AN ASSESSMENT OF TEACHING INTERNS' LEVEL OF PROFICIENCY ON STATE STANDARDSPRIOR TO AND AT THE COMPLETION OF THE TEACHING INTERNSHIP

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Abstract

The growth and development of teaching interns with regard to the Standards for Teacher Education Programs (MoSTEP) quality indicators during the student teaching internship has not been investigated. In addition, the use of teacher certification measures as predictors of performance related to the MoSTEP quality indicators has not been adequately investigated. Therefore, the purpose of this descriptive correlational study was to assess student teaching interns' level of proficiency of the MoSTEP quality indicators prior to and at the completion of the student teaching internship. The study further sought to compare the self-perceived proficiency levels of the teaching interns to their cooperating teachers' evaluations of the interns' level of proficiency on the MoSTEP quality indicators. The purposeful sample (n = 16) consisted of agriculture student teaching interns, and their respective cooperating teachers, who were certifying to teach through the University of Missouri during the 2005 winter semester. Findings suggest the student teaching internship strengthens teaching interns' level of proficiency on all 11 MoSTEP quality indicators, as self-perceived by the teaching interns and their respective cooperating teachers. In addition, no single teacher certification measure, or combination of measures, was predictive of the teaching interns' performance of the MoSTEP quality indicators.

Introduction and Theoretical Framework

The student teaching internship is one of the most critical components of a teacher preparation program (Byler & Byler, 1984). The quality of the student teaching internship, coupled with preparation and practice, affects teaching interns in regard to their perceptions of being a secondary agriculture teacher (Deeds, Flowers, & Arrington, 1991). Teaching interns must be prepared to handle responsibilities similar to those of their cooperating teachers and feel competent for their intended profession, as this preparation adds to the professionalism and motivation exhibited by the teaching intern.

The experiences of teaching interns during the student teaching internship are imperative in gaining insight into the roles and responsibilities of a secondary agriculture teacher (Harlin, Edwards, & Briers, 2002). Based upon established standards, teacher preparation programs are responsible for preparing teaching interns for the roles and responsibilities of a secondary agriculture teacher. Wise and Leibbrand (2001) stated that the role of teaching interns and their respective cooperating teachers should be the main focus of the student teaching internship.

Teacher preparation programs are designed and based on established standards. In focusing on standards for teacher preparation and certification, teacher preparation programs strive toward

their ultimate goal of producing quality teachers (Graham & Garton, 2003). Due to the added emphasis on preparing qualified teachers, teacher certification measures have been established to serve as documentation of the teaching interns' level of proficiency in relation to specific certification areas. In the state of Missouri, teacher certification measures include American College Testing Examination (ACT), College Basic Academic Skills Examination (C-BASE), grade point average, and the National Teachers Examination (NTE) PRAXIS specialty area test. Factors, such as grade point average, may be further examined in specific areas of teacher preparation to evaluate the level of proficiency of the prospective teacher.

During the student teaching internship, teaching interns are evaluated by their respective cooperating teachers based upon established criteria and standards (Dormody & Torres, 2002). Standards may be based upon *A Nation at Risk* (National Commission on Excellence in Education, 1983, as stated in Wise & Leibbrand, 2001) and the *No Child Left Behind Act* (United States Department of Education, 2003).

In *A Nation at Risk* (National Commission on Excellence in Education, 1983, as stated in Wise & Leibbrand, 2001), standards were written for teacher education programs to follow in an effort to produce highly qualified teachers. The lack of preparation, and evidence of preparation, that candidates for teacher certification were receiving was exposed (Graham, 2000). In *A Nation Still at Risk* (1999), some schools still had difficulty in finding highly qualified teachers for positions. Since *A Nation at Risk* and *A Nation Still at Risk* were published, measures have been taken to help ensure the certification of highly qualified teachers (Wise & Leibbrand, 2001). In 2001, President Bush pushed for education reform with the *No Child Left Behind Act* (United States Department of Education, 2003). Under the *No Child Left Behind Act*, highly qualified teachers are defined and accountability of teacher quality is addressed. *No Child Left Behind* defines a highly qualified teacher as "…one with full certification, a bachelor's degree and demonstrated competence in subject knowledge and teaching" (United States Department of Education, 2003, p. 20). Further, school districts must maintain highly qualified teachers by meeting objectives set forth by the school district and state board of education (United States Department of Education, 2003).

The American Association for Agricultural Education (AAAE) has developed a conceptual framework of standards for agriculture teacher preparation programs, titled "National Standards for Teacher Education in Agriculture" (2001). While these are standards for teacher preparation programs to implement in developing quality agriculture teachers, there are more specific standards that teaching interns must complete to meet certification criteria. In the state of Missouri, teacher certification standards are known as the Missouri Standards for Teacher Education Programs (MoSTEP). The MoSTEP quality indicators are divided into and referred to as 11 quality indicators in which teaching interns must demonstrate and document competence prior to being recommended for teacher certification to the Department of Elementary and Secondary Education (Table 1). Each of the 11 quality indicators have specific criteria that must be achieved for the quality indicator to be met. The MoSTEP quality indicators are addressed in a variety of courses in the teacher preparation program. All 11 standards are met, or should be met, and strengthened upon completion of the internship.

Table 1

MoSTEP Quality Indicators

1. Content Knowledge
2. Learners and Learning
3. Diversity
4. Curriculum
5. Instruction
6. Classroom Management
7. Communication
8. Assessment
9. Reflection and Professional Growth
10. Professional Responsibility
11. Technology in Teaching and Learning

Note. From "Missouri Standards for Teacher Education Programs," 2003, *Department of Elementary and Secondary Education, Division of Teacher Quality and Urban Education*.

Findlay and Drake (1989) stated that information gained from the assessments of the cooperating teachers and self-assessments of their respective teaching interns should be used by teacher education programs to evaluate the effectiveness of the teacher education program and the student teaching internship. In addition, student licensure tests can be used to determine the effectiveness and quality of the student teaching experience. States, however, are at their own discretion as to whether or not to use licensure tests in providing evidence that candidates meet the standards of being qualified (Berliner, 2005). Standardized test scores and grade point averages are hard numbers that can be used as evidence for teacher education programs in preparing quality teachers (Cochran-Smith, 2003). However, the use of standardized test scores does not necessarily reflect the actual teaching performance of the teaching intern (Berliner, 2005). Standardized test scores and grade point averages may also be used as evidence for schools in hiring teachers to meet the *No Child Left Behind Act* (United States Department of Education, 2003).

A theoretical model can be used to assist teacher preparation programs in evaluating candidates for certification. Figure 1 exhibits the hypothesized relationships between selected teacher certification measures and assessment of the MoSTEP quality indicators based upon existing work by McDonald and Elias (1976). The teacher certification measure of knowledge, as measured by cumulative grade point average can be further divided into three areas: education coursework GPA, agricultural education coursework GPA, and content area (agriculture) GPA. Content area (agriculture) GPA may be correlated with the NTE PRAXIS in agriculture score, which are both teacher certification measures, as well as the evaluation of MoSTEP quality indicator 1, content knowledge.

Teaching interns often perceive themselves not being as prepared for the profession as they believe they should. Since the main goal of teacher education programs is to produce proficient teachers, teaching interns' level of proficiency must be identified. This leads to two potential

issues that must be addressed by teacher education programs. How much growth and development, related to the MoSTEP quality indicators, do teaching interns experience as a result of the student teaching internship? Are teacher certification measures, such as grade point averages and certification exam scores, reflective of the teaching interns' perceived level of proficiency related to the MoSTEP quality indicators?

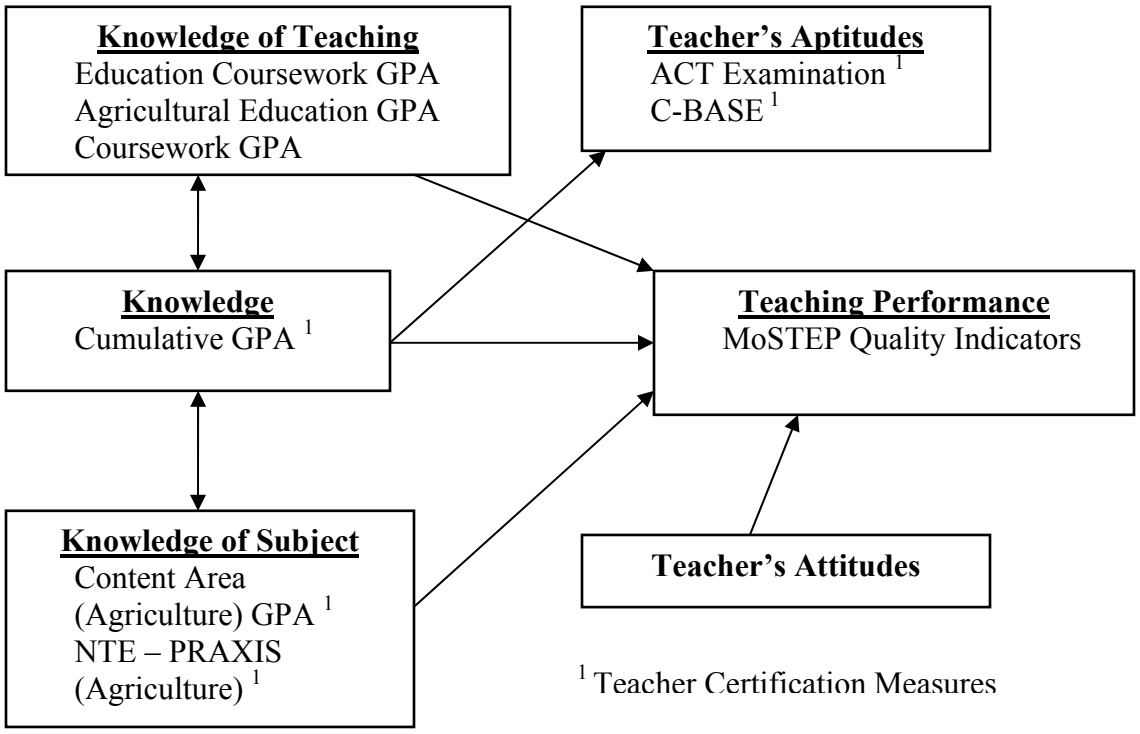

Figure 1. A Model of Potential Relationships between Teacher Certification Measures and the MoSTEP Quality Indicators. Adapted from McDonald, F., and Elias, P., "A Report on the Results of Phase Two of the Beginning Teacher Evaluation Study," *Journal of Teacher Education* 27 (Winter 1976).

Purpose and Objectives

The purpose of the study was to assess student teaching interns' level of proficiency of the MoSTEP quality indicators at the beginning and at the completion of the student teaching internship. The study further sought to compare the self-perceived proficiency levels of the teaching interns to their cooperating teachers' evaluations of the interns' level of proficiency on the MoSTEP quality indicators.

1. Describe teaching interns' self-perceived level of proficiency on the MoSTEP quality indicators at the beginning and completion of the student teaching internship.

2. Describe teaching interns' level of proficiency on the MoSTEP quality indicators, as assessed by their cooperating teachers, at the mid-point and completion of the teaching internship.

3. Compare the teaching interns' self-perceived level of proficiency to their respective cooperating teachers' assessment of the MoSTEP quality indicators at the completion of the student teaching internship.

4. Describe the teacher certification measures, or combination of measures, that were predictive of the teaching interns' performance of the MoSTEP quality indicators, as assessed by cooperating teachers.

Methods and Procedures

The study was descriptive-correlational in nature. The target population consisted of agriculture student teaching interns certifying to teach through the University of Missouri. The purposeful sample consisted of 7 male and 9 female teaching interns (n = 16). The purposeful sample also consisted of the teaching interns' respective cooperating teachers (n = 16), 15 male and 1 female. Oliver and Hinkle (1982) concluded that individuals in a selected group of a given year could be representative of similar groups in subsequent and/or prior years. This argument provided justification for the sample (n = 16) to be classified as a time and place sample, with inferential statistics applied to teaching interns over time. The 16 week student teaching internship was completed during the 2005 winter semester.

In conducting the study, six variables were used (Table 2). Four variables were categorized as teacher certification measures, with the variable of cumulative grade point average being subdivided into education GPA, agricultural education GPA, and content area (agriculture) GPA. Composite scores were used for ACT examination and NTE PRAXIS in agriculture. C-BASE scores were reported in the areas of English, writing, math, science, and social studies. Variables associated with the evaluation of the MoSTEP quality indicators included the Performance Based Student Teaching Internship Evaluation (PBSTIE) and the Student Teaching Internship Self-Assessment.

Table 2

Variables by Category

Teacher Certification Measures	MoSTEP Quality Indicators
1. ACT Examination	1. Performance Based Student Teaching Internship Evaluation (mid-point and final)
2. C-BASE Scores	2. Student Teaching Internship Self-Assessment (beginning and completion)
3. Cumulative Grade Point Average	
• Education GPA	
• Agricultural Education GPA	
• Content Area (Agriculture) GPA	
4. NTE PRAXIS – Agriculture	

The Performance Based Student Teaching Internship Evaluation (PBSTIE) was derived from the Missouri Standards for Teacher Education Programs (MoSTEP) and designed for cooperating teachers to assess the performance of teaching interns. Cooperating teachers used the instrument to assess teaching interns at the mid-point (8 weeks) and completion of the 16 week internship. Items of the PBSTIE were scored on a 6-point scale ranging from 1 – not meeting the standard to 6 – exceeds the standard. The second instrument was adapted from the PBSTIE and used by teaching interns to rate their self-perceived ability on the MoSTEP quality indicators. Teaching interns completed the self-assessment prior to beginning the internship and at the completion of the 16 week internship. Validity for the PBSTIE was established by faculty in the Teacher Development Program at the University of Missouri. Cronbach's alpha reliability coefficients for the PBSTIE ranged from 0.54 (content knowledge) to 0.89 (assessment and technology in teaching and learning). Inter-rater reliability, between the cooperating teachers, was a potential threat to the study. Therefore, a day-long workshop for cooperating teachers was conducted prior to the student teaching internship to normalize teachers on their use of the PBSTIE.

Findings

The first objective sought to describe teaching interns' self-perceived level of proficiency on the MoSTEP quality indicators at the beginning and completion of the student teaching internship (Table 3). Teaching interns' mean scores on the 11 MoSTEP quality indicators prior to the start of the student teaching internship ranged from lows of 3.07 in classroom management and 3.09 in diversity to a high of 3.86 in technology in teaching and learning. In addition, five quality indicators that were rated high, meaning adequate proficiency: professional responsibility (M = 3.77), communication (M = 3.75), reflection and professional growth (M = 3.71), curriculum (M = 3.53), and learners and learning (M = 3.52). Three quality indicators were rated in the somewhat proficient, but in need of improvement category: instruction (M = 3.38), content (M = 3.31), and assessment (M = 3.28). With a summated mean of 3.48, teaching interns perceived themselves somewhat proficient, but needed improvement in their scope and ability to perform the quality indicators.

Teaching interns' mean scores of the MoSTEP quality indicators at the completion of the student teaching internship ranged from 4.28 in diversity to 4.98 in communication and technology in teaching and learning. The summated mean score was 4.64 (SD = 0.55). Teaching interns perceived they had performed adequately, with some high levels of performance, by the completion of the student teaching internship. Teaching interns' perceived a growth of at least one point, on a 6-point scale, on all 11 MoSTEP quality indicators from the beginning of the internship to the completion.

Table 3

Teaching Interns' Self-Perceived Level of Proficiency on MoSTEP Quality Indicators (*n* = 16)

	Beginning			Completion		
MoSTEP Quality Indicator	*M*	*SD*	Range	*M*	*SD*	Range
Technology in Teaching and Learning	3.86	0.83	2.17 - 5.33	4.98	0.75	3.50 - 6.00
Professional Responsibility	3.77	0.68	2.50 - 5.33	4.90	0.60	3.50 - 6.00
Communication	3.75	0.66	2.40 - 5.00	4.98	0.49	4.00 - 6.00
Reflection and Professional Growth	3.71	0.87	1.67 - 5.33	4.79	0.70	3.67 - 6.00
Curriculum	3.53	0.56	2.60 - 4.60	4.65	0.65	3.40 - 5.80
Learners and Learning	3.52	0.50	2.50 - 4.50	4.51	0.61	3.50 - 5.75
Instruction	3.38	0.67	1.33 - 4.33	4.73	0.77	3.00 - 6.00
Content	3.31	0.39	2.90 - 4.20	4.32	0.53	3.40 - 5.30
Assessment	3.28	0.71	1.40 - 4.20	4.48	0.78	3.20 - 5.80
Diversity	3.09	0.54	2.00 - 4.00	4.28	0.76	3.25 - 5.75
Classroom Management	3.07	0.53	1.67 - 3.83	4.38	0.72	2.50 - 5.67
Summated Mean	3.48	0.51	2.19 - 4.28	4.64	0.55	3.69 - 5.60

Note. Self-assessments scored on a 6-point scale (1 = not proficient, 2 = slightly proficient, but need considerable improvement, 3 = somewhat proficient, but need improvement, 4 = adequately proficient, at an average level, 5 = very proficient, exceeding the norm, 6 = extremely proficient, well above and beyond the norm).

The second objective was to describe teaching interns' level of proficiency on the MoSTEP quality indicators, as assessed by their cooperating teachers, at the mid-point and completion of the teaching internship (Table 4). The mean scores on the MoSTEP quality indicators at the mid-point of the student teaching internship ranged from 4.25 in classroom management to 5.19 in professional responsibility and technology in teaching and learning. The summated mean score at the mid-point of the student teaching internship was 4.68 (*SD* = 0.49), an indication that the cooperating teachers perceived the teaching interns to be performing at an adequate level with some high levels of performance by the mid-point of the student teaching internship.

Table 4

Cooperating Teachers' Assessment of Teaching Interns' Level of Proficiency on the MoSTEP Quality Indicators (*n* = 16)

MoSTEP Quality Indicator	Mid-Point			Completion		
	M	*SD*	Range	*M*	*SD*	Range
Technology in Teaching and Learning	5.19	0.75	4.00 - 6.00	5.75	0.58	4.00 - 6.00
Professional Responsibility	5.19	0.75	4.00 - 6.00	5.44	0.96	3.00 - 6.00
Communication	4.75	0.86	3.00 - 6.00	5.31	0.95	3.00 - 6.00
Reflection and Professional Growth	4.75	0.68	4.00 - 6.00	5.25	0.58	4.00 - 6.00
Content	4.75	0.77	3.00 - 6.00	5.19	0.75	4.00 - 6.00
Instruction	4.69	0.70	4.00 - 6.00	5.50	0.63	4.00 - 6.00
Diversity	4.59	0.92	3.00 - 6.00	5.19	0.75	4.00 - 6.00
Curriculum	4.50	0.82	3.00 - 6.00	5.03	0.90	4.00 - 6.00
Assessment	4.50	0.63	4.00 - 6.00	5.00	0.82	4.00 - 6.00
Learners and Learning	4.38	0.81	3.00 - 6.00	5.00	0.63	4.00 - 6.00
Classroom Management	4.25	0.68	3.00 - 5.00	4.97	0.94	3.00 - 6.00
Summated Mean	4.68	0.49	3.77 - 5.73	5.24	0.59	4.00 - 6.00

Note. Assessments scored on a 6-point scale (1 – 2 = not meeting the standard, 3 – 4 = meets the standard, 5 – 6 = exceeds the standard).

The means of the MoSTEP quality indicators at the completion of the student teaching internship ranged from 4.97 for classroom management to 5.75 for technology in teaching and learning. The summated mean score was 5.24 (*SD* = 0.59), an indication that the cooperating teachers perceived the teaching interns frequently performed at a level "exceeding the standard" and strived to expand their abilities.

Objective three sought to compare teaching interns' self-perceived level of proficiency to their respective cooperating teachers' assessment of the MoSTEP quality indicators at the completion of the 16 week student teaching internship. Teaching interns' self-perceived summated level of proficiency of the MoSTEP quality indicators (*M* = 4.64, *SD* = 0.55) was slightly lower than the assessment provided by the cooperating teachers (*M* = 5.24, *SD* = 0.59). Teaching interns' means of the MoSTEP quality indicators at the completion of the student teaching internship ranged from 4.28 for diversity to 4.98 for communication and technology in teaching and learning. Mean ratings by the cooperating teachers ranged from 4.97 in classroom management to 5.75 in technology in teaching and learning (Table 5).

Table 5

Comparison of the Level of Proficiency on the MoSTEP Quality Indicators at Completion of the Student Teaching Internship (n = 16)

MoSTEP Quality Indicator	Teaching Interns			Cooperating Teachers			Difference
	M	*SD*	Range	*M*	*SD*	Range	
Diversity	4.28	0.76	3.25 - 5.75	5.19	0.75	4.00 - 6.00	0.91
Content	4.32	0.53	3.40 - 5.30	5.19	0.75	4.00 - 6.00	0.87
Technology in Teaching and Learning	4.98	0.75	3.50 - 6.00	5.75	0.58	4.00 - 6.00	0.77
Instruction	4.73	0.77	3.00 - 6.00	5.50	0.63	4.00 - 6.00	0.77
Classroom Management	4.38	0.72	2.50 - 5.67	4.97	0.94	3.00 - 6.00	0.59
Professional Responsibility	4.90	0.60	3.50 - 6.00	5.44	0.96	3.00 - 6.00	0.54
Assessment	4.48	0.78	3.20 - 5.80	5.00	0.82	4.00 - 6.00	0.52
Learners and Learning	4.51	0.61	3.50 - 5.75	5.00	0.63	4.00 - 6.00	0.49
Reflection and Professional Growth	4.79	0.70	3.67 - 6.00	5.25	0.58	4.00 - 6.00	0.46
Curriculum	4.65	0.65	3.40 - 5.80	5.03	0.90	4.00 - 6.00	0.38
Communication	4.98	0.49	4.00 - 6.00	5.31	0.95	3.00 - 6.00	0.33
Summated Mean	4.64	0.55	3.69 - 5.60	5.24	0.59	4.00 - 6.00	0.60

Perceived growth for the teaching interns was reported as the difference in teaching interns' self-perceived level of proficiency at the beginning of the student teaching internship to the completion (Table 6). Perceived growth of the teaching interns', as assessed by their cooperating teachers, was calculated as the difference between the mid-point and final assessments.

Cooperating teachers rated teaching interns higher on all 11 MoSTEP quality indicators than did teaching interns. The greatest difference in perceived growth between the teaching interns' self-perceptions and cooperating teachers' assessment was in diversity (0.91) and content (0.87). The least amount of difference in the perceived growth was in curriculum (0.38) and communication (0.33)

Table 6

Perceived Growth on the MoSTEP Quality Indicators (*n* = 16)

MoSTEP Quality Indicator	Perceived Growth	
	Teaching Interns	Cooperating Teachers
Instruction	1.35	.81
Classroom Management	1.31	.72
Communication	1.23	.56
Assessment	1.20	.50
Diversity	1.19	.60
Professional Responsibility	1.13	.25
Technology in Teaching and Learning	1.12	.56
Curriculum	1.12	.53
Reflection and Professional Growth	1.08	.50
Content	1.01	.44
Learners and Learning	0.99	.62
Summated Mean	1.16	.56

Teaching interns' self-perceived level of proficiency on all 11 MoSTEP quality indicators prior to the student teaching internship to the completion increased by at least one point. The greatest amount of growth, as perceived by the teaching interns over the 16 week internship, occurred in instruction (1.35) and classroom management (1.31). The least amount of growth was reported in content (1.01) and learners and learning (.99). Cooperating teachers reported teaching interns grew by at least .50 on the 11 MoSTEP quality indicators from mid-point to completion, with the exception of professional responsibility (.25). Cooperating teachers also reported that teaching interns grew the most in instruction (.81) and classroom management (.72).

The fourth objective sought to describe the teacher certification measures, or combination of measures, that were predictive of the teaching interns' performance of the MoSTEP quality indicators, as assessed by their respective cooperating teachers. Data for teacher certification measures were collected from the teaching interns' official transcripts. Teacher certification measures examined for teacher licensure in the selected state include: ACT Composite score, cumulative GPA, content area (agriculture) GPA, C-BASE scores (English, math, social studies, science, and writing), and NTE PRAXIS specialty area test. Each teaching interns' grade point average was further divided into education coursework GPA and agricultural education coursework GPA. Descriptive statistics were calculated for the teacher certification measures (Table 7). All teacher certification measures met or exceeded the state's requirements for teacher licensure.

Table 7

Descriptive Data of Teacher Certification Measures (*n* = 16)

Teacher Certification Measure	*M*	*SD*	Range	Minimum[a]
ACT Composite Score	25.88	3.03	20 - 31	22
Cumulative University GPA	3.53	0.29	3.04 - 3.96	2.75
Education Coursework GPA	3.72	0.18	3.20 - 3.92	- -
Agriculture Coursework GPA	3.50	0.40	2.73 - 4.00	2.50
Agricultural Education Coursework GPA	3.91	0.17	3.39 - 4.00	- -
C-BASE English	314.56	29.12	248 - 358	235
C-BASE Math	375.88	53.21	256 - 469	235
C-BASE Social Studies	325.81	37.88	250 - 378	235
C-BASE Science	335.75	63.65	208 - 417	235
C-BASE Writing	313.00	38.81	247 - 387	235
NTE PRAXIS (Agriculture)	613.33	53.01	510 - 720	520

[a]Minimum requirement for admission into the Teacher Development Program and/or for teacher licensure.

Bivariate correlations were initially used to examine potential issues with multicollinearity between the teacher certification measures, or predictor variables. Using guidelines suggested by Berry and Feldman (1985), each teacher certification measure was regressed on the remaining measures, or independent variables. Regressing the teacher certification requirements prior to removing any of the independent variables revealed several high R^2 values. Higher R^2 values were most noted in agriculture GPA at 0.94 and agricultural education GPA (0.87). Adjusted R^2 values and initial concerns for multicollinearity were examined, which led to the removal of cumulative university GPA from the regression equation and further consideration in the study.

Pearson Product moment correlations (*r*) were calculated between the cooperating teachers' final summative assessment of the teaching interns on the MoSTEP quality indicators and the teacher certification measures (Table 8). Stepwise multiple regression was utilized to determine the best teacher certification measure, or combination of teacher certification measures, that were predictive of the teaching interns' performance of the MoSTEP quality indicators. When the teacher certification measures were regressed on the dependent variable, there was no single certification measure, or combination of measures, that were found to be significant in predicting the teaching interns' level of proficiency on the MoSTEP quality indicators.

Table 8

Bivariate Correlations Between Cooperating Teachers' Final Assessment of the Teaching Intern and Teacher Certification Measures (n = 16)

Teacher Certification Measure	*r*
ACT Composite Score	-.01
Education GPA	.17
Agriculture GPA	-.03
Agricultural Education GPA	.02
C-BASE English	-.17
C-BASE Math	.23
C-BASE Social Studies	-.16
C-BASE Science	.24
C-BASE Writing	-.12
NTE PRAXIS (Agriculture)	.26

Conclusions/Recommendations/Implications

The student teaching internship made a positive difference in the teaching interns' level of proficiency on all 11 MoSTEP quality indicators. Nearly one point of growth existed between the teaching interns' self-perceived level of proficiency at the beginning of the student teaching internship and the completion of the internship on all 11 MoSTEP quality indicators. Teaching interns went from being somewhat proficient at the beginning of the student teaching internship, to adequately proficient at the completion. The greatest growth was in instruction and classroom management, implying that teaching interns may have been more apprehensive regarding classroom management skills and instruction at the beginning of the student teaching internship. The findings support prior research that teaching interns' levels of proficiency related to teaching competencies grow from the student teaching internship (Grimmett & Ratzlaff, 1986; Borne & Moss, 1990).

Teaching interns', as assessed by their respective cooperating teachers, met all the MoSTEP quality indicators by the completion of the student teaching internship. Teaching interns improved on all 11 MoSTEP quality indicators. A perceived improvement of at least a half a point, on a 6-point scale, was identified on 10 of the 11 MoSTEP quality indicators from the mid-point to final assessment. Professional responsibility only improved by 0.25, but was the highest rated indicator at the mid-point. In all, the margin between scores narrowed from the mid-point to the completion of the internship. Interestingly, the greatest growth displayed by the teaching interns on the MoSTEP quality indicators, as assessed by their respective cooperating teachers, was in instruction and classroom management. The implication is that the teaching internship provided learning and professional growth in these respective areas.

Cooperating teachers' assessments of their respective teaching interns affirmed that the student teaching internship is imperative in strengthening the interns' level of proficiency in regards to the MoSTEP quality indicators, as well as the profession. Teaching interns went from meeting

the standards to exceeding the standards as a result of the student teaching internship. Cooperating teachers perceived the teaching interns higher on the 11 MoSTEP quality indicators than the teaching interns perceived themselves by the completion of the student teaching internship. Teaching interns may be more critical on their level of proficiency on the MoSTEP quality indicators. Both teaching interns and cooperating teachers reported the greatest amount of growth in classroom management and instruction, which could be argued to be the most practiced quality indicator during the student teaching internship. It could be implied that teaching interns' may be more critical of their level of proficiency at the beginning of the student teaching internship when comparing themselves to their peers and cooperating teachers, but exceed the expected standard by the end of the student teaching internship.

The use of teacher certification measures by teacher education programs in admitting and retaining candidates for certification may be limiting quality candidates who may not meet the minimum teacher certification requirements. While teacher certification measures serve as evidence for teacher education programs that they are preparing highly qualified teachers for the profession, the measures are not reflective of the actual performance of future teachers in regard to the MoSTEP quality indicators. Therefore, teacher certification measures should be re-examined as admission and retention criteria for teacher education programs. It is also recommended that the appropriateness of using teacher certification measures for teacher education program criteria should be explored. Potential candidates for certification may be excluded unfairly by the use of existing teacher certification measures. Further investigation should be conducted on a larger sample and in other content areas. The findings of this study should be shared with cooperating teachers documenting the importance of the student teaching internship in preparing qualified teachers for the profession.

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