$ ), those internally oriented teachers who felt they had considerable control over their environment, candidates. This interaction suggests that the high externals found' classroom teaching to be a more need satisfying experience than what was expected; whereas the low externality candidates in particular found their early teaching experiences to be much less satisfying than anticipated. Perhaps these internally controlled teachers found that they, themselves, could not control the teaching setting as much as they had anticipated. This finding may be particularly significant as other researchers have reported that internally controlled teachers, as might be expected by definition of the internal orientation, feel more responsible for the progress of the pupils (Ashton, Webb, and Doda, 1983) and have pupils who achieve higher than pupils of external teachers (Murray and

Table 1  
 2x3 and 3x3 ANOVA F Values for the Attitude Toward Teaching as a Career Means at Three Times in Teacher Development and for Seven Classifications of Teachers

<u>Time in Teacher Development</u>			<u>Subject Classifications</u>				<u>Interaction</u>							
<u>Soph.</u>	<u>Senior</u>	<u>5th year</u>	<u>df</u>	<u>F</u>	<u>p</u>	<u>Assurance Teach</u>			<u>Time x Assurance</u>					
52.24	52.26 *	49.79	2,228	5.06	.0071	<u>Very Certain</u>	<u>Certain</u>	<u>Uncertain</u>	<u>df</u>	<u>F</u>	<u>p</u>	<u>df</u>	<u>F</u>	<u>p</u>
						52.67	50.84	48.07	2,114	5.82	.0039	4,228	2.17	.0737
52.47	52.55	49.71	2,148	4.74	.0102	<u>External Locus of Control</u>			<u>Time x Locus</u>					
						<u>Low</u>	<u>Mid</u>	<u>High</u>	2,74	2.05	.1364	4,148	2.64	.0359
						53.28	51.22	50.22						
52.73	52.73	49.79	2,156	7.35	.0009	<u>ACT</u>			<u>Time x ACT</u>					
						<u>High</u>		<u>Low</u>	1,78	4.36	.0401	2,156	1.54	.2177
						52.99		50.69						
52.51	52.55	49.82	2,200	4.51	.0122	<u>Myers-Briggs Preferences</u>			<u>Time x J-P</u>					
						<u>Judging</u>		<u>Perceptive</u>	1,100	7.86	.0061	2,200	0.28	.7534
						52.27		49.13						
52.51	52.55	49.82	2,200	8.22	.0004	<u>Myers-Briggs Preferences</u>			<u>Time x E-I</u>					
						<u>Extrovert</u>		<u>Introvert</u>	1,100	6.22	.0142	2,200	1.32	.2698
						52.41		49.98						
52.33	52.56	50.86	2,200	7.51	.0007	<u>Myers-Briggs Preferences</u>			<u>Time x S-I</u>					
						<u>Sensing</u>		<u>Intuitive</u>	1,100	4.93	.0287	2,200	2.12	.1221
						52.67		51.29						

\* Means above the same line do not differ significantly, Scheffé post-hoc tests,  $\alpha$  .10.

Table 2

*Means, Standard Deviations, and Ns for Classifications of the Teachers Revealing Differences in Attitude Toward Teaching as a Career at the Three Times in Development*

Subject Classifications		N's	Time in Teacher Development					
			Sophomores		Seniors		5th Yr. Teaching	
			M	SD	M	SD	M	SD
Assurance:	Very Certain	59	54.00	5.04	52.76	6.12	51.24	7.94
	Certain	44	51.93	4.30	51.98	4.83	48.62	9.03
	Uncertain	14	45.79	6.46	51.07	3.99	47.35	10.47
Locus of Control:	Low	22	54.95	5.00	55.55	4.58	49.33	10.51
	Mid	37	52.27	6.14	52.08	4.80	49.31	8.68
	High	18	49.83	5.54	49.83	5.82	51.01	7.35
ACT:	High	37	53.03	5.60	54.41	5.07	51.53	7.16
	Low	43	52.49	6.06	51.28	5.75	48.29	9.16
Myers-Briggs:	Judging	81	53.33	5.63	53.09	5.50	50.40	8.52
	Perceptive	21	49.33	4.78	50.48	4.59	47.59	7.99
	Extrovert	69	53.46	5.13	52.83	5.60	50.95	7.24
	Introvert	33	50.51	6.32	51.97	5.01	47.47	10.27
	Sensing	50	53.42	5.35	52.82	5.84	51.76	7.51
	Intuitive	52	51.63	5.90	52.29	5.00	49.96	8.95

Staebler, 1974). Consequently, this interaction may suggest that the transition from students to teachers may be most difficult attitudinally for those teachers initially most positive about becoming teachers and who become most concerned about the progress of their pupils.

#### *Academic Ability Classifications*

The CTBS, university and education grade point averages, and the student teaching performance row classifications of the teacher candidates did not result in statistically significant main or interaction effects. The ACT classification, however, revealed a significant main effect mean difference but a nonsignificant interaction effect. The high ACT

candidates reported a more positive attitude toward teaching than did the low ACT candidates,  $F = 4.36, p = .0401$  as shown in Table 1. The attitude means at the three career points, as reported in Table 2, indicate that the difference in attitude between the high and low ACT groups was barely evident at the commencement of preparation but was more evident both at the end of teacher preparation and the fifth year of teaching. Both the high and low ACT candidates reported their least positive attitudes at the end of the fifth year of teaching. The low ACT candidates, however, reported somewhat less positive attitudes at all three career points and reported the larger decline in attitude over the seven-year period.

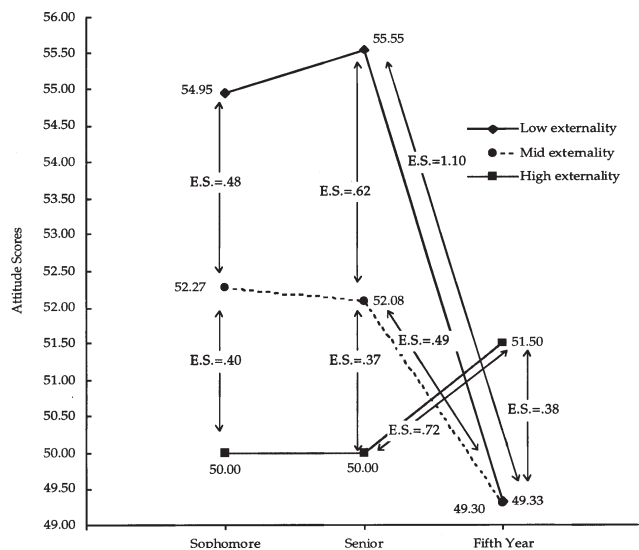


Figure 1. Time in Teacher Development x Locus of Control Orientation

### Myers-Briggs Preference Classifications

Three of the four Myers-Briggs classifications resulted in significant main, effect attitude mean differences, but none of the time in career  $\chi$  Myers-Briggs classification interactions were significant (see Table 1). The perceptive candidates, those preferring a flexible and spontaneous way of life, reported a less positive attitude than the judging candidates who prefer a more planned and orderly way of life,  $F = 7.86$ ,  $p = .0061$ . The extroverted candidates, those preferring the outer world of people and things, reported a more positive attitude toward teaching than the introverted candidates, those preferring the inner world of ideas,  $F = 6.22$ ,  $p = .0142$ . And the sensing candidates, those preferring to work with known facts, reported a more positive attitude about teaching than the intuitive candidates who prefer to work with possibilities and relationships,  $F = 4.93$ ,  $p = .0287$  as shown in Table 1. As noted earlier, the standard deviations for the attitude scores after the fifth year of teaching were larger than at the two earlier career points.

It can be noted from Table 2 that the majority of these candidates were classified as judging and extroverted rather than perceptive and introverted, but the candidates were rather evenly divided within the sensing-intuitive classification. The nonsignificant interaction effects identified in Table 1 suggest that none of these preference classifications of the teachers revealed variations in attitude other than the previously reported small general decline from the end of preparation to the end of the fifth year and even though greater diversity of attitudes was reported after teaching as compared to the two preservice measurement points.

### Summary and Discussion

Differences in attitude toward teaching as a career were identified across the three career development points in this

longitudinal study of 117 teacher candidates. Attitudes toward teaching remained stable and positive between the commencement of teacher preparation and the end of the student teaching practicum, but attitudes toward teaching became less positive between the completion of the student teaching practicum and the fifth year of teaching. Also considerably more diversity in attitude was noted at the fifth year of teaching than at the two earlier career points. The finding of no gain in positiveness of attitude during teacher preparation and the decline in positiveness of attitude from the end of teacher preparation to the fifth year of teaching is contrary to the presumptions underlying the attitude measure and related developmental theory. Attitudinal theory models suggest that attitudes toward teaching should become more positive as novice teachers develop their professional knowledge and teaching skills and as they find that teaching satisfies their needs.

Just the ACT classification among the selected academic ability indices was found to be related to the teacher candidates' attitude toward teaching. The teacher candidates with higher ACT scores reported higher levels of attitude toward teaching than did their cohorts with lower ACT scores. The CTBS scores, university and education grade point averages, and student teaching performance ratings classifications were not found to be related to the candidates' attitude toward teaching. This lent scant support for the question of a relationship between attitude development and academic performance indices of teacher candidates.

Among the personal classifications of the teacher candidates, the assurance about teaching, locus of control orientation, and the Myers-Briggs preference classifications were found to be related to the novice teachers' attitude toward teaching as a career providing somewhat more support for the question of a relationship between attitude development and candidate personal traits. The gender, secondary or elementary school major, time of decision to teach, and presence or absence of teachers in the family classifications were not found to be related to the teaching candidates' attitude toward teaching. Generally, these findings related to candidate characteristics indicated that those more confident about the decision to teach, those feeling they can influence their world (an internally rather than an externally controlled orientation), those extroverted rather than introverted, those sensing rather than intuitive (preference for known facts versus possibilities), and those judging rather than perceiving (preference for flexible versus planned way of life) reported more positive attitudes toward teaching.

The single significant interaction identified in the ANOVA procedures suggested that the main effect of attitude development over the three points in career development cannot be interpreted accurately without considering the candidates' locus of control orientation. The presence of the locus of control  $\chi$  time in development interactions might in part explain some of the inconsistencies of findings in previous research. For example, in this study the low externality (internally controlled) candidates' reported

the most positive attitudes during preparation but the greatest reduction in positiveness of attitude between the end of teacher preparation and the end of the fifth year of teaching as compared to their mid or high externality cohorts. Consequently, it might be that some but not all teachers follow the developmental conception of teacher attitude. In other words, some teachers may report a more positive attitude toward teaching during their developmental years; whereas others report a less positive attitude during these years.

Greater diversity in attitude toward teaching was found at the end of the fifth year of teaching compared to the pre- and post-teacher preparation points in career development. For all classifications of the neophyte teachers, the standard deviations were greater for the fifth year of teaching attitude scores than for the attitude scores obtained prior to or following teacher preparation. The standard deviations for the attitude scores at the fifth year of teaching were approximately twice the magnitude of the standard deviations for attitude scores obtained prior to or at the end of teacher preparation within the various academic or personal classifications of the teachers. This would appear to further support the suggestion that some teachers report more positive and some less positive attitudes toward teaching during their developmental years.

In summation, attitude toward teaching as a career remained constant during teacher preparation but became less positive between the end of teacher preparation and near the end of the fifth year of classroom teaching for this sample of teachers. Perhaps this general decrease in positive attitude as well as the increased diversity of attitude scores noted at the fifth year of teaching reflects the challenge and demands of a profession characterized by stress, burnout, and high attrition rates as well as personal attributes including locus of control orientation. The attitudes of these candidates were found to be related to 6 of the 15 academic and personal characteristics selected for study. These findings support the findings of Tabachnick and Zeichner (Tabachnick and Zeichner, 1984; Zeichner, 1980) and further emphasize the role of personal traits in teacher development. Relatedly, and perhaps of particular concern, was the finding in the present study that the internally controlled candidates, noted in previous research as feeling more responsible for pupils (Ashton, Webb, and Doda, 1983) and having higher achieving pupils (Murray and Staebler, 1974), reported relatively more abrupt declines in the positiveness of attitude toward teaching from the end of teacher preparation to the end of the fifth year of teaching than did their cohorts. This suggests that our more desirable teachers might most suffer in the transition from students to teachers and, as a consequence, may be most prone to leave the profession.

#### References

Ashton, P. T., Webb, R. B., and Doda, N. (1983). A study of teachers' sense of efficacy. Final Report, Gainesville: University of Florida, Contract No. 400-79-0025. National Institute of Education.

- Bendixen-Noe, M. K. and Redick, S. S. (1995). Teacher development theory: A comparison between traditional-aged and nontraditional-aged beginning secondary teachers. *Action in Teacher Education*, 17(1), 52-59.
- Berliner, D. C. (1988). Implications of studies of expertise in pedagogy for teacher education and evaluation. In *New Directions for Teacher Assessment* (Proceedings of the 1988 ETS Invitational Conference, pp. 39-68). Princeton, NJ: Educational Testing Service
- Brookhart, S. M. and Freeman, D. J. (1992). Characteristics of entering teacher candidates. *Review of Educational Research*, 62(1), 37-60.
- Bunting, C. (1988). Cooperating teachers and the changing views of teacher candidates. *Journal of Teacher Education*, March-April, 42-46.
- Burden, R. R. (1982). Implications of teacher career development: New roles for teachers, administrators and professors. *Action in Teacher Education*, 4(3), 21-25
- Byler, B. L. and Byler, L. F. (1984). Analysis of student teacher morale before and after student teaching. *Journal of the American Association of Teacher Education in Agriculture*. 25, 22-28.
- Callahan, R. (1980). A study of teacher candidates' attitudes. *College Student Journal*, 14, 167-175
- Chester, M. D. and Beaudin, B. G. (1996). Efficacy beliefs of newly hired teachers in urban schools. *American Educational Research Journal*, 33, 233-257.
- Firestone, W. A. and Pennell, J. R. (1993). Teacher commitment, working conditions, and differential incentive policies. *Review of Educational Research*, 63(4), 489-525.
- Fuller, F. and Bown, O. H. (1975). *Becoming a teacher*. In K. Ryan (ed.), *Teacher Education* (Seventy-fourth Yearbook of the National Society for the Study of Education, pp. 25-52). Chicago: University of Chicago Press.
- Friesen, D., Prokop, C. M., and Sarros, J. C. (1988). Why teachers burn out. *Educational Research Quarterly*, 12(3), 10-19.
- Gibson, R. L. and Coleman, D. R. (1997). Reviewing educational reform and teacher education. *Action in Teacher Education*, 19, 84-87.
- Hogben, D. and Lawson, M. J. (1984). Trainee and beginning teacher attitude stability and change: Four case studies. *Journal of Education for Teaching*. 10(2), 135-153.
- Hoy, W. K., and Rees, R. (1977). The bureaucratic socialization of student teachers. *Journal of Teacher Education*, 28, 23-25.
- Hoy, W. K. and Woolfolk, A. E. (1990). Socialization of student teachers. *American Educational Research Journal*, 37, 99-118.
- Hutchinson, G. E. and Johnson, B. (1993-94). Teaching as a career: Examining high school students' perspectives. *Action in Teacher Education*, 15, 61-67.



- 
- Kagan, D. M. (1992). Professional growth among preservice and beginning teachers. *Review of Educational Research*, 62(2), 129-169.
- Lipka, R. P. and Garlet, L. R. (1981). Age and intergroup differences in attitude toward the teaching profession: How do teachers and students view themselves and each other? *Contemporary Educational Psychology*, 6, 12-21.
- Marso, R. N. and Pigge, F. L. (1997). A longitudinal study of persisting and nonpersisting teachers' academic and personal characteristics. *The Journal of Experimental Education*, 65, 243-254.1
- Marso, R. N. and Pigge, F. L. (1989). The influence of preservice training and teaching, experience upon attitude and concerns about teaching. *Teaching and Teacher Education*, 5, 33-41.
- Murray, H. and Staebler, B. K. (1974). Teachers' locus of control and student gains. *Journal of School Psychology*, 12, 298-310.
- Myers, I. B. and McCaulley, M. H. (1985). *Manual: A guide to the development and use of the Meyers-Briggs 1 Year Indicator*. Consulting Psychologists Press, Palo Alto.
- Noad, B. M. (1979). Influence of self-concept and educational attitudes on elementary student teacher performance. *Educational Research Quarterly*, 4(1), 68-75.
- Paschal, B. J. and Treloar, J. H. (1979). A longitudinal study of attitude change in prospective and beginning elementary school teachers. *Teacher Educator*, 15(1), 2-9.
- Pigge, F. L. and Marso, R. N. (1992). A longitudinal comparison of the academic, affective, and personal characteristics of persisters and nonpersisters in teacher preparation. *The Journal of Experimental Education*, 61, 19-26.
- Pigge, F. L. and Marso, R. N. (1987). Relationships between student characteristics and changes in attitudes, concerns, anxieties, and confidence about teaching during teacher preparation. *Journal of Educational Research*, 81(2), 109-115.
- Ramsay, W. and Ransley, W. (1986). A method of analysis for determining dimensions of teaching style. *Teaching and Teacher Education*, 2, 69-79.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80, (Whole No. 609).
- Sandgren, D. L. and Schmidt, L. G. (1956). Does practice teaching change attitudes toward teaching? *Journal of Educational Research*, 49, 673-680.
- Sorenson, G., Schaefer, S., and Nyman, E. L. (1966). A teacher dropout for the MTAL *California Journal of Educational Research*, 17, 91-95.
- Tabachnick, R. and Zeichner, K. (1984). The impact of the student teaching experience on the development of teacher perspectives. *Journal of Teacher Education*, 35(6), 28-36.
- Wilkinson, G. A. (1994). Support for teacher induction. *Action in Teacher Education*, 16, 52-61.
- Valli, L. (1992). Beginning teacher problems: Areas of teacher education improvement. *Action in Teacher Education*, 14, 18-25.
- Villeme, M. G. and Hall, B. (1980). The relation of teacher attitude to major, employment status, teaching level, and satisfaction with teaching for first-year teachers. *Humanistic Education*, 19, 85-90.
- Zeichner, K. M. (1980). Myths and realities: Field-based experiences in preservice teacher education. *Journal of Teacher Education*, 31, 45-55.