TEACHER EFFICACY OF NOVICE TEACHERS IN AGRICULTURAL EDUCATION IN OHIO AT THE END OF THE SCHOOL YEAR

THESIS

Presented in Partial Fulfillment of the Requirements for the Degree Master of Science in the Graduate School of The Ohio State University

By

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ABSTRACT

Because so many teachers leave the teaching profession early in their careers, the research investigated the differences in teachers' efficacy at the end of their first, second, or third year of teaching and the relation these differences had to teacher characteristics. The purpose of the study was to describe teacher efficacy at the end of the school year in novice (first- through third-year teachers) in agricultural education in Ohio related to stage of development, summer activities, classroom variables, and their future plans in teaching. This was a multiple one-shot case study investigation. Demographics were collected as part of a previous study, at the beginning of the school year, and a questionnaire was sent out at the end of April in 2002. Seventy-four percent (N = 73) of the teachers participated in the study.

First-year teachers, second-year teachers, and third-year teachers were similarly efficacious at the end of the school year. Although stage of development is theoretically important (Richardson & Placier, 2001), there was not enough variability in teacher efficacy across the three stages of development to find a significant relationship.

Forty-two teacher characteristic variables were correlated with the summed efficacy score and six were found to have significance. Out of these six variables, only two – the teachers’ agreement with the statement that their student teaching experience was excellent and the number of class preparations for which the teacher is responsible – were found to have significant effects on the teaching efficacy score.
When the teacher characteristics and demographics were reviewed, it was found that novice teachers in agricultural education were efficacious at the end of the school year. It was also found that teachers in the study who had mentors felt that their mentors were competent and supportive, that teachers had generally chosen teaching as a long-term career goal, felt that their job matched their personal and family needs, and felt confident about teaching in agricultural education, supporting Knobloch’s (2002) findings.
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VITAE

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TABLE OF CONTENTS

Abstract ........................................................................................................... ii
Acknowledgments .............................................................................................. iv
Vitae .................................................................................................................. v
List of Tables ...................................................................................................... ix
List of Figures ..................................................................................................... xi

Chapters

1. Introduction ................................................................................................. 1
   Statement of the Problem ............................................................................. 2
   Purpose of the Study .................................................................................... 3
   Objectives of the Study ................................................................................ 3
   Significance of the Study ............................................................................. 3
   Limitations of the Study ............................................................................. 4
   Definition of Terms .................................................................................... 5
   Basic Assumptions ...................................................................................... 7

2. Review of Related Literature ..................................................................... 9
   Objectives of the Study ................................................................................ 9
   The Conceptual Framework ....................................................................... 9
      Personal Factors ....................................................................................... 12
      Environmental Factors ........................................................................... 13
      Summary of Conceptual Framework ..................................................... 13
   Review of Related Literature ................................................................... 14
      Social Cognitive Theory .......................................................................... 14
      Self-Efficacy Theory ............................................................................... 16
      Teacher Beliefs ......................................................................................... 17
      Teacher Efficacy ....................................................................................... 18
   Summary ..................................................................................................... 24
   Operational framework of the Study ......................................................... 24
3. **Methods** ................................................................. 25
   - Objectives of the Study ........................................ 25
   - Type of Research ............................................... 25
   - Population and Subject Selection .......................... 26
   - Outcome Measures ............................................ 26
     - Dependent Variable Measures ............................ 26
     - Independent Variable Measures .......................... 27
   - The Teacher Efficacy Theory ................................ 28
   - Teacher Efficacy Measurement ............................... 29
   - Teacher Characteristics and Perceptions .................. 29
   - Validity of the Instrument .................................. 29
   - Reliability of the Instrument ............................... 29
   - Data Collection Procedures ................................ 30
     - Procedures .................................................. 30
   - Non-Response Error Control ................................ 31
   - Data Analysis .................................................. 31

4. **Results** ............................................................ 34
   - Objectives of the Study ...................................... 34
   - Response Rates .............................................. 35
   - Reliability .................................................... 35
   - Results for Objective 1: Differences in Teacher Efficacy Related to Stage of Development ........................... 36
   - Results for Objective 2: Teacher Efficacy Related to Stage of Development, Gender, and Teacher Activities .................................................. 37
   - Results for Objective 3: Teacher Characteristics and Perceptions .................................................. 45

5. **Conclusions/Implications/Recommendations** .......... 59
   - Objectives of the Study ...................................... 59
   - Type of Research .............................................. 59
   - Population and Subject Selection .......................... 60
   - Instrumentation .............................................. 60
   - Data Collection Procedures ................................ 60
   - Data Analysis .................................................. 61
   - Summary of Findings ........................................ 61
     - Differences in Teacher Efficacy Related to Stage of Development .................................................. 62
     - Teacher Efficacy Related to Stage of Development, Gender, and Teacher Activities .................................................. 62
     - Teacher Characteristics and Perceptions .................. 63
   - Conclusions, Discussions, and Implications ............. 65
     - Conclusion 1 .............................................. 65
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Level of measurement of the scales related to the dependent and independent variables of teacher efficacy.</td>
<td>33</td>
</tr>
<tr>
<td>4.1</td>
<td>Response rate by stage of development.</td>
<td>35</td>
</tr>
<tr>
<td>4.2</td>
<td>Post hoc reliability coefficients.</td>
<td>36</td>
</tr>
<tr>
<td>4.3</td>
<td>Descriptive date for teacher efficacy.</td>
<td>36</td>
</tr>
<tr>
<td>4.4</td>
<td>Descriptive statistics of mean differences of teacher efficacy by stages of development.</td>
<td>37</td>
</tr>
<tr>
<td>4.5</td>
<td>Correlation (r) of variables.</td>
<td>38</td>
</tr>
<tr>
<td>4.6</td>
<td>Summary data: Relationships of mean teacher efficacy score and teacher characteristic variables (N = 60).</td>
<td>43</td>
</tr>
<tr>
<td>4.7</td>
<td>Regression of teacher efficacy score on teacher characteristic factors.</td>
<td>44</td>
</tr>
<tr>
<td>4.8</td>
<td>Frequencies on stage of development for teacher efficacy.</td>
<td>45</td>
</tr>
<tr>
<td>4.9</td>
<td>Frequencies on educational degrees.</td>
<td>46</td>
</tr>
<tr>
<td>4.10</td>
<td>Frequencies on degree granting institutions.</td>
<td>46</td>
</tr>
<tr>
<td>4.11</td>
<td>Frequencies on majors and minors.</td>
<td>47</td>
</tr>
<tr>
<td>4.12</td>
<td>Frequencies on number of school districts in which teachers had taught.</td>
<td>48</td>
</tr>
<tr>
<td>4.13</td>
<td>Type of communities in which teachers were raised and taught.</td>
<td>48</td>
</tr>
<tr>
<td>4.14</td>
<td>Teachers’ years of involvement in a high school agricultural education program, FFA, and SAE projects.</td>
<td>49</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>4.15</td>
<td>Levels of leadership positions in the FFA</td>
<td>50</td>
</tr>
<tr>
<td>4.16</td>
<td>Levels of recognition for SAE project</td>
<td>51</td>
</tr>
<tr>
<td>4.17</td>
<td>Leadership positions in a college organization</td>
<td>51</td>
</tr>
<tr>
<td>4.18</td>
<td>Membership in local teachers’ association and leadership in the teaching profession</td>
<td>52</td>
</tr>
<tr>
<td>4.19</td>
<td>Attendance at technical update, FFA camp, county fair, and summer activities</td>
<td>53</td>
</tr>
<tr>
<td>4.20</td>
<td>Frequencies on the number of agricultural education teachers per department</td>
<td>53</td>
</tr>
<tr>
<td>4.21</td>
<td>Frequencies on the number of class preparations</td>
<td>54</td>
</tr>
<tr>
<td>4.22</td>
<td>Frequencies on the teachers’ perceptions of mentor competence and support</td>
<td>55</td>
</tr>
<tr>
<td>4.23</td>
<td>Frequencies on teachers’ perceptions of first-year and student teaching experiences (N = 64, 56)</td>
<td>56</td>
</tr>
<tr>
<td>4.24</td>
<td>Frequencies of teachers’ perceptions</td>
<td>58</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Relationships of teaching constructs (Knobloch, 2002)</td>
<td>2</td>
</tr>
<tr>
<td>2.1</td>
<td>Conceptual Framework (Knobloch, 2002)</td>
<td>11</td>
</tr>
<tr>
<td>2.2</td>
<td>The triadic reciprocity of the social cognitive theory</td>
<td>14</td>
</tr>
<tr>
<td>2.3</td>
<td>Relationships of efficacy expectancy, outcome expectancy, and Locus of control (Knobloch, 2002)</td>
<td>20</td>
</tr>
<tr>
<td>2.4</td>
<td>The cyclical nature of teacher efficacy</td>
<td>22</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

Nationally, a 75% reduction rate occurs from the beginning of undergraduate teacher education through the third year of teaching (National Commission on Teaching and America’s Future, 1996) and 17% of new public school teachers leave the profession within the first three years of teaching (National Center for Educational Statistics, 1997). Because of a traditional “sink or swim” mentality, many new teachers leave the profession or have a lower self-efficacy level (National Commission on Teaching and America’s Future, 1996). This turnover level is high because new teachers are often assigned the most difficult-to-teach students, given the greatest number of preparations and extracurricular duties, and given the most challenging teaching assignments (National Commission on Teaching and America’s Future).

Novice teachers in Agricultural Education are no different than teachers in other disciplines and they face these same challenges. The first year of teaching is exceptionally challenging for most beginning agriculture teachers (Talbert, Camp, & Heath-Camp, 1994). In multiple studies researchers found that beginning agriculture teachers were stressed, dissatisfied (Joerger & Boettcher, 2000), quiet, reserved, and hesitant to act, had low self-esteem, low self-confidence (Mundt, 1991), and low morale.
Henderson & Nieto, 1991). Wardlow, Barrick, and Warmbrod (1985) found that one out of every four agricultural education teachers in Ohio left the teaching profession after their first year.

According to Henderson and Nieto (1991), the idea of personal achievement and feelings of satisfaction are critical in whether or not beginning teachers remain in or leave the teaching profession. Teachers have greater job satisfaction when they believe they can teach and make positive impacts (Hoy & Miskel, 2001). Evidence supports the idea that teachers who leave teaching have lower teacher efficacy scores than those who remain (Burley, Hall, Villeme, & Brockmeier, 1991; Glickman & Tamashiro, 1982).

Statement of the Problem

Of great importance to a quality education is the need to have qualified and able teachers in the classroom. Having good teachers is not the only concern, but also of importance is keeping them in the classroom. As illustrated in Figure 1.1, motivated teachers will have greater teacher efficacy, will be more satisfied with their career in teaching, and will teach for a longer period of time than teachers with lower efficacy (Knobloch, 2002).

![Figure 1.1: Relationships of teaching constructs (Knobloch, 2002)](image-url)
Purpose of the Study

The purpose of the study was to measure teacher efficacy at the end of the school year of novice teachers in agricultural education in Ohio related to stage of development, gender, and teacher activities. The following research objectives guided the study.

Objectives of the Study

The objectives of the study were to:

1. Describe the difference in teacher efficacy between stages of development of first-year teachers, second-year teachers, and third-year teachers in agricultural education in Ohio at the end of the school year.

2. Explain the variance in teacher efficacy at the end of the school year related to stage of development, gender, and teacher activities.

3. Describe the population of the study using selected teacher characteristics and perceptions.

Significance of the Study

Teachers’ beliefs strongly influence how they teach (Pajares, 1992), and their development as teachers (Smylie, 1988). A teacher’s self-efficacy relates to their behavior, their goal-setting, planning, innovation and willingness to try new ideas, as well as their persistence and enthusiasm for teaching (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Because these beliefs are hard to quantify, Pajares (1992) states that self-efficacy and other belief subconstructs can be used to measure them. Teacher efficacy not
only has an influence on the behavior of the teacher, but it also has an impact on student achievement and motivation (Ashton & Webb, 1986; Guskey & Passaro, 1994; Tschannen-Moran, Wollfolk Hoy, & Hoy, 1998).

This study serves as a continuation of Knobloch’s (2002) study of preservice and novice teachers of agricultural education in Ohio. The study contributes to teacher educators’ understanding of the differences in levels of efficacy through different stages of the academic year, as well as through stages of development for novice teachers. Novice teachers can be offered opportunities and encouraged to participate in activities that will increase their teacher efficacy levels, thus contributing to their confidence as teachers, and their longevity in the teaching profession.

Limitations of the Study

Because the data were collected through a self-reported questionnaire, the validity of the data may be limited. Some of the first-year novice teachers may have already completed the Ohio State Teacher Efficacy Scale (OSTES) in classes before graduation, and all of the participants have received the OSTES on two previous occasions (beginning of the academic year and ten weeks into the academic year) through Knobloch’s (2002) study.

The participants in this study may not be representative of any past or future population, other than novice teachers in agricultural education in Ohio who were teaching and participated in the study during the 2001-2002 academic school year. The accessible population may not have included novice teachers who were not reported to the Ohio Department of Education after the beginning of the school year in 2001.
Because of this, the findings of this study cannot be generalized to include anyone beyond the accessible population of novice teachers in agricultural education in Ohio.

The design of this research was a survey study with a relational component. The small group sizes of the novice teachers limit the effect size and statistical power of the data. Also, generalizability and external validity is limited to the accessible population because a census was conducted. Due to the nature of the study, error related to survey studies was the major area of concern (see Chapter 3 – Methods).

Definition of Terms
As defined in Knobloch (2002):

Agriculture – the science or art of the production of plants and animals useful to humans and the preparation of these products for human use and marketing (Gove, 1981). The content of an agricultural education program relates to technical areas of agricultural production; agricultural supplies and services; agricultural mechanics; agricultural products; horticulture; natural resources; and forestry (Newcomb, McCracken, & Warmbrod, 1993).

Agricultural education – the scientific study of the principles and methods of teaching and learning as they relate to agriculture (Barrick, 1989; Williams, 1991).

Agriculture teacher – one who plans, delivers, and evaluates instruction, and facilitates the process in helping students learn about agriculture (Newcomb, McCracken, & Warmbrod, 1993).

Collective efficacy – a teacher’s perceived competence and task analysis that collectively teachers in the school can influence student achievement (Bandura, 1997).
Learning – a process by which person become changed in their knowledge, beliefs, attitudes, or behaviors through their own activity (Newcomb, McCracken, & Warmbrod, 1993) and educative experiences (Dewey, 1938).

Novice teacher – a teacher who is in the first, second, or third year of teaching (Knobloch, 2002). In this study, novice teachers in their first, second, or third year of teaching were defined by the Ohio Department of Education, Office of Career, Technical, and Adult Education.

Self-efficacy – one’s self-percept belief about his or her ability to perform a specific task in a specific context. “Perceived self-efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3).

Stage of development – teacher groups based on their degree of teaching experience (Knobloch, 2002). The three stages of development in this study were first-year teachers, second-year teachers, and third-year teachers. For the purpose of this study, teachers were assigned a stage of development by the Ohio Department of Education, Office of Career, Technical, and Adult Education according to their records of how long the teacher had been teaching agricultural education. This stage of development was confirmed by self-reporting answers by teachers on the questionnaire.

Teaching – teaching is best described as guiding and directing the learning process where learners acquire new knowledge, skills, or attitudes (Newcomb, McCracken, & Warmbrod, 1993).

Teacher efficacy – “the teacher’s belief in his or her capability to organize and execute courses or action required to successfully accomplish a specific teaching task in a
particular context” (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 233), and the teachers’ motivation to persist when faced with setbacks and their willingness to exert effort to overcome difficulties (Woolfolk, 2001). Teacher efficacy, in this study, is defined by the summated score of the teacher on the Ohio State Teacher Efficacy Scale (OSTES).

Other Definitions:

Supervised Agricultural Experience (SAE) – “The actual, planned application of concepts and principles learned in agricultural education. Students are supervised by agriculture teachers in cooperation with parents/guardians, employers and other adults who assist them in the development and achievement of their educational goals. The purpose is to help students develop skills and abilities leading toward a career” (National Council for Agricultural Education, 1992). SAE program are self-defined by participants in this study and respondents self-completed the questionnaire as to the number of years they had participated in an SAE program and the level of recognition they received for their work in their SAE.

Basic Assumptions

The study is supported on the idea of positivism and a basic epistemological position. Positivism assumes that research is conducted objectively and with valid and reliable instruments through a set of rigid steps. Positivism also assumes that data were collected and interpreted free of bias from the researcher. Participants responded to the questions individually and free from the presence of the researcher or other participants, so that although the responses were influenced by the participants’ values, the responses
should be free from the influence of the researcher or other respondents. Also, the researcher assumed that the respondents completed the questionnaires accurately and honestly.
CHAPTER 2

REVIEW OF RELATED LITERATURE

The purpose of the study was to measure the teacher efficacy at the end of the school year of novice teachers in agricultural education in Ohio related to stage of development, gender, and teacher activities. The following research objectives guided the study.

Objectives of the Study

The objectives of the study were to:

1. Describe the differences in teacher efficacy between stages of development of first-year teachers, second-year teachers, and third-year teachers in agricultural education in Ohio at the end of the school year.

2. Explain the variance in teacher efficacy at the end of the school year related to stage of development, gender, and teacher activities.

3. Describe the population of the study using selected teacher characteristics and perceptions.

The Conceptual Framework

The conceptual framework (Figure 2.1) of the study was grounded on Bandura's (1986, 1997) social cognitive and self-efficacy theories. When people self-reflect on their
own beliefs about their capacity to perform certain tasks in specific situations, this reflection is known as self-efficacy. According to Hoy (2001), self-efficacy is a type of belief that is a concept of teacher motivation.
Teacher Motivation
- Self-Efficacy Beliefs

Personal Factors
- Level of Thought
  - Multiple Intelligences
  - Triarchic Theory of Intelligence
    - Componential
    - Experiential
- Personality & Learning Styles
- Level of Motivation
  - Needs
  - Satisfaction
  - Goals
  - Beliefs
- Level of Development
  - Cognitive & Conceptual
  - Moral & Ego
  - Levels of Consciousness
  - Teacher Concerns
- Gender & Roles

Environmental Factors
- Interactions with
  - Students
  - Parents
  - Colleagues
  - Principal
- School Climate
  - Institutional Integrity
  - Initiating Structure
  - Consideration
  - Resource Support
  - Principal Influence
  - Morale
  - Academic Emphasis
- Levels of the Ecosystem
  - Microsystem
  - Mesosystem
  - Exosystem
  - Macrosystem
- Transition & Fortuitous Events

Teacher Efficacy

Teaching Performance

Student Achievement

Teacher Retention

Figure 2.1: Conceptual Framework (Knobloch, 2002)
Teacher efficacy is a type of self-efficacy and is the belief that a teacher has in his or her ability to organize and execute courses of action that are required to successfully accomplish a specific teaching task in a particular context (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). A teacher with high efficacy is a teacher who will persist when faced with setbacks and will exert more effort in order to overcome difficulties (Woolfolk, 2001). The three central components of the conceptual framework—personal factors, environmental factors, and behaviors, all interact in the beginning of the teaching career and affect teacher efficacy (Knobloch, 2001).

This study was focused on the personal factors related to stage of development and environmental factors relating to interactions with students and colleagues of novice teachers in their first three years of teaching in agricultural education in Ohio. The development of teachers, and their performance as teachers, influences and is influenced by the interaction of personal and environmental factors of the situations in which they teach (Knobloch, 2001).

Personal Factors

This study focuses on the level of development when studying the influence of personal factors on efficacy in intact groups of first-year teachers, second-year teachers, and third-year teachers. This area relates to developmental theories of cognition, conceptualization, moral development, ego development, consciousness, and concerns (Glickman, Gordon, Ross-Gordon, 2001).
Environmental Factors

The major area of interest for this study in environmental factors relates to teachers’ interactions with different people and the varied roles they play during these interactions. For this study, these factors deal mainly with teacher interactions with students (participation at fair, attendance at camp) and colleagues (attendance at summer conferences).

Summary of Conceptual Framework

The three central components of the conceptual framework—personal factors, environmental factors, and behaviors—all interact during the initial stages of a teaching career. They all influence each other and can be influenced by the others, but all are mediated by fundamental human capabilities, like self-reflection, through the beliefs, values, culture and experiences (Buriak, McNurlen, & Harper, 1996) of each person. For example, a teacher may have a low sense of efficacy due to transitions in their life (like moving and trying to become familiar with a new community). Facing a class of challenging students and having feelings of isolation or a lack of support could then compound this feeling. This feeling that circumstances are out of his or her control could lead to lower performance, poor student achievement, and a diminished motivation to teach (Bandura, 1997). A teacher with high efficacy, who had interactions that lead to positive outcomes, will be more likely to perform at a higher level of efficacy, have higher student achievement, and more motivation to remain in the teaching profession.
Review of Related Literature

These theories that built the conceptual framework are reviewed: social cognitive theory, self-efficacy theory as a motivational construct, teacher beliefs, teacher efficacy theory, teacher characteristics, and teacher change.

Social Cognitive Theory

Bandura’s (1986) social cognitive theory provided the base for the study because people function and develop within a broad network of social influences—people develop as a result of the interplay of self-system and the environment. Social cognitive theory can be useful to understand and predict individual and group behavior; identify ways in which behavior can be modified or changed; and serve as an intervention tool for psychological and sociological cases (Stone, 1998). Bandura states that human function is a product of the interaction of personal, behavioral, and environmental influences (Figure 2.2).

Figure 2.2: The triadic reciprocality of the social cognitive theory
According to Bandura (1986), interdependence of the three interacting factors do not typically develop symmetrically because of inequalities in social power, competencies, and self-regulatory skills. People conceive thoughts about themselves that develop and are verified through four different processes: (a) direct experiences, (b) vicarious experience or the effects produced by someone else's actions, (c) judgments voiced by others, and (d) deriving further knowledge from what they already know by using rules of inferences. Additionally, people have different reactions depending on their physical characteristics and their socially conferred roles and status (Bandura). In short, “what people think, believe, and feel affects how they behave” (Bandura, p. 25).

While Bandura (1986) presented the influence of the environment on personal factors and behaviors, he emphasized that in order for a person to have control over development, they also need effective tools of personal agency, as well as strong social support. Bandura stated that “a strong sense of personal agency requires the development of competencies, self-percepts of efficacy, and self-regulatory capabilities for exercising self-directedness” (Bandura, p. 38). People with strong personal agency are better able to provide support and direction for their actions, capitalize on planned or fortuitous opportunities, resist social traps, and disengage themselves from predicaments (Bandura). People with greater personal agency will have more options open to them because they have the capabilities to exercise more of these options and have more control over their personal behavior.

The strength of the social cognitive theory lies in the cognitive processing of the interactions and how beliefs, values, cultural resources, and experiences that a person has mediate the five fundamental human capabilities (Knobloch, 2002). Bandura (1986)
stated that people have five fundamental human capabilities that make them unique of all species: (a) people have an extraordinary capacity to symbolize; (b) people have the ability to solve cognitive problems and engage in self-directedness and forethought; (c) people learn vicariously by observing others; (d) people have self-regulatory mechanisms that provide the potential for self-directed changes in behavior; and (e) people make sense of their experience, explore their cognitions and self-beliefs, evaluate themselves, and alter their thinking and behavior through self-reflection. According to Bandura, a person’s ability to derive efficacy from self-reflection is the most powerful of the five fundamental human capabilities.

**Self-Efficacy Theory**

Self-efficacy theory is derived from Bandura’s social cognitive theory. According to Bandura (1986), a person’s motivation, affective states, and actions are based more on what that person believes than what is objectively the case. Because a person’s behaviors and thoughts are not only a product of their internal state, but also their environment, their self-efficacy beliefs, personal standards, and emotional states are influenced by education, economic conditions and other environmental factors.

Bandura (1997) defined self-efficacy as “beliefs in one’s capabilities to organize and execute the course of action required to produce given attainments” (p. 3). Success or failure is influenced by many things, but self-efficacy is important because it influences a person’s choices, actions, the amount of effort they give, how long they persevere when faced with obstacles, their resilience, their thought patterns and emotional reactions, and the level of achievement they ultimately attained (Bandura, 1986). Self-efficacy also
determines how well knowledge and skills are learned. People determine how well they can perform a task based on four sources of efficacy: (a) mastery experiences, (b) vicarious experiences, (c) verbal persuasion, and (d) physiological and affective states (Bandura, 1997).

Teaching efficacy is a type of self-efficacy and is a belief-oriented motivation construct. The next sections of the review will focus on teacher beliefs, teacher efficacy, teacher characteristics, and teacher change and development.

Teacher Beliefs

Teacher efficacy is a belief (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), and teacher beliefs influence how people teach, and how people learn. Because teacher beliefs are unexplored and overlooked, teachers may perpetuate antiquated and ineffective teaching practices (Pajares, 1992).

Beliefs and knowledge are difficult to define (Alexander & Dochy, 1995; Alexander, Schallert, & Hare, 1991). According to Pajares (1992), beliefs are based on evaluation and judgment, while knowledge is based on objective fact. Palmer (1998) asserted that teachers’ knowledge of students and content depends heavily on self-knowledge. If good teaching requires self-knowledge, then teachers’ beliefs play an important role in the process of teaching (Knobloch, 2002). This knowledge, and all knowledge, is filtered through beliefs to be interpreted (Pajares).

Beliefs can be changed through external catalysts of new and compelling knowledge, education, and experience or through internal stimulus if the believer is open-minded, questioning, or doubting (Alexander & Dochy, 1995). However, once beliefs are set, they are very hard to change.
Pajares (1992) offers some fundamental assumptions that can be made when studying teachers' educational beliefs: (a) beliefs are formed early and tend to self-perpetuate and persevere even against contradictions caused by reason, time, education, or experience; (b) people develop a belief system that harbors all beliefs acquired through the process of cultural transmission; (c) the belief system helps people adapt by defining and understanding the world and themselves; (d) knowledge and beliefs are integrally intertwined; (e) thought processes are precursors to and creators of beliefs and beliefs filter and shape the interpretations of knowledge and phenomena; (f) epistemological beliefs play a key role in interpreting knowledge and monitoring cognition; (g) beliefs are prioritized according to their connections or relationship to other beliefs or cognitive and affective structures; (h) belief substructure, also known as attitudes and values, are connected to a central belief in the system; (i) some beliefs are more inconvertible than others; (j) belief change rarely happens during adulthood, but it can occur through a conversion of one authority to another or a gestalt shift; (k) beliefs are instrumental in defining tasks, selecting cognitive tools, making decisions, and executing behaviors; (l) beliefs strongly influence perception; (m) an individual's beliefs strongly affect one's behavior; (n) beliefs must be inferred through belief statements, intentions, and behaviors; and (o) beliefs about teaching are well established by the time students get to college. Smylie (1988) stated that teachers' beliefs were the most significant predictors of individual change.

Teacher Efficacy

Teacher efficacy is defined as "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific
teaching task in a particular context” (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 233). Guskey and Passaro (1994) defined teacher efficacy as “teachers’ belief or conviction that they can influence how well students learn, even those who may be difficult or unmotivated” (p. 4). Also, Woolfolk (2001) added that teacher efficacy is the teachers’ motivation to persist when faced with obstacles, and the willingness to exert effort to overcome those obstacles.

Teacher efficacy had its beginning in the RAND studies (Armor et al., 1976) based on Rotter’s (1966) locus of control theory (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Those teachers who believed that the environment had more control over learner outcomes had an external locus of control. Those who believed the teacher had the most influence and were confident in their ability to influence students had an internal locus of control. Bandura (1997) identified teacher efficacy as a type of self-efficacy with two expectations: efficacy expectation (one’s perceived assessment of a performance) and outcome expectation (one’s perceived assessment of the consequence of a performance). Figure 2.3 illustrates the relationship of efficacy expectancy, outcome expectancy, and locus of control.
The first measures of teacher efficacy were two items based on Rotter's (1966) social learning theory in a RAND study (Armor et al, 1976). RAND item 1 stated, “When it comes right down to it, a teacher really can’t do much because most of a student’s motivation and performance depends on his or her home environment,” and represented the external locus of control. RAND item 2 stated, “If I really try hard, I can get through to even the most difficult or unmotivated students,” and represented the internal locus of control.

The next measure of efficacy was by Guskey (1981). This was a 30-item instrument, the Responsibility for Student Achievement (RSA). Guskey (1987) said that positive and negative outcomes indicated separate dimensions, not opposite ends of a continuous scale and this independently influenced efficacy. Also, Rose and Medway (1981) created the Teacher Locus of Control (TLC) that was a better predictor of teacher control (Knobloch, 2002).
behaviors than Rotter’s scale because it was more specific to teaching (Tschannen-Moran & Woolfolk Hoy, 2001).

Teacher efficacy has been researched using Gibson and Dembo’s (1984) Teacher Efficacy Scale with 30 items which measured both personal teaching efficacy (teachers’ evaluation of their abilities) and general teaching efficacy (teachers’ beliefs about the extent to which the environment can be controlled). Hoy and Woolfolk (1990) developed the Teacher Efficacy Scale—Short Form based on Gibson and Dembo’s Teacher Efficacy Scale, but with only 10 items.

The Ohio State Teacher Efficacy Scale (OSTES) was developed by Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) and assess both personal competence and an analysis of the tasks related to the resources and constraints in particular teaching contexts. The OSTES has yielded three factors responsible for 51% of the variance: Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management (Tschannen-Moran & Woolfolk Hoy, 2001).

Tschannen-Moran, Woolfolk Hoy and Hoy (1998) described the developmental process of teacher efficacy with an integrated and cyclical model (Figure 2.4). Teachers do not feel equally efficacious for all teaching situations because teacher efficacy is context specific. Also, people use their perceived affective states rather than recalled information to make judgments on their efficacy (Bandura, 1997).
Teaching efficacy beliefs are difficult to change once they are established (Woolfolk Hoy, 2000) and personal teaching efficacy has been found to increase during the first year of teaching, while outcome expectancy fell after student teaching (Woolfolk Hoy). Brown and Gibson (1982) found that teachers with 5 to 10 years of experience had the highest efficacy.

Some evidence shows that females have higher teaching efficacy (Evans & Tribble, 1986; Greenwood, Olejnik, & Parkay, 1990), but that males have higher efficacy when asked about their confidence in teaching science (Riggs, 1991). Coladarci and Breton (1991, April) also linked higher teacher efficacy scores with higher age, but a change in schools with a lowered efficacy.
Little research has been conducted related to teacher efficacy in agricultural education. Rodriguez (1997) found that, although the groups were not significantly different, second-year teachers had lower teaching efficacy than first-year teachers. Mundt (1991) found that beginning agriculture teachers lacked self-confidence and were stressed, frustrated, and isolated. Knobloch (2002) found that there was no significant difference in efficacy between first-, second-, and third-year teachers at the beginning of the school year, though in the first 10 weeks of classes, first-year teachers' efficacy scores dropped a greater amount than second- and third-year teachers, whose efficacy scores also dropped.

According to Knobloch's (2002) literature review, eight teacher characteristics are potentially related to teacher efficacy: (a) the quality of the teacher preparation program; (b) the length of the teacher certification program and years of education; (c) teacher's knowledge and competence; (d) teaching as a long-term career goal; (e) quality of first-year teaching experience; (f) leadership and professional involvement; (g) enrollment in a high school agricultural education program; and (h) teaching career matched personal needs. This information led Knobloch to develop his demographic questionnaire, but no correlations or regressions were performed to validate these ideas.

Darling-Hammond's (1999) review of literature identified variables presumed to be indicative of teachers' competence: (a) general academic ability and intelligence; (b) subject matter knowledge; (c) teaching experience; (d) knowledge of teaching and learning; (e) certification status; and (f) teacher behaviors and practices. Darling-Hammond also reported that the following teacher characteristics related most with student achievement; (a) a major or minor in the subject field; (b) teacher education
coursework and the quality of the teacher preparation program; (d) a five-year teacher education program; (f) fully certified teacher; (g) proficient verbal ability of teacher; (h) the flexibility, creativity, and adaptability of the teacher; (i) implementation of a range of teaching strategies and interaction styles; and (j) teachers who create an environment of active, purposeful and diagnostic teaching.

Summary

Expertise and beliefs of teachers influence the success of an agricultural education program (Anderson, 1977). Importance lies in understanding what influences teacher efficacy, in order to build better teachers and more effective teachers.

Operational Framework of the Study

The operational framework was selected from specific components of the conceptual framework. The focus of the study is on the dependent variable of teacher efficacy. The independent variables were stage of development, teacher activities and teacher characteristics. The stage of development will be represented by three intact groups of first year novice teacher, second year novice teachers, and third year novice teachers in Ohio in agricultural education. Teacher characteristics will be represented by teachers' self-reported answers.
CHAPTER 3

METHODS

The purpose of the study was to measure the teacher efficacy at the end of the school year of novice teachers in agricultural education in Ohio related to stage of development, gender, and teacher activities. The following research objectives guided the researcher through the study.

Objectives of the Study

The objectives of the study were to:

1. Describe the differences in teacher efficacy between stages of development of first-year teachers, second-year teachers, and third-year teachers in agricultural education in Ohio at the end of the school year.

2. Explain the variance in teacher efficacy at the end of the school year related to stage of development, gender, and teacher activities.

3. Describe the population of the study using selected teacher characteristics and perceptions.

Type of Research

This was a survey study with a relational component and was completed as part of a longitudinal study. There are five errors to consider when completing survey research – sampling error, selection error, frame error, measurement error, and non-response error.
Measurement error was controlled by having a reliable and valid instrument. Sampling and selection were not considered threats as this survey study was completed as a census. To control frame error, the most current list of novice teachers in agricultural education in Ohio from the Ohio Department of Education Bureau of Career, Technical, and Adult Education’s Agricultural Education Service was used. To control for non-response error the mean teacher efficacy scores of teachers who had completed Knobloch’s (2002) study but not this study were compared to those teachers who had completed both studies.

Population and Subject Selection

The target population was novice teachers in agricultural education in the first three years of teaching in Ohio public schools. The Ohio Department of Education Bureau of Career, Technical, and Adult Education’s Agricultural Education Service provided the frame for the accessible population. Teachers with previous teaching experience who had left the teaching profession and returned, but were still in their first three years of teaching, were asked to participate in the study. The most current frame was used, although some teachers may not have been included because some new hires were not reported to the Ohio Department of Education.

Outcome Measures

The data were collected using an instrument designed to measure teacher efficacy (Appendix A). Teacher characteristics and demographic items were previously collected (Appendix B) (Knobloch, 2002). No further demographic information was needed.

Dependent Variable Measures

The dependent variable of the study was teacher efficacy. Teacher efficacy was measured using Tschannen-Moran and Woolfolk Hoy’s (2001) Ohio State Teaching
Efficacy Scale (OSTES). This instrument measured teacher efficacy using Bandura’s (1997) efficacy scale based on 24 items. Each item was measured using a 9-point Likert-type scale, with anchors at: (1) Nothing; (3) Very Little; (5) Some Influence; (7) Quite A Bit; and (9) A Great Deal.

Validity and reliability were reviewed because quality, reflected by validity and reliability, is one of the most important issues in research (Trochim, 2000) and to control measurement error. The reliability of the OSTES instrument has ranged from 0.92 to 0.95 (Tschannen-Moran & Woolfolk Hoy, 2001). When a reliability test was run on the data from this survey, the reliability was found to be 0.94. The validity of the instrument was established after review by a panel of experts (Appendix C). The instrument was found to be valid and reliable.

Independent Variable Measures

The following demographic variables and teacher characteristics of novice teachers were collected previous to the study through Knobloch’s (2002) pretest: (a) gender; (b) age; (c) education; (d) college graduated from; (e) educational major; (f) educational minor; (g) years of teaching experience; (h) the number of school districts taught in; (i) type of community teacher grew up in; (j) years of enrollment in high school agricultural education program; (k) years of involvement in a SAE project; (l) level of leadership position held in the FFA; (m) years of involvement in a SAE project; (n) level of recognition received on a SAE project; (o) leadership involvement in college and professional associations; (p) membership in the local teachers’ association;
(q) leadership position relating to the teaching profession; (r) attendance at Tech Update; 
(s) attendance at FFA Camp with students; (t) interaction with students at the county fair; 
and (u) participation in summer activities with students.

Other demographic variables were collected using Knobloch’s (2002) posttest:
(a) student enrollment in agricultural education program; (b) number of agricultural 
education teachers in the department; (c) number of classroom preparations taught; 
(d) type of community school is located in; (e) utilization of a mentor; (f) perceived 
teaching competence of mentor; (g) perceived support of mentor; (h) perception of first 
year teaching experience; (i) perception of student teaching experience; (j) perceived 
quality of teacher preparation; (k) teaching as a long-term career goal; (l) plans to teach 
for five years; (m) teaching career match with personal and family needs; (n) teaching 
plans for next year; (o) perception of adequate funding to run the agricultural education 
program; and (p) confidence about teaching in agricultural education.

The Teacher Efficacy Theory

According to Bandura (2001), Tschannen-Moran, Woolfolk Hoy, and Hoy 
(1998), and Tschannen-Moran and Woolfolk Hoy (2001), certain considerations must be 
taken into account when measuring teacher efficacy: (a) include items of various levels of 
task demands (Bandura, 1997); (b) ask participants to judge their capabilities as of now, 
not potential or expected future capabilities; (c) allow respondents to indicate the strength 
of their efficacy beliefs in light of a variety of barriers and providing a broad range or 
response options; (d) provide the optimal level of specificity for measurement; (e) do not
measure efficacy so specific that predicative power is lost; and (f) measure the teachers’
assessments of their competence across the wide range of activities and task they are
expected to perform.

Teacher Efficacy Measurement

The OSTES instrument was not modified. The Ohio State Teacher Efficacy Scale
(Tschannen-Moran & Woolfolk Hoy, 2001) was pilot-tested and field-tested with
undergraduate and graduate students in agricultural education courses in 2000 and 2001
as a part of Knobloch’s (2002) study. The estimate of reliability for the 12 OSTES items
administered as a pilot test was 0.87, using Crobach’s (1951) alpha (Knobloch, 2002).

Teacher Characteristics and Perceptions

Teacher characteristics and perceptions were based on Darling-Hammond’s
(1999) review of literature and a review of over 40 case studies (Knobloch, 2002). A
panel of experts (Appendix C) reviewed the teacher characteristics and perceptions to
establish face and content validity.

Validity of the Instrument

The instrument used existing scales that tested content, construct, criterion-related
and predictive validity (Tschannen-Moran & Woolfolk Hoy, 2001). Face and content
validity in agricultural education were established by a review of the instrument by a
panel of experts in agricultural education (Appendix C). Field and pilot tests were also
conducted to establish validity and reliability of the instrument in agricultural education.

Reliability of the Instrument

The instrument used existing scales that were tested for internal validity
(Tschannen-Moran & Woolfolk Hoy, 2001). A pilot study was conducted with 42
preservice teachers enrolled in Agricultural Education at The Ohio State University during the 2000-2001 academic year to test for internal validity using Crombauch’s (1951) alpha. The estimate of reliability was 0.87 for the 12 item OSU Teacher Efficacy Scale items administered as the pilot test (Knobloch, 2002). Nunnally (1967) notes that a .5 to .6 estimate of reliability is acceptable.

Data Collection Procedures

Data were collected using Dillman’s (2000) tailored design method. The tailored design method has five parts: (a) respondent-friendly questionnaire; (b) up to five contacts with the recipient; (c) inclusion of self-addressed stamped envelopes; (d) personalized correspondence; and (e) a token incentive that is sent with the questionnaire (Dillman, 2000). The data were collected at one time.

Procedures

On April 22, 2002, the teachers were sent a hand-written prenotice message (Appendix D) on a postcard designed and printed by the researcher, informing them that they would receive a questionnaire within the next week. On April 29, 2002, a complete packet including the cover letter (Appendix E), instrument (Appendix A), a key chain, as an incentive, and a pre-addressed, stamped return envelope were sent out to the accessible population of novice teachers in agricultural education in Ohio. On May 7, 2002, eight days after the first questionnaire mailing, a thank you postcard (Appendix F) was sent to all of the participants in the study. The postcard thanked those who had participated in the study by returning their questionnaires and also reminded those who had not yet responded to complete and return their questionnaire. Between May 15 and May 24, non-respondents were contacted by telephone (Appendix G) to determine if they
had received the questionnaire. On May 27, 2002, a replacement questionnaire packet and cover letter (Appendix H) was sent to non-respondents.

Non-Response Error Control

Non-response error was controlled by comparing those novice teachers who had completed both the Knobloch (2002) study and this with the mean OSTES scores from the Knobloch (2002) study of those novice teachers who had only completed Knobloch’s study. A t-test for dependent groups was run on mean teacher efficacy scores for novice teachers who had completed both the Knobloch (2002) pre-test and this study’s questionnaire. When the statistical hypothesis of no difference between population means was tested at alpha = .05, the hypothesis was not rejected. The conclusion is that for those novice teachers who did not respond to this study but did respond to Knobloch’s (2002) study, the mean teacher efficacy score did not differ significantly from mean teacher efficacy scores of those teachers who participated in both studies. This conclusion leads the researcher to believe that there would then be no significant difference in the mean scores of the novice teachers who did not respond to this study from those who did respond and therefore the results can be generalized to the population.

Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences Personal Computer version (SPSS/PC+). Reverse items were recoded and subscales were aggregated into composite scores before analyzing the data. Participants whose responses were incomplete (not all items on the OSTES questionnaire were completed) were
automatically excluded by SPSS. Item mean substitution was not used on OSTES items or demographic variables. Population means, population standard deviations, and effect sizes were rounded to the nearest 1/100th.

Descriptive statistics were used to analyze the data because the study was a census. Effect sizes were calculated using Cohen's (1988) \( d \).

A full model multiple linear regression analysis was used to explain the percent of variance in teacher efficacy related to teacher characteristics and activities. Relationships of interval and ratio variables were described using the Pearson product-moment coefficient. Nominal and ordinal variable relationships were described using Spearman's \( \rho \). The alpha level was established \textit{a priori} at 0.05. The assumptions of multiple regression were met: (A) residuals were independent; (b) residuals had a mean of zero; (c) residuals were normally distributed; (d) residuals were not correlated with the independent variables; and (e) no multicollinearity existed.

Depending on the level of measurement of the variable, appropriate descriptive statistics—frequencies, percentages, means, and standard deviations—were used to describe the accessible population of novice teachers in agricultural education in Ohio. Table 3.1 identifies the level of measurement of subscales used to measure the dependent and independent variables.
### Table 3.1: Level of measurement of the scales related to the dependent and independent variables of teacher efficacy.

<table>
<thead>
<tr>
<th>Level of Measurement</th>
<th>Independent &amp; Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal</td>
<td><strong>Independent Variables:</strong> Stage of teacher development; gender; college graduated from; educational major; type of community grew up in; leadership involvement in college; membership in the local teachers’ association; leadership position related to the teaching profession; attendance at Tech Update; attendance at FFA camp, interaction with students at the county fair; participation in summer activities with students; type of community the school was located in; utilizing a mentor.</td>
</tr>
<tr>
<td>Ordinal</td>
<td><strong>Independent Variables:</strong> Level of education; level of leadership position in the FFA; level of recognition on SAE project; perceived teaching competence of mentor; perception of first year teaching experience; perception of student teaching experience; perceived quality of teacher preparation program; teaching as a long-term career goal; plans to teach for five years; perception of adequate agricultural education program funding; confidence about teaching agricultural education.</td>
</tr>
<tr>
<td>Interval</td>
<td><strong>Dependent Variable:</strong> Teacher efficacy.</td>
</tr>
<tr>
<td>Ratio</td>
<td><strong>Independent Variables:</strong> Age; years of teaching experience; number of districts taught in; years of enrollment in a high school agricultural education program; years of involvement in the FFA; years of involvement in a SAE project; student enrollment in program; number of agricultural education teachers in the department; number of preparations taught.</td>
</tr>
</tbody>
</table>
CHAPTER 4

RESULTS

The purpose of the study was to measure the teacher efficacy at the end of the school year of novice teachers in agricultural education in Ohio related to stage of development, gender, and teacher activities. The following research objectives guided the researcher through the study.

Objectives of the Study

The objectives of the study were to:

1. Describe the differences in teacher efficacy between stages of development of first-year teachers, second-year teachers, and third-year teachers in agricultural education in Ohio at the end of the school year.

2. Explain the variance in teacher efficacy at the end of the school year related to stage of development, gender, and teacher activities.

3. Describe the population of the study using selected teacher characteristics and perceptions.
Response Rates

The response rates of the three stages of teacher development are reported.

Seventy-three teachers out of 99 responded, but six were not usable due to teachers not completing any part of the questionnaire or being past their first three years of teaching. This yielded a usable response rate of sixty-seven out of 99 or 67.7%.

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year Novice Teachers</td>
<td>23</td>
</tr>
<tr>
<td>Second-Year Novice Teachers</td>
<td>22</td>
</tr>
<tr>
<td>Third-Year Novice Teachers</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
</tr>
</tbody>
</table>

Table 4.1: Response rates by stage of development.

Reliability

The instrument used to determine the dependent variable was checked for reliability using Cronbach’s alpha and is reported in Table 4.2. During the data collection for independent variables, the pretest teacher efficacy scale had a reliability coefficient of 0.93 ($N = 102$) and the reliability coefficient for the posttest teacher efficacy scale was 0.94 ($N = 101$) (Knobloch, 2002). The reliability coefficient for the end-of-year teacher efficacy scale was 0.94. All variables were reliable (Nunnally, 1967).
Results for Objective 1: Differences in Teacher Efficacy

The teachers ranged from 6.65 to 6.85 on teacher efficacy at the end of the school year (Table 4.3). The population standard deviations (s) are reported under each population mean (µ) in parentheses. The three stages of development had mean differences of 0.02 to 0.20 (Table 4.4). The effect sizes on these differences were small and ranged from 0.02 to 0.15 (Cohen, 1988). At the end of the school year, second-year teachers had the highest teacher efficacy (6.85) and the first- and third-year teachers had lower efficacy (6.67 and 6.65 respectively).

Table 4.2: Post hoc reliability coefficients.

Table 4.3: Descriptive data for teacher efficacy.

Scale: 1 = Nothing, 3 = Very Little, 5 = Some Influence, 7 = Quite a Bit, 9 = A Great Deal.
<table>
<thead>
<tr>
<th>Stage of Development (I)</th>
<th>Stage of Development (J)</th>
<th>Mean Difference (I-J)</th>
<th>Effect Size</th>
<th>Cohen's Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year teacher (N = 23)</td>
<td>Second-year</td>
<td>.18</td>
<td>.14</td>
<td>Small</td>
</tr>
<tr>
<td>First-year teacher (N = 23)</td>
<td>Third-year (N = 22)</td>
<td>.02</td>
<td>.02</td>
<td>Small</td>
</tr>
<tr>
<td>Second-year teacher (N = 22)</td>
<td>Third-year</td>
<td>.20</td>
<td>.15</td>
<td>Small</td>
</tr>
</tbody>
</table>

Scale: 1 = Nothing, 3 = Very Little, 5 = Some Influence, 7 = Quite a Bit, 9 = A Great Deal.

Table 4.4: Descriptive statistics of mean differences of teacher efficacy by stages of development.

**Results for Objective 2: Teacher Efficacy Related to Stage of Development, Gender, and Teacher Activities**

Forty-two variables related to stage of development, gender, and teacher activities were correlated to the summed teacher efficacy score for each teacher. Six variables were found to be significantly related to teacher efficacy (Table 4.5). The alpha level was established *a priori* at 0.05.
Table 4.5: Correlation (?) of variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students Enrolled in Ag Ed (N = 64)</td>
<td>.269</td>
</tr>
<tr>
<td>Number of Class Preparations (N = 61)</td>
<td>-.363</td>
</tr>
<tr>
<td>Excellent Student Teaching Experience (N = 60)</td>
<td>.393</td>
</tr>
<tr>
<td>Do Not Plan to Teach Next Year (N = 65)</td>
<td>-.270</td>
</tr>
<tr>
<td>Plan to Teach for at Least Five Years (N = 65)</td>
<td>.435</td>
</tr>
<tr>
<td>Feel Confident about Teaching Ag Ed (N = 65)</td>
<td>.327</td>
</tr>
</tbody>
</table>

Table 4.6 contains population means, population standard deviations, and the intercorrelationss of number of students enrolled in agricultural education, number of class preparations for which the teacher is responsible, the perceived excellence of the teacher’s student teaching experience, the teacher’s agreement with the statement that they do not plan to teach next year, the teacher’s agreement with the statement that they plan to teach for at least five years, the teacher’s perceived confidence in their ability to teach agricultural education and the mean scores for teacher efficacy.

Using the Davis (1971) conventions to describe the magnitude of the relationships, one relationship was found to have a very high association, one to be substantial, seven to be moderate, eight to be low, and four to be negligible. The
correlation of the number of students in the program with the number of class preparations had a -.10 ($r^2 = .01$) relationship, which was low. This indicates that as the number of students in the program increases, the number of class preparations tends to decrease. The correlation of the number of students enrolled in the program with the perceived excellence of the student teaching experience had a .33 ($r^2 = .11$) relationship, which was moderate. This indicates that as the number of students in the program increases, the perceived excellence of the student teaching experience also tends to increase. The correlation of number of students enrolled with the level of agreement with the statement that the teacher does not plan to teach next year had a -.20 ($r^2 = .04$) relationship, which was low. This indicates that as the number of students in the program increases, the level of agreement with the statement that the teacher does not plan to teach next year tends to decrease. The correlation of number of students enrolled in the program with agreement with the statement that they plan to teach for at least five years was .10 ($r^2 = .01$), which is low. This indicates that as the number of students in the program increases, agreement with the statement that they plan to teach for at least five years also tends to increase. When the number of students enrolled was correlated with teachers' perceived confidence about teaching, the relationship was .04 ($r^2 \leq .01$), which is negligible. This indicates that as the number of students in the program increases, teachers' perceived confidence about teaching also tends to increase. When the number of students enrolled was correlated with the teacher efficacy score, the relationship was .27 ($r^2 \leq .07$), which is low. This indicates that as the number of students in the program increase, the teacher efficacy score also tends to increase.
When the number of class preparations a teacher was responsible for was correlated with the perceived excellence of the student teaching experience, the relationship was -.02 ($r^2 < 0.00$), which is negligible. This indicates that as the number of class preparations a teacher was responsible for increases, the perceived excellence of the student teaching experience tends to decrease. When the number of class preparations was correlated with teachers’ agreement with the statement that they do not plan to teach next year, the relationship was .09 ($r^2 = 0.01$), which is negligible. This indicates that as the number of class preparations a teacher was responsible for increases, teachers’ agreement with the statement that they do not plan to teach next year also tends to increase. When the number of class preparations was correlated with teachers’ agreement with the statement that they plan to teach for at least five years, the relationship was -.24 ($r^2 = 0.06$), which is low. This indicates that as the number of class preparations a teacher was responsible for increases, teachers’ agreement with the statement that they plan to teach for at least five years tends to decrease. When the number of class preparations was correlated with teachers’ perceived confidence about teaching, the relationship was -.01 ($r^2 < 0.01$), which is negligible. This indicates that as the number of class preparations a teacher was responsible for increases, teachers’ perceived confidence about teaching tends to decrease. When the number of class preparations was correlated with teacher efficacy score, the relationship is -.36 ($r^2 = .13$) which is moderate. This indicates that as the number of class preparations a teacher was responsible for increases, teacher efficacy score tends to decrease.

When the perceived excellence of the student teaching experience was correlated with teachers’ agreement with the statement that they do not plan to teach next year, the
relationship was -.17 ($r^2 = .03$), which is low. This indicates that as perceived excellence of the student teaching experience increases, teachers’ agreement with the statement that they do not plan to teach next year tends to decrease. When the perceived excellence of the student teaching experience was correlated with teachers’ agreement with the statement that they plan to teach for at least five years, the relationship was .26 ($r^2 = .07$), which is low. This indicates that as perceived excellence of the student teaching experience increases, teachers’ agreement with the statement that they plan to teach for at least five years also tends to increase. When the perceived excellence of the student teaching experience was correlated with teachers’ perceived confidence about teaching, the relationship was .46 ($r^2 = .21$), which is moderate. This indicates that as perceived excellence of the student teaching experience increases, teachers’ perceived confidence about teaching also tends to increase. When the perceived excellence of the student teaching experience was correlated with teacher efficacy score, the relationship was .39 ($r^2 = .15$) which is moderate. This indicates that as perceived excellence of the student teaching experience increases, teacher efficacy score also tends to increase.

When the level of agreement with the statement that they do not plan to teach next year was correlated with teachers’ agreement with the statement that they plan to teach for at least five years, the relationship was -.72 ($r^2 = .52$), which is very high. This indicates that as the level of agreement with the statement that they do not plan to teach next year increases, teachers’ agreement with the statement that they plan to teach for at least five years tends to decrease. When the level of agreement with the statement that they do not plan to teach next year was correlated with teachers’ perceived confidence about teaching, the relationship was -.39 ($r^2 = .15$), which is moderate. This indicates that
as the level of agreement with the statement that they do not plan to teach next year increases, teachers’ perceived confidence about teaching tends to decrease. When the level of agreement with the statement that they do not plan to teach next year was correlated with teacher efficacy score, the relationship was -.27 ($r^2 = .07$) which is low. This indicates that as the level of agreement with the statement that they do not plan to teach next year increases, teacher efficacy score tends to decrease.

When the level of agreement with the statement that they plan to teach for at least five years was correlated with teachers’ perceived confidence about teaching, the relationship was .60 ($r^2 = .36$), which is substantial. This indicates that as level of agreement with the statement that they plan to teach for at least five years increases, teachers’ perceived confidence about teaching also tends to increase. When the level of agreement with the statement that they plan to teach for at least five years was correlated with teacher efficacy score, the relationship was .44 ($r^2 = .19$) which is moderate. This indicates that as level of agreement with the statement that they plan to teach for at least five years increases, teacher efficacy score also tends to increase.

When the perceived confidence about teaching in agricultural education was correlated with teacher efficacy score, the relationship was .33 ($r^2 = .11$) which is moderate. This indicates that perceived confidence about teaching in agricultural education increases, teacher efficacy score also tends to increase.
<table>
<thead>
<tr>
<th>Variables</th>
<th>$X_2$</th>
<th>$X_3$</th>
<th>$X_4$</th>
<th>$X_5$</th>
<th>$X_6$</th>
<th>$Y_7$</th>
<th>$\mu$</th>
<th>$s$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(X_1) Number of Students Enrolled</td>
<td>-.10*</td>
<td>.33</td>
<td>-.20</td>
<td>.10</td>
<td>.04</td>
<td>.27*</td>
<td>84.7</td>
<td>51.6</td>
</tr>
<tr>
<td>(X_2) Number of Class Preparations</td>
<td>-.02</td>
<td>.09</td>
<td>-.24</td>
<td>-.01</td>
<td>-.36*</td>
<td>3.37</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td>(X_3) Student Teaching Experience$^A$</td>
<td>-.17</td>
<td>.26</td>
<td>.46</td>
<td>.39</td>
<td></td>
<td>5.22</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>(X_4) Do Not Plan to Teach Next Year$^A$</td>
<td>-.72</td>
<td>-.39</td>
<td>-.27</td>
<td></td>
<td></td>
<td>1.22</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td>(X_5) Plans to Teach for Five Years$^A$</td>
<td></td>
<td>.60</td>
<td>.44</td>
<td></td>
<td></td>
<td>5.20</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>(X_6) Confidence about Teaching$^A$</td>
<td></td>
<td></td>
<td></td>
<td>.33</td>
<td></td>
<td>5.01</td>
<td>1.16</td>
<td></td>
</tr>
<tr>
<td>(Y_7) Teacher Efficacy$^B$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.71</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

Note. $^A$Scale: 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Moderately Agree, 6 = Strongly Agree; $^B$Scale: 1 = Nothing, 3 = Very Little, 5 = Some Influence, 7 = Quite A Bit, 9 = A Great Deal; *Pearson Product-Moment Correlation; All others are Spearman’s rho

Table 4.6: Summary data: Relationships of mean teacher efficacy score and teacher characteristic variables (N = 60).

The teacher efficacy score was regressed on the six variables (number of students enrolled in agricultural education, number of class preparations, excellent student teaching experience, plans to teach next year, plans to teach for at least five years, and perceived confidence in teaching agricultural education) were entered into a linear regression model (Table 4.7). Two variables were found to have significant relationships.
to the teacher efficacy score. For each additional class preparation for which a teacher was responsible, the summed teacher efficacy score was lowered by 4.16 points. For each unit increase of agreement with the statement that the teacher had an excellent student teaching experience, the summed teaching efficacy score was raised by 4.81 points. The full model (adjusted for shrinkage) explained 34.0% of the variance in teacher efficacy.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized</th>
<th>Full Model Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$</td>
<td>$SE$</td>
</tr>
<tr>
<td>Number of Students Enrolled in Ag Ed</td>
<td>.048</td>
<td>.049</td>
</tr>
<tr>
<td>Number of Class Preparations</td>
<td>-4.16</td>
<td>1.74</td>
</tr>
<tr>
<td>Excellent Student Teaching Experience</td>
<td>4.81</td>
<td>2.28</td>
</tr>
<tr>
<td>Do Not Plan to Teach Next Year</td>
<td>2.40</td>
<td>3.22</td>
</tr>
<tr>
<td>Plan to Teach for at Least Five Years</td>
<td>6.32</td>
<td>3.55</td>
</tr>
<tr>
<td>Feel Confident about Teaching Ag Ed</td>
<td>.843</td>
<td>2.738</td>
</tr>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>103.72</td>
<td></td>
</tr>
</tbody>
</table>

Note.  Full Model: $R = .643; R^2 = .414; R^2_{adj} = .340; F = 5.642; SE = 16.91; p \leq .001$

Table 4.7: Regression of Teacher Efficacy Score on Teacher Characteristic Factors.
Results for Objective 3: Teacher Characteristics and Perceptions

The following selected teacher characteristics were the results for the third objective of this study. Based on the teachers who completed the demographics questionnaire (N = 67), 34% (N = 23) were first-year teachers, 33% (N = 22) were second-year teachers, and 33% (N = 22) were third-year teachers (Table 4.8). Three percent (N = 2) were returning teachers who had retired or left the teaching profession and had previous teaching experience. Fifty-six percent (N = 36) were male and 44% (N = 28) were female. The average age of teachers in the study was 26.6 (N = 64, s = 6.92), ranging from 21 to 58 years.

<table>
<thead>
<tr>
<th>Stage</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year Novice Teachers (N  = 23)</td>
<td>34%</td>
</tr>
<tr>
<td>Second-Year Novice Teachers (N = 22)</td>
<td>33%</td>
</tr>
<tr>
<td>Third-Year Novice Teachers (N = 22)</td>
<td>33%</td>
</tr>
</tbody>
</table>

Table 4.8: Frequencies on stage of development for teacher efficacy.

Two percent (N = 13) of the teachers did not have a degree beyond a high school diploma, 3% (N = 2) held an associates degree, 84% (N = 54) held a bachelors degree, and 11% (N = 7) had earned a masters degree (Table 4.9). This indicates that some teachers in Ohio completed alternate certification programs where industry work counts as credit towards a teacher education program.
Table 4.9: Frequencies on educational degrees.

<table>
<thead>
<tr>
<th>Stage</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Diploma (N = 1)</td>
<td>2%</td>
</tr>
<tr>
<td>Associates Degree (N = 2)</td>
<td>3%</td>
</tr>
<tr>
<td>Bachelors Degree (N = 54)</td>
<td>84%</td>
</tr>
<tr>
<td>Masters Degree (N = 7)</td>
<td>11%</td>
</tr>
</tbody>
</table>

Eighty percent (N = 50) of the teachers had graduated from The Ohio State University, 9% (N = 6) had degrees from Wilmington College, and 11% (N = 7) had degrees from other institutions (Table 4.10).

Table 4.10: Frequencies on degree granting institutions.

<table>
<thead>
<tr>
<th>Stage</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ohio State University (N = 50)</td>
<td>80%</td>
</tr>
<tr>
<td>Wilmington College (N = 6)</td>
<td>9%</td>
</tr>
<tr>
<td>Other Institutions (N = 7)</td>
<td>11%</td>
</tr>
</tbody>
</table>
Eighty-two percent ($N = 51$) of the teachers had majored in agricultural education and 18% ($N = 11$) had majors other than agricultural education. Eighty percent ($N = 45$) had a minor in production agriculture and agriscience and 20% ($N = 11$) had minors other than production agriculture and agriscience (Table 4.11).

<table>
<thead>
<tr>
<th>Stage</th>
<th>$f$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education Major ($N = 51$)</td>
<td>82%</td>
</tr>
<tr>
<td>Other Major ($N = 11$)</td>
<td>18%</td>
</tr>
<tr>
<td>Production Agriculture &amp; Agriscience Minor ($N = 45$)</td>
<td>80%</td>
</tr>
<tr>
<td>Other Minor ($N = 11$)</td>
<td>20%</td>
</tr>
</tbody>
</table>

Table 4.11: Frequencies on majors and minors.

Sixty-seven percent ($N = 43$) of teachers had taught in one school district, 17% ($N = 11$) had taught in two school districts, 3% ($N = 2$) had taught in three school districts, 2% ($N = 1$) had taught in more than three school districts, and 11% ($N = 7$) marked the item not applicable (Table 4.12).
<table>
<thead>
<tr>
<th>Number of Districts</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>One District (N = 43)</td>
<td>67%</td>
</tr>
<tr>
<td>Two Districts (N = 11)</td>
<td>17%</td>
</tr>
<tr>
<td>Three (N = 2)</td>
<td>3%</td>
</tr>
<tr>
<td>More than Three (N = 1)</td>
<td>2%</td>
</tr>
<tr>
<td>Not Applicable (N = 7)</td>
<td>11%</td>
</tr>
</tbody>
</table>

Table 4.12: Frequencies on number of school districts in which teachers had taught.

Fifty-five percent (N = 35) of the teachers grew up in a farming community, 22% (N = 14) grew up in a rural community, 12% (N = 8) of the teachers grew up in a small town, 6% (N = 4) grew up in a suburban community, and 5% of the teachers grew up in an urban community. Thirty percent (N = 19) of the teachers taught in a farming community, 21% (N = 14) taught in a rural community, 35% (N = 22) of the teachers taught in a small town, 11% (N = 7) taught in a suburban community, and 3% (N = 2) of the teachers taught in an urban community (Table 4.13).

<table>
<thead>
<tr>
<th>Type of Community</th>
<th>Grew Up In</th>
<th>Taught In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Suburban</td>
<td>6%</td>
<td>11%</td>
</tr>
<tr>
<td>Small Town</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>Rural</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td>Farm</td>
<td>55%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Table 4.13: Type of communities in which teachers were raised and taught.
Sixteen percent (N = 10) of the teachers were not enrolled in an agricultural education program in high school, 3% (N = 2) were enrolled for one year, 2% (N = 1) of the teachers were enrolled for two years, 6% (N = 4) were enrolled for three years, and 73% (N = 47) of the teachers were enrolled for four years in an agricultural education program in high school. Fifteen percent (N = 10) of teachers were not members of the FFA, 3% (N = 2) were members for one year, 3% (N = 2) of the teachers were members for two years, 5% (N = 3) were members for three years, and 74% (N = 48) were members of the FFA for four years. Fourteen percent (N = 9) of the teachers did not have Supervised Agricultural Education (SAE) projects, 3% (N = 2) had projects for one year, 3% (N = 2) of the teachers had projects for two years, 3% (N = 2) had projects for three years, and 77% (N = 48) of the teachers had SAE projects for four years (Table 4.14).

<table>
<thead>
<tr>
<th>Years</th>
<th>HS Ag. Ed. Program</th>
<th>FFA</th>
<th>SAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>16%</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>One</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Two</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Three</td>
<td>6%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Four</td>
<td>73%</td>
<td>74%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Table 4.14: Teachers’ years of involvement in a high school agricultural education program, FFA, and SAE projects.
Of the teachers, 60% (N = 38) were chapter officers, 19% (N = 12) were state officers, and 3% (N = 2) were national officers. Eighteen percent (N = 11) were either not officers or the item was not applicable (Table 4.15).

<table>
<thead>
<tr>
<th>Levels</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Officer (N = 38)</td>
<td>60%</td>
</tr>
<tr>
<td>State Officer (N = 12)</td>
<td>19%</td>
</tr>
<tr>
<td>National Officer (N = 2)</td>
<td>3%</td>
</tr>
<tr>
<td>Not an Officer or Not Applicable (N = 11)</td>
<td>18%</td>
</tr>
</tbody>
</table>

Table 4.15: Levels of leadership positions in the FFA.

Thirty-eight percent (N = 24) of the teachers were recognized at the chapter level for their SAE projects, 22% (N = 14) were recognized at the state level, and 22% (N = 14) of the teachers were recognized for their SAE projects at the national level. Eighteen percent (N = 11) of the teachers’ projects were not recognized or the item was not applicable (Table 4.16).
Chapter Recognition (N = 24)
State Recognition (N = 14)
National Recognition (N = 14)
Not Applicable (N = 11)

<table>
<thead>
<tr>
<th>Levels</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Recognition (N = 24)</td>
<td>38%</td>
</tr>
<tr>
<td>State Recognition (N = 14)</td>
<td>22%</td>
</tr>
<tr>
<td>National Recognition (N = 14)</td>
<td>22%</td>
</tr>
<tr>
<td>Not Applicable (N = 11)</td>
<td>18%</td>
</tr>
</tbody>
</table>

Table 4.16: Levels of recognition for SAE project.

Sixty-five percent (N = 41) of the teachers held a leadership position in a college organization and 35% (N = 22) did not (Table 4.17)

<table>
<thead>
<tr>
<th>Position</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (N = 41)</td>
<td>65%</td>
</tr>
<tr>
<td>No (N = 22)</td>
<td>35%</td>
</tr>
</tbody>
</table>

Table 4.17: Leadership positions in a college organization.

Nineteen percent (N = 12) of the teachers were members of the local teachers’ association, 76% (N = 49) were not, and 5% (N = 3) marked the item not applicable.
Twenty-three percent (N = 15) of the teachers held a leadership position relating to the teaching profession, while 74% (N = 47) did not, and 3% (N = 2) marked the item as not applicable (Table 4.18).

<table>
<thead>
<tr>
<th>Professional Involvement</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member of local teacher’s association</td>
<td>19%</td>
<td>76%</td>
<td>5%</td>
</tr>
<tr>
<td>Leadership position in the teaching profession</td>
<td>23%</td>
<td>74%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Table 4.18: Membership in local teachers’ association and leadership in the teaching profession.

Sixty-seven percent (N = 42) of the teachers attended the technical agriculture update conference (Tech Update) in 2001 and 33% (N = 21) of the teachers did not attend Tech Update. Thirty-seven percent (N = 23) of teachers attended FFA camp with their students in 2001 and 63% (N = 40) did not attend FFA camp. Eighty-eight percent (N = 56) of the teachers interacted with their students at the county fair and 12% (N = 8) did not. Eighty-four percent (N = 52) of the teachers participated in summer activities with their students and 16% (N = 10) did not participate with their students in summer activities (Table 4.19).
<table>
<thead>
<tr>
<th>Events</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Update</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>FFA Camp</td>
<td>37%</td>
<td>63%</td>
</tr>
<tr>
<td>County Fair</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>Summer Activities</td>
<td>84%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Table 4.19: Attendance at technical update, FFA camp, county fair, and summer activities.

The average number of students enrolled per agricultural education program was 85 students ($N = 64, s = 52$). Fifty-eight percent ($N = 37$) of teachers taught in a single teacher program, 26% ($N = 17$) taught in a two-teacher program, 11% ($N = 7$) taught in a three teacher program, and 5% ($N = 3$) of teachers taught in a program with four or more teachers (Table 4.20). The average number of class preparations reported was 3.4 ($N = 61, s = 1.41$) and ranged from 0 to 7 (Table 4.21).

<table>
<thead>
<tr>
<th>No. of Teachers</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Teacher ($N = 37$)</td>
<td>58%</td>
</tr>
<tr>
<td>Two Teachers ($N = 17$)</td>
<td>26%</td>
</tr>
<tr>
<td>Three Teachers ($N = 7$)</td>
<td>11%</td>
</tr>
<tr>
<td>Four or more teachers ($N = 3$)</td>
<td>5%</td>
</tr>
</tbody>
</table>

Table 4.20: Frequencies on the number of agricultural education teachers per department.
<table>
<thead>
<tr>
<th>No. of Class Preparations</th>
<th>$f$</th>
</tr>
</thead>
<tbody>
<tr>
<td>None ($N = 1$)</td>
<td>2%</td>
</tr>
<tr>
<td>One ($N = 4$)</td>
<td>6%</td>
</tr>
<tr>
<td>Two ($N = 12$)</td>
<td>20%</td>
</tr>
<tr>
<td>Three ($N = 14$)</td>
<td>23%</td>
</tr>
<tr>
<td>Four ($N = 18$)</td>
<td>29%</td>
</tr>
<tr>
<td>Five ($N = 9$)</td>
<td>15%</td>
</tr>
<tr>
<td>Six ($N = 2$)</td>
<td>3%</td>
</tr>
<tr>
<td>Seven ($N = 1$)</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table 4.21: Frequencies on the number of class preparations.

Sixty-one percent ($N = 40$) of the teachers had a mentor and 39% ($N = 26$) did not have a mentor. Of those teachers who had a mentor ($N = 40$), 50% ($N = 20$) strongly agreed that their mentor was competent, 25% ($N = 10$) moderately agreed that their mentor was competent, 20% ($N = 8$) slightly agreed, 2.5% ($N = 1$) slightly disagreed, and 2.5% ($N = 1$) moderately disagreed that their mentor was competent. Further, of those teachers who had mentors ($N = 40$), 50% ($N = 20$) strongly agreed that their mentor was supportive, 35% ($N = 14$) moderately agreed that their mentor was supportive, 7.5% ($N = 3$) slightly agreed, and 7.5% slightly disagreed that their mentor was supportive (Table 4.22).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Strongly Disagree</th>
<th>Mod. Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Mod. Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>0%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>20%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>Support</td>
<td>0%</td>
<td>0%</td>
<td>7.5%</td>
<td>7.5%</td>
<td>35%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Table 4.22: Frequencies on the teachers’ perceptions of mentor competence and support.

Sixteen percent (N = 10) of teachers strongly agreed that their first year of teaching was excellent, 34% (N = 22) moderately agreed, and 23% (N = 15) slightly agreed to that statement. Nineteen percent (N = 12) of teachers slightly disagreed with the statement that their first year of teaching was excellent and 2% (N = 1) of teachers strongly disagreed with that statement. Forty-one percent (N = 23) of teachers strongly agreed that their student teaching experience was excellent, 39% (N = 22) moderately agreed, and 9% (N = 5) of teachers slightly agreed with that statement. Five percent (N = 3) of teachers slightly disagreed with the statement that their student teaching experience was excellent, 2% (N = 1) moderately disagreed, and 4% (N = 2) of teachers strongly disagreed with that statement (Table 4.23).
Eighteen percent (N = 12) of the teachers who responded to the questionnaire strongly agreed that their teacher education program was a high quality program. Thirty-three percent (N = 21) moderately agreed, 30% (N = 19) slightly agreed, 11% (N = 7) slightly disagreed, and 8% (N = 5) moderately disagreed with the statement that their teacher education program was a high quality program (Table 4.24). Fourteen percent (N = 9) strongly agreed, 34% (N = 22) moderately agreed, 24% (N = 15) slightly agreed, 14% (N = 9) slightly disagreed, 11% (N = 7) moderately disagreed, and 3% (N = 2) strongly disagreed that their teacher education program prepared them to teach (Table 4.24). Thirty-one percent (N = 20) of the teachers strongly agreed that that being a high school agriculture teacher has been their long-term career goal. Twenty-five percent (N = 16) moderately agreed, 18% (N = 12) slightly agreed, 18% (N = 12) slightly disagreed, and 8% (N = 5) moderately disagreed with this statement (Table 4.24). Fifty-nine percent (N = 38) strongly agreed, 16% (N = 12) moderately agreed, 15% (N = 9) slightly agreed, 7% (N = 4) slightly disagrees, and 3% (N = 2) strongly disagreed with that statement that they planned to teach for at least five years. Twenty-six percent (N = 17) of teachers
strongly agreed that teaching as a career matches their personal and family needs. Forty-four percent (N = 28) moderately agreed, 11% (N = 7) slightly agreed, 11% slightly disagreed, 6% (N = 4) moderately disagreed, and 2% (N = 1) strongly disagreed with that statement (Table 4.24). Three percent (N = 2) strongly agreed, moderately agreed, slightly agreed, and slightly disagreed to the statement that they do no plan to teach next year. Thirteen percent (N = 8) moderately disagreed and 75% (N = 49) strongly disagreed with that statement (Table 4.24). Twenty-three percent (N = 15) strongly agreed, 31% (N = 20) moderately agreed, 20% (N = 13) slightly agreed, 11% (N = 7) slightly disagreed, 9% (N = 6) moderately disagreed, and 6% (N = 4) strongly disagreed that adequate funding is available to effectively run their agricultural education program (Table 4.24). Forty percent (N = 26) of teachers strongly agreed and 39% (N = 25) moderately agreed that they feel confident about teaching in agricultural education. Eleven percent (N = 7) slightly agreed, 3% (N = 3) slightly disagreed, 5% (N = 3) moderately disagreed, and 2% (N = 1) strongly disagreed with the statement that they feel confident about teaching in agricultural education (Table 4.24).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Strongly Disagree</th>
<th>Mod. Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Mod. Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher education (TE) quality</td>
<td>0%</td>
<td>8%</td>
<td>11%</td>
<td>30%</td>
<td>33%</td>
<td>18%</td>
</tr>
<tr>
<td>TE prepared me to teach</td>
<td>3%</td>
<td>11%</td>
<td>14%</td>
<td>24%</td>
<td>34%</td>
<td>14%</td>
</tr>
<tr>
<td>Long-term career goal</td>
<td>0 %</td>
<td>8%</td>
<td>18%</td>
<td>18%</td>
<td>25%</td>
<td>31%</td>
</tr>
<tr>
<td>Plans to teach for 5 years</td>
<td>3%</td>
<td>0%</td>
<td>7%</td>
<td>15%</td>
<td>16%</td>
<td>59%</td>
</tr>
<tr>
<td>Matched personal &amp; family needs</td>
<td>2%</td>
<td>6%</td>
<td>11%</td>
<td>11%</td>
<td>44%</td>
<td>26%</td>
</tr>
<tr>
<td>Do not plan to teach next year</td>
<td>75%</td>
<td>13%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Perception of adequate funding</td>
<td>6%</td>
<td>9%</td>
<td>11%</td>
<td>20%</td>
<td>31%</td>
<td>23%</td>
</tr>
<tr>
<td>Confidence about teaching</td>
<td>2%</td>
<td>5%</td>
<td>3%</td>
<td>11%</td>
<td>39%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Table 4.24: Frequencies of teachers’ perceptions.
CHAPTER 5

CONCLUSIONS/IMPLICATIONS/RECOMMENDATIONS

The purpose of the study was to measure the teacher efficacy at the end of the school year of novice teachers in agricultural education in Ohio related to stage of development, gender, and teacher activities. The following research objectives guided the researcher through the study.

Objectives of the Study

The objectives of the study were to:

1. Describe the differences in teacher efficacy between stages of development of first-year teachers, second-year teachers, and third-year teachers in agricultural education in Ohio at the end of the school year.

2. Explain the variance in teacher efficacy at the end of the school year related to stage of development, gender, and teacher activities.

3. Describe the population of the study using selected teacher characteristics and perceptions.

Type of Research

This was a survey study with a relational component completed as part of a longitudinal study. The three groups studied were first-year novice teachers, second-year novice teachers, and third-year novice teachers. The two types of data collected were data...
to determine differences between stages of development in teacher efficacy and data on teacher characteristics. These were collected to describe the population and for use in determining which variables had an effect on teacher efficacy.

Population and Subject Selection

The target population was novice teachers in agricultural education in the first three years of teaching in Ohio public schools. The Ohio Department of Education Bureau of Career, Technical, and Adult Education’s Agricultural Education Service provided the frame for the accessible population. Teachers with previous teaching experience who had left the teaching profession and returned, but were still in their first three years of teaching, were asked to participate in the study. The most current frame was used, although some teachers may not have been included because new hires were not reported to the Ohio Department of Education.

Instrumentation

The data were collected with demographic collection questionnaires through Knobloch’s (2002) study (Appendix B) and with a questionnaire sent out in April of 2002 (Appendix A). The April questionnaire consisted of the 24-item Ohio State Teacher Efficacy Scale (OSTES). A panel of experts (Appendix C) established validity and post hoc reliability tests established an estimate of reliability at .94 so the instrument was both reliable and valid.

Data Collection Procedures

Data were collected using Dillman’s (2000) tailored design method. The tailored design method has five parts: (a) respondent-friendly questionnaire; (b) up to five contacts with the recipient; (c) inclusion of self-addressed stamped envelopes; (d)
personalized correspondence; and (e) a token incentive that is sent with the questionnaire (Dillman, 2000). The data were collected at one time.

Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences Personal Computer version (SPSS/PC+). Reverse items were recoded and subscales were aggregated into composite scores before analyzing the data. Participants whose responses were incomplete were automatically excluded by SPSS. Population means, population standard deviations, and effect sizes were rounded to the nearest 1/100th.

Descriptive statistics were used to analyze the data because the study was a census. Effect sizes were calculated using Cohen’s (1988) d.

A full model multiple linear regression analysis was used to explain the percent variance in teacher efficacy related to teacher characteristics and activities. Relationships were described using the Pearson Product-Moment or Spearman’s Rho coefficients. The alpha level was established a priori at 0.05. The assumptions of multiple regression were met.

Summary of Findings

The summary of findings is divided into three sections: (a) differences in teacher efficacy related to stage of development; (b) teacher efficacy related to stage of development, gender, and teacher activities; and (c) teacher characteristics and perceptions.
Differences in Teacher Efficacy Related to Stage of Development

The novice teachers measured between 100 and 216 for summed scores on the teacher efficacy scale at end of the school year. This equaled a range of 4.16 to 9 for mean scores. All differences between stages of development were small (.02 to .15) in effect size.

Teacher Efficacy Related to Stage of Development, Gender, and Teacher Activities

Forty-two variables were correlated to the summed teacher efficacy score for each teacher. The alpha level was established a priori at 0.05 for identifying characteristics to enter into the regression equation. Six characteristics were entered, including the number of students enrolled in the agricultural education program, the number of class preparations a teacher was responsible for, the level of agreement with the statement that the teacher had an excellent student teaching experience, level of agreement with the statement that they do not plan to teach next year, level of agreement with the statement that they plan to teach for at least five years, and the teachers’ perceived confidence about teaching in agricultural education. Two variables were found to have significant effects on the summed teacher efficacy score. For each increase in the level of agreement with the statement that the teacher had an excellent student teaching experience, the summed teaching efficacy score was raised by 4.81 points. For each additional class preparation the teacher taught, the teacher efficacy score was lowered by 4.16 points. The full model (adjusted for shrinkage) explained 34.0% of the variance in teacher efficacy.
Teacher Characteristics and Perceptions

First-year teachers represented 34%, second-year teachers represented 33%, and third-year teachers represented 33% of the teachers who completed the questionnaire. Fifty-six percent were male and 44% were female while the average age was 26.6 years of age. Two percent of teachers had no degree beyond a high school diploma, 3% had an associates degree, 84% had a bachelors degree and 11% had a masters degree. Eighty percent of the teachers had graduated from The Ohio State University, 9% had degrees from Wilmington College, and 11% had degrees from other institutions. Eighty-two percent had majored in agricultural education and 18% had majors other than agricultural education. Eighty percent had a minor in production agriculture and agriscience and 20% had other minors.

Sixty-seven percent of teachers had taught in only one school district, 17% had taught in two, 3% had taught in three, 2% had taught in more than three, and 11% marked the item not applicable. Fifty-five percent of the teachers grew up in a farming community, 22% in a rural community, 12% in a small town, 6% in a suburban community, and 5% in an urban community. Thirty percent of the teachers taught in a farming community, 21% in a rural community, 35% in a small town, 11% in a suburban community, and 3% in an urban community.

Three out of four teachers participated in a high school agricultural education program, the FFA, and SAE projects while they were in high school. Twenty-five percent of teachers did not experience high school agricultural education, the FFA, or SAE projects as a part of their high school career. Sixty percent of teachers were chapter
officers, 19% were state officers, and 3% were national officers in the FFA. Thirty-eight percent of teachers received chapter level recognition for their SAE projects, 22% received state recognition, and 22% received national recognition.

Sixty-five percent of teachers held a leadership position in a college organization and 35% did not. Nineteen percent of teachers were members of their local teacher’s association, and 76% were not, but 23% of teachers stated that they did hold some kind of leadership position in the teaching profession, while 74% said they did not.

Sixty-seven percent of the teachers said that they had attended the summer technical update in agriculture in 2001, while 33% said they had not. Thirty-seven percent of teachers attended FFA camp with their students in 2001, while 63% did not. Eighty-eight percent of teachers said that they interacted with their students at the county fair, but 12% said they did not interact with their students at the county fair. Eighty-four percent of teachers said they participated in summer activities with their students and 16% said they did not.

Nearly 60% of teachers taught in one teacher program, but 26% taught in a two teacher program, 11% taught in a three teacher program, and 5% taught in a program with four or more teachers. The average number of students enrolled per agricultural education program was 85 students. The average number of class preparations for teachers was 3.4 with a range of 0 preparations to 7. Six out of 10 teachers had a mentor and of those who had mentors, 95% agreed that their mentor was competent and 92.5% agreed that their mentor was supportive.

Seventy-three percent of teachers agreed that their first year of teaching was excellent and 89% agreed that their student teaching experience was excellent. Eight out
of every 10 teachers agreed that their teacher education program was of high quality and 72% agreed that their teacher education program prepared them well to teach. Three out of every four teachers agreed that teaching was their long-term career goal and 90% agreed that they plan to teach for at least five years, while 8 out of every 10 teachers agreed that teaching matched their personal and family needs. Nine percent of teachers agreed that they do not plan to teach next year. Seventy-four percent of teachers agreed that they had adequate funding for their programs. Ninety percent of teachers agreed that they felt confident about teaching in agricultural education.

Conclusions, Discussions, and Implications

Conclusion 1

First-year teachers, second-year teachers, and third-year teachers are similarly efficacious at the end of the school year.

Discussion and Implications

This evidence supports Knobloch’s (2002) findings that stage of development did not have a significant impact on teacher efficacy. Experience is not necessarily the variable that affects teacher efficacy, but there are a variety of factors that affect efficacy.

Conclusion 2

The greatest influences on teacher efficacy were the number of class preparations the teacher was responsible for and the perceived excellence of the student teaching experience.

Discussion and Implications

The only two factors found to have significant impact on teacher efficacy were the number of class preparations the teacher was responsible for and the perceived
excellence of the student teaching experience. These findings do no support earlier research on efficacy changes due to gender and age differences in earlier research (Coladarci & Breton, 1991; Evans & Tribble, 1986; Greenwood, Olejnik, & Parkay, 1990; Riggs, 1991), but these variables should be researched in greater detail. While the number of class preparations taught is easily quantified, excellence in student teaching is not. The definition of an excellent student teaching experience should be studied in more depth, as should the possible correlation of student-teaching experience grades with teacher efficacy.

Student teaching experiences and teacher efficacy should be studied across fields of study (agricultural education, general education, and special education). The design of these experiences, their length, how cooperating and supervising teachers are chosen, and the responsibilities of student teachers, should all be investigated.

Also, those 40 variables not found to have significant relationships should be researched, because each variable was only one item on the questionnaire and many are hard to quantify. For instance, 61% of teachers stated that they had a mentor, but no item was asked as to how much they interacted with their mentor.

This study should be replicated and the longitudinal study should continue with this novice teacher group in order to track their development. Also, the study should be expanded to other novice teacher groups and should be replicated outside of agricultural education.

Another study of this nature would be to compare the novice teacher efficacy score from this novice group with those teachers under the licensure program who are
required to go through the PRAXIS licensure program and those students at The Ohio State University who had begun a new curriculum to see if these changes relate to their efficacy scores.

Conclusion 3

Novice teachers in agricultural education in Ohio were efficacious at the end of the school year.

Discussion and Implications

This conclusion supported Knobloch’s (2002) conclusion, and Rodriguez’s (1997) findings that novice teachers in agricultural education in Ohio were mildly-to-moderately efficacious. This finding did not support Mundt’s (1991) finding that beginning agriculture teachers lacked confidence.

Summary

Overall, this study found that novice teachers in agricultural education in Ohio were generally efficacious at the end of the school year and that there was no significant difference between efficacy levels of first-, second-, or third-year novice teachers. The number of class preparations a teacher is responsible for significantly lowers the teacher efficacy score, and the perceived excellence of the student teaching experience raises the efficacy score. In total, 34% of the variability of the teacher efficacy score was explained (adjusted for shrinkage).

More studies should be conducted so that the generalizability of this data can be improved. Also, the variables that relate to teacher efficacy should be more thoroughly investigated, especially the student teaching experience, as it is hard to quantify the quality of the experience.
LIST OF REFERENCES


APPENDIX A

QUESTIONNAIRE
Beginning Agriculture Teacher

Φ

Interest and Confidence Study

Life is amazing: and the teacher had better prepare himself [sic] to be a medium for that amazement.
- Edward Blishen

Please return by Friday, May 31, 2002

The Ohio State University
Department of Human and Community Resource Development
Elaine McConnell
Stephanie Jolliff
As you may recall, the purpose of this study is to learn how beginning teachers respond to teaching during the first years of teaching. Therefore, this is a follow-up questionnaire that you should complete by May 31, 2002 regarding your teaching experience during the past year. If for some reason the deadline passed, please complete the questionnaire. It is important that we hear from every teacher in the study.

This questionnaire collects information regarding actual interests and confidence of teachers, and the difficulties that teachers face in their school activities. Please read each statement and immediately respond with your initial reaction. **Do not read into the statements.** We are only interested in your frank opinions. There are no correct or incorrect answers. Your responses will be kept strictly confidential and will not be identified by name. The questionnaire should take you less than 20 minutes. There are 4 parts to this questionnaire. Please complete Parts I, II, III and IV using the following scales:

### Part I
**Instructions:** For each of the following topics, circle the response that best indicates your perceived level of **COMPETENCE** to Agricultural Education.

<table>
<thead>
<tr>
<th>Level of Importance</th>
<th>Level of Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
<td>Very Competent</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>Competent</td>
</tr>
<tr>
<td>Little Important</td>
<td>Somewhat Competent</td>
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<tr>
<td>Not Important</td>
<td>Little Competent</td>
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<td>1</td>
</tr>
</tbody>
</table>

0. Agricultural Engineering

### Parts II and III
**Instructions:** For each of the following topics, circle the response that best indicates your perceived level of **IMPORTANCE** to Agricultural Education and your perceived level of **COMPETENCE** to Agricultural Education.

<table>
<thead>
<tr>
<th>Level of Importance</th>
<th>Level of Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
<td>Very Competent</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>Competent</td>
</tr>
<tr>
<td>Little Important</td>
<td>Somewhat Competent</td>
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<tr>
<td>Not Important</td>
<td>Little Competent</td>
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<td>5</td>
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<td>3</td>
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<td>2</td>
<td>2</td>
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<tr>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

0. Evaluating student projects

### Part IV
**Instructions:** Please indicate your opinion about each of the statements below by circling the appropriate number.

<table>
<thead>
<tr>
<th>Level of Influence</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing</td>
<td>Very Little</td>
<td>Some Influence</td>
<td>Quite A Bit</td>
<td>A Great Deal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0. How much can you do to get students to act mature?

Please feel free to email Elaine McConnell at mcconnell.84@osu.edu or call 614-688-4624 if you have any questions. We thank you for your time and consideration!

Page 1
### Instruction: Part I

**Instructions**: For each of the following topics, circle the response that best indicates your perceived level of COMPETENCE to Agricultural Education.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Very Competent</th>
<th>Competent</th>
<th>Somewhat Competent</th>
<th>Little Competent</th>
<th>Not Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General Agricultural Safety</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Research Technology</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
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<td>3. Environmental Science</td>
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<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Business Technology</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. Plant Science</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Animal Science</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Mechanical Science</td>
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<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>8. Personal Development</td>
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<td>4</td>
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<tr>
<td>9. Crop and Forage Production</td>
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<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
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<td>10. Agricultural Mechanics</td>
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<td>11. Marketing</td>
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<td>12. Business Management</td>
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<td>13. Career Development</td>
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<td>14. Beef and Sheep Production</td>
<td>5</td>
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<td>15. Dairy Production</td>
<td>5</td>
<td>4</td>
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<td>16. Poultry Production</td>
<td>5</td>
<td>4</td>
<td>3</td>
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</tr>
<tr>
<td>17. Swine Production</td>
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<td>4</td>
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### FFA Knowledge of...: Part II

**Instructions:** For each of the following topics, circle the response that best indicates your perceived level of IMPORTANCE to Agricultural Education and your perceived level of COMPETENCE to Agricultural Education.

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<thead>
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<th>Level of Importance</th>
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<th>Topic</th>
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<td>2. Philosophy of FFA</td>
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<td>5 4 3 2 1</td>
</tr>
<tr>
<td>3. Developing Program of Activities</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>4. Planning banquets</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>5. Implementing Career Development Events and results</td>
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<td>5 4 3 2 1</td>
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<tr>
<td>6. Preparing for FFA Degree Applications</td>
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<td>5 4 3 2 1</td>
</tr>
<tr>
<td>7. Preparing for Proficiency Awards</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>8. Teaching Parliamentary Procedure</td>
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<td>5 4 3 2 1</td>
</tr>
<tr>
<td>9. Financing Chapter Activities</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>10. Alumni Association</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>11. Encouraging non-traditional enrollment</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>12. Operating FFA based on program of activities (POA)</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>13. Holding regularly scheduled FFA meetings</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
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<tr>
<td>14. Conducting fund raisers</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>15. Electing and working with officers</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>16. Assessing FFA Activities</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>17. Preparing for CDE’s</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
</tbody>
</table>

Please continue on the next page.
### SAE Knowledge of...: Part III

#### Level of Importance

<table>
<thead>
<tr>
<th>Importance</th>
<th>Very Important</th>
<th>Important</th>
<th>Somewhat Important</th>
<th>Little Importance</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

#### Level of Competence

<table>
<thead>
<tr>
<th>Competence</th>
<th>Very Competent</th>
<th>Somewhat Competent</th>
<th>Little Competent</th>
<th>Not Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Instructions:
For each of the following topics, circle the response that best indicates your perceived level of IMPORTANCE to Agricultural Education and your perceived level of COMPETENCE to Agricultural Education.

1. Creating SAE with student, parent and teacher.
2. Coordinating job placement in community.
5. Evaluating SAE programs.
6. Working with non-traditional SAE’s.
7. Completing SAE Assessment forms with every student.
8. Utilizing SAE record books.
9. Completing on-site supervision of all SAE’s.
10. Providing instruction through SAE programs.
11. Coordinating SAE placement.
12. Evaluating Ag Business employers.
13. Linking SAE programs to career goals.

Page 4  
Please continue on the next page.
**Attitudes and Confidence: Part IV**

This section is designed to help gain a better understanding of the kinds of things that may create difficulties for teachers in their school activities.

**Instructions:** Please indicate your opinion about each of the statements below by circling the appropriate number.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Scale 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can you do to get through to the most difficult students?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How much can you do to help your students think critically?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How much can you do to control disruptive behavior in the classroom?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How much can you do to motivate students who show low interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How much can you make your expectations clear about student behavior?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How much can you do to get students to believe they can do well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How well can you respond to difficult questions from your students?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. How well can you establish routines to keep activities running smoothly?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. How much can you do to help your students value learning?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. How much can you gauge student comprehension of what you have</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. To what extent can you craft good questions for your students?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. How much can you foster student creativity?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. How much can you do to get students to follow classroom rules?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please continue on the next page.
**PART IV, continued**

14. How much can you do to improve the understanding of a student who is failing?  
   ![Rating Scale]

15. How much can you do to calm a student who is disruptive or noisy?  
   ![Rating Scale]

16. How well can you establish a classroom management system with each group of students?  
   ![Rating Scale]

17. How much can you do to adjust your lessons to the proper level for individual students?  
   ![Rating Scale]

18. How much can you use a variety of assessment strategies?  
   ![Rating Scale]

19. How much can you keep a few problem students from ruining an entire lesson?  
   ![Rating Scale]

20. To what extent can you provide an alternative explanation or example when students are confused?  
   ![Rating Scale]

21. How well can you respond to defiant students?  
   ![Rating Scale]

22. How much can you assist families in helping their children do well in school?  
   ![Rating Scale]

23. How well can you implement alternative strategies in your classroom?  
   ![Rating Scale]

24. How well can you provide appropriate challenges for very capable students?  
   ![Rating Scale]

* Tschannen-Moran & Woolfolk Hoy, 2001
1. Within the last school year, what has made you feel more confident toward teaching in agricultural education?

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________

2. Within the last school year, what has made you feel less confident toward teaching in agricultural education?

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________

__________________________________________________________________________________________________________________________
3. What other comments would you like to share related to this topic?


Thank you!

Please return by Friday, May 31, 2002
To
Elaine McConnell
203A Agricultural Administration
2120 Fyffe Road
Columbus, OH 43210-1067
APPENDIX B

DEMOGRAPHIC COLLECTION QUESTIONNAIRES

Pretest Questionnaire

Posttest Questionnaire
Beginning Agriculture Teacher

Pre-Test Appraisal Inventory

Please return by Wednesday, September 26, 2001

The Ohio State University
Department of Human and Community Resource Development
The Beginning Agriculture Teachers Study

The purpose of this study is to learn how beginning teachers respond to teaching during the first 10 weeks of the school year. There are two questionnaires in this study. The first questionnaire should be completed at the beginning of the school year, preferably before you start the school year or by September 26, 2001. The follow-up questionnaire will be sent to you in early November regarding your teaching experience during the first 10 weeks of the school year.

The purpose of the 2 questionnaires is to gather information regarding actual attitudes of teachers and the difficulties that teachers face in their school activities. Please read each statement and immediately respond with your initial reaction. Do not read into the statements. We are only interested in your frank opinions. There are no correct or incorrect answers. Your answers will be kept strictly confidential and will not be identified by name.

This questionnaire should take you about 15 minutes. There are 3 parts to this questionnaire. Please complete Section I and II using the following scales:

**SECTION I**

*Instructions:* Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>0. The amount a student can learn is primarily related to the number of years they were in a youth leadership club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION II**

*Instructions:* Please indicate your opinion about each of the statements below by circling the appropriate number.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Nothing</th>
<th>Very Little</th>
<th>Some Influence</th>
<th>Quite A Bit</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>0. How much can you do to get students to participate in FFA meetings?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section III asks you to share your thoughts about teaching and some information about yourself. Please feel free to email Neil Knobloch at knobloch4@osu.edu or call 614-688-8662 if you have any questions. We thank you for your time and consideration!

Page 1  
Please continue on the next page
Appraisal Inventory: Part I*

A number of statements about educational organizations, people, and teaching are presented below.

**Instructions:** Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The amount a student can learn is primarily related to family background.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>If students aren't disciplined at home, they aren't likely to accept any discipline.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>When I really try, I can get through to most difficult students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A teacher is very limited in what he/she can achieve because a student's home environment is a large influence on his or her achievement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>If parents would do more with their children, I could do more.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>If a student did not remember information I gave in a previous lesson, I would know how to increase his or her retention in the next lesson.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him or her quickly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>If I really try hard, I can get through to even the most difficult or unmotivated students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Gibson & Denbo, 1984; Hoy & Woolfolk, 1993

Page 2

Please continue on the next page
Appraisal Inventory: Part II

This section is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities.

Instructions: Please indicate your opinion about each of the statements below by circling the appropriate number.

1. How much can you do to get through to the most difficult students? ................................. 1 2 3 4 5 6 7 8 9
2. How much can you do to help your students think critically? .......... 1 2 3 4 5 6 7 8 9
3. How much can you do to control disruptive behavior in the classroom? ............................... 1 2 3 4 5 6 7 8 9
4. How much can you make your expectations clear about student behavior? ............................ 1 2 3 4 5 6 7 8 9
5. How much can you do to motivate students who show low interest in school work? ............... 1 2 3 4 5 6 7 8 9
6. How well can you respond to difficult questions from your students? .................................. 1 2 3 4 5 6 7 8 9
7. How well can you establish routines to keep activities running smoothly? .............................. 1 2 3 4 5 6 7 8 9
8. How much can you do to help your students value learning? ........................................... 1 2 3 4 5 6 7 8 9
9. How much can you gauge student comprehension of what you have taught? ........................ 1 2 3 4 5 6 7 8 9
10. To what extent can you craft good questions for your students? ................................... 1 2 3 4 5 6 7 8 9
11. How much can you foster student creativity? ................................................................. 1 2 3 4 5 6 7 8 9
12. How much can you do to get students to follow classroom rules? ................................... 1 2 3 4 5 6 7 8 9

Please continue on the next page
13. How much can you do to improve the understanding of a student who is failing?  
1 2 3 4 5 6 7 8 9

14. How much can you do to calm a student who is disruptive or noisy?  
1 2 3 4 5 6 7 8 9

15. How well can you establish a classroom management system with each group of students?  
1 2 3 4 5 6 7 8 9

16. How much can you do to adjust your lessons to the proper level for individual students?  
1 2 3 4 5 6 7 8 9

17. How much can you use a variety of assessment strategies?  
1 2 3 4 5 6 7 8 9

18. How much can you keep a few problem students from ruining an entire lesson?  
1 2 3 4 5 6 7 8 9

19. To what extent can you provide an alternative explanation or example when students are confused?  
1 2 3 4 5 6 7 8 9

20. How well can you respond to defiant students?  
1 2 3 4 5 6 7 8 9

21. How much can you assist families in helping their children do well in school?  
1 2 3 4 5 6 7 8 9

22. How well can you implement alternative strategies in your classroom?  
1 2 3 4 5 6 7 8 9

23. How well can you provide appropriate challenges for very capable students?  
1 2 3 4 5 6 7 8 9

* Tschannen-Moran & Woolfolk Hoy, 2001
Appraisal Inventory: Part III

This last section asks you to share your opinions about your confidence as a teacher and some background information about yourself. In the space provided, please feel free to express your opinions on the following questions.

1. What has made you feel more confident toward teaching in agricultural education?
2. What has made you feel less confident toward teaching in agricultural education?
Personal Background
Questions

3. What is your age? (optional)

4. What is your highest level of education? (4 one)

5. What college did you graduate from? (4 one)

6. What was your major in college? (4 one)

7. What was your minor(s) in college? (List)

8. What year of teaching are you in? (4 one)

9. How many total years of teaching experience do you have NOT including this year?

10. In how many different school districts have you been employed? (4 one)

11. Which type of community best describes the setting in which you grew up?
   A large city
   A community adjacent to a large city
   A town located in a rural area
   Outside of a town in the countryside, little to no farming
   Mostly part-time or full-time farming

Your Response

3. YEARS

4.

5.

6.

7.

8.

9. TOTAL YRS

10.

11. (4 one)

Page 7

Please continue on the next page

91
12. How many years were you a student in an agricultural education program while you were in high school? (4 one)...

13. How many years were you an FFA member? (4 one)...

14. At what level did you hold a leadership position in the FFA?... (4 one)

15. How many years did you have an SAE project? (4 one)...

16. What level of recognition did you receive on your SAE project?... (4 one)

17. Did you hold a leadership position in a college organization?... (4 one)

18. Are you a member of the local teacher's association? (4 one)...

19. Do you currently hold a leadership position related to the teaching profession? (4 one)...

20. Did you attend the Tech Update Conference this year? (4 one)....

20. Did you attend FFA Camp with your students this past summer? (4 one)...
22. Did you interact with your students at the county fair? *(4 one)*

I YES
I NO

23. Did you participate in any summer activities with your students? *(4 one)*

I YES
I NO

24. What other comments would you like to share related to this topic?

Thank you for completing this questionnaire. You are done. 😊
A+G
Teachers make a difference
Thank you!

Please return by Wednesday, September 26, 2001 to
Beginning Agriculture Teacher Study
Department of Human and Community Resource Development
The Ohio State University
209 Agricultural Administration, 2120 Fyffe Road
Columbus, OH 43210
Beginning Agriculture Teacher

Follow-Up

Appraisal Inventory

Please return by Friday, November 9, 2001

The Ohio State University
Department of Human and Community Resource Development
READ THIS FIRST ↓

As you may recall, the purpose of this study is to learn how beginning teachers respond to teaching during the first 10 weeks of the school year. Therefore, this is the follow-up questionnaire that you should complete by November 9, 2001 regarding your teaching experience during the first 10 weeks of the school year. If for some reason the deadline passed, please complete the questionnaire. It is important that we hear from every teacher in the study.

This questionnaire collects information regarding actual attitudes of teachers, the difficulties that teachers face in their school activities, and their interactions with the principal, other teachers, students and parents. Please read each statement and immediately respond with your initial reaction. **Do not read into the statements.** We are only interested in your frank opinions. There are no correct or incorrect answers. Your answers will be kept strictly confidential and will not be identified by name. The questionnaire should take you about 20 minutes. There are 4 parts to this questionnaire. Please complete Section I, II and III using the following scales:

### SECTION I
**Instructions:** Please indicate the extent to which each statement characterizes your school by circling the appropriate response.

<table>
<thead>
<tr>
<th>Statement</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal dresses appropriately for the teachers in this school...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION II
**Instructions:** Please indicate your opinion about each of the statements below by circling the appropriate number.

<table>
<thead>
<tr>
<th>Statement</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much can you do to get students to act mature?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION III
**Instructions:** Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount a student can learn is primarily related to effort...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section III asks you to share your thoughts about teaching and some information about yourself. Please feel free to email Neil Knobloch at knobloch.4@osu.edu or call 614-688-8662 if you have any questions. We thank you for your time and consideration.

Page 1

Please continue on the next page
Appraisal Inventory: Part 1*

The following statements are about students, teachers, and the principal in your school.

**Instructions:** Please indicate the extent to which each statement characterizes your school by circling the appropriate response:

<table>
<thead>
<tr>
<th>Statements</th>
<th>Rarely Occurs</th>
<th>Sometimes Occurs</th>
<th>Often Occurs</th>
<th>Very Frequently Occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The principal sets an example by working hard himself/herself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. The principal compliments teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. The principal goes out of his/her way to help teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. The principal explains his/her reason for criticism to teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. The principal is available after school to help teachers when assistance is needed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. The principal uses constructive criticism.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. The principal looks out for the personal welfare of the faculty.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Students in this school can achieve the goals that have been set for them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. The school sets high standards for academic performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Students respect others who get good grades.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. Students seek extra work so they can get good grades.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Teachers in this school believe that their students have the ability to achieve academically.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Academic achievement is recognized and acknowledged by the school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Students try hard to improve on previous work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. The learning environment is orderly and serious.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

* Hov. Tarter, & Kottkamp, 1991
**Appraisal Inventory: Part II**

This section is designed to help gain a better understanding of the kinds of things that may create difficulties for teachers in their school activities.

**Instructions:** Please indicate your opinion about each of the statements below by circling the appropriate number.

<table>
<thead>
<tr>
<th>Statements</th>
<th>No Influence</th>
<th>Very Little</th>
<th>Some Influence</th>
<th>Quite A Bit</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can you do to get through to the most difficult students?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. How much can you do to help your students think critically?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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<tr>
<td>3. How much can you do to control disruptive behavior in the classroom?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
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<tr>
<td>4. How much can you do to motivate students who show low interest in school work?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
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<tr>
<td>5. How much can you make your expectations clear about student behavior?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How much can you do to get students to believe they can do well in school work?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How well can you respond to difficult questions from your students?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. How well can you establish routines to keep activities running smoothly?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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</tr>
<tr>
<td>9. How much can you do to help your students value learning?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>10. How much can you gauge student comprehension of what you have taught?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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<tr>
<td>11. To what extent can you craft good questions for your students?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>12. How much can you foster student creativity?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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</tr>
<tr>
<td>13. How much can you do to get students to follow classroom rules?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
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</tr>
</tbody>
</table>

Page 3

Please continue on the next page.
### PART II, continued

14. How much can you do to improve the understanding of a student who is failing?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

15. How much can you do to calm a student who is disruptive or noisy?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

16. How well can you establish a classroom management system with each group of students?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

17. How much can you do to adjust your lessons to the proper level for individual students?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

18. How much can you use a variety of assessment strategies?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

19. How much can you keep a few problem students from ruining an entire lesson?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

20. To what extent can you provide an alternative explanation or example when students are confused?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

21. How well can you respond to defiant students?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

22. How much can you assist families in helping their children do well in school?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

23. How well can you implement alternative strategies in your classroom?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

24. How well can you provide appropriate challenges for very capable students?  
   ![Rating Scale](1 2 3 4 5 6 7 8 9)

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* Tschannen-Moran & Woolfolk Hoy, 2001

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Page 4

Please continue on the next page...
Appraisal Inventory: Part III

A number of statements about school organizations, parents, students, and teaching are presented below.

Instructions: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

1. The amount a student can learn is primarily related to family background......................................................... 1 2 3 4 5 6

2. If students aren't disciplined at home, they aren't likely to accept any discipline.............................................. 1 2 3 4 5 6

3. When I really try, I can get through to most difficult students................................................................. 1 2 3 4 5 6

4. A teacher is very limited in what he/she can achieve because a student's home environment is a large influence on his or her achievement.......................................................... 1 2 3 4 5 6

5. If parents would do more with their children, I could do more................................................................. 1 2 3 4 5 6

6. If a student did not remember information I gave in a previous lesson, I would know how to increase his or her retention in the next lesson................................................................. 1 2 3 4 5 6

7. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him or her quickly................................................................. 1 2 3 4 5 6

8. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty................................................................. 1 2 3 4 5 6

9. If I really try hard, I can get through to even the most difficult or unmotivated students................................................................. 1 2 3 4 5 6

10. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment................................................................. 1 2 3 4 5 6

Page 5 Please continue on the next page
11. Teachers in this school trust their students

12. Teachers in this school trust the parents.

13. The students in this school have to be closely supervised

14. Students in this school care about each other

15. Students in this school are reliable

16. Parents in this school are reliable in their commitments

17. Students in this school can be counted on to do their work

18. Teachers can count on parental support

19. Teachers here believe students are competent learners

20. Teachers think most of the parents do a good job

21. Teachers in this school believe what students say

22. Students in this school cheat if they have the chance

23. Teachers can believe what parents tell them

24. Students here are secretive

25. The students in this school talk freely about their lives outside of school

26. Teachers in this school are able to get through to the most difficult students

27. Teachers here are confident they will be able to motivate their students

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
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<td>6</td>
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</tbody>
</table>

Page 6
PART III, continued

28. If a child doesn’t want to learn, teachers here give up

29. Teachers here don’t have the skills needed to produce meaningful learning

30. Teachers in this school believe that every child can learn

31. These students come to school ready to learn

32. Home life provides so many advantages that students here are bound to learn

33. Students here just aren’t motivated to learn

34. Teachers in this school do not have the skills to deal with student disciplinary problems

35. The opportunities in this community help ensure that these students will learn

36. Learning is more difficult at this school because students are worried about their safety

37. Drug and alcohol abuse in the community make learning difficult for students here

38. My teacher education program was a high quality program

39. My teacher education program prepared me to teach

44. Being a high school agriculture teacher has been my long-term career goal

45. I plan to teach for at least 5 years

46. My student teaching experience was an excellent experience
PART III, continued

47. Teaching as a career matches my personal and family needs

48. I do not plan to be teaching next year

49. Adequate funding is available to effectively run my agricultural education program

50. I feel confident about teaching in agricultural education

* Gibson & Dembo, 1984; Goddard, in press; Hoy & Woolfolk, 1993; Hoy & Tschannen-Moran, 1999

Appraisal Inventory: Part IV

This last section asks you to share some background information about yourself and your opinions about your confidence as a teacher. Now, please complete the next section of information about yourself.

Personal Background Questions

1. How many students are currently enrolled in your agricultural education program?

2. How many agriculture teachers are in the Ag. Ed. Department?

3. How many class preparations do you teach?

4. Which type of community best describes the setting you teach in?
   - A large city
   - A community adjacent to a large city
   - A town located in a rural area
   - Outside of a town in the countryside, little to no farming
   - Mostly part-time or full-time farming

Your Response

AG STUDENTS

AG TEACHERS

CLASS PREPS

URBAN

SUBURBAN

SMALL TOWN

RURAL

FARMING

Page 8

Please continue on the next page

104
5. Are you utilizing a teaching mentor? (4 one)  
   YES → Go to #6  
   NO → Go to #8

6. My mentor is a very competent teacher (4 one)  
   STRONGLY AGREE  
   MODERATELY AGREE  
   SLIGHTLY AGREE  
   SLIGHTLY DISAGREE  
   MODERATELY DISAGREE  
   STRONGLY DISAGREE

7. My mentor is very supportive (4 one)  
   STRONGLY AGREE  
   MODERATELY AGREE  
   SLIGHTLY AGREE  
   SLIGHTLY DISAGREE  
   MODERATELY DISAGREE  
   STRONGLY DISAGREE

8. My first year of teaching has been/was an excellent experience (4 one)  
   STRONGLY AGREE  
   MODERATELY AGREE  
   SLIGHTLY AGREE  
   SLIGHTLY DISAGREE  
   MODERATELY DISAGREE  
   STRONGLY DISAGREE  
   NOT APPLICABLE

9. My student teaching experience has been/was an excellent experience (4 one)  
   STRONGLY AGREE  
   MODERATELY AGREE  
   SLIGHTLY AGREE  
   SLIGHTLY DISAGREE  
   MODERATELY DISAGREE  
   STRONGLY DISAGREE  
   NOT APPLICABLE

10. Related to your student teaching experience in the previous question, “Why or why not?”

__________________________________________
__________________________________________
__________________________________________
__________________________________________
11. Within the last 10 weeks, what has made you feel more confident toward teaching in agricultural education?

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

12. Within the last 10 weeks, what has made you feel less confident toward teaching in agricultural education?

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
13. What other comments would you like to share related to this topic?


Please return by Friday, November 9, 2001

to
Beginning Agriculture Teachers Study
Department of Human and Community Resource Development
The Ohio State University
209 Agricultural Administration, 2120 Fyffe Road
Columbus, OH 43210

Thank you!
APPENDIX C

PANEL OF EXPERTS
PANEL OF EXPERTS

1. Dr. Jamie M. Cano, Agricultural Education, Teacher Education
2. Dr. James J. Connors, Agricultural Education, Teacher Education
3. Dr. Wayne K. Hoy, Educational Policy and Leadership, Educational Administration and Research
4. Dr. Larry E. Miller, Agricultural Education, Teacher Education
5. Dr. J. Robert Warmbrod, Agricultural Education, Teacher Education
6. Dr. M. Susie Whittington, Agricultural Education, Teacher Education
7. Dr. Anita Woolfolk Hoy, Educational Policy and Leadership, Teacher Efficacy and Teacher Education
APPENDIX D

PRENOTICE MESSAGE
Dear <First Name>,

As you look forward to the end of your year, could we ask for your candid thoughts? We will be mailing a survey in one week to help us identify needs of 1st-3rd year teacher. We hope you will share your insights.

Thank you,

<signature>
APPENDIX E

QUESTIONNAIRE COVER LETTER

Questionnaire Cover Letter
April 29, 2002

Dear «FirstName»:

Recently, you were notified about the Beginning Agriculture Teachers Study. We are writing to ask for your help in a study of 1st year teachers, 2nd year teachers, and 3rd year teachers in Ohio as a follow-up to Neil Knobloch's survey that you participated in last fall.

The results from this study will be used by teacher educators and state consultants in agricultural education to deliver programs that assist beginning teachers. By understanding the needs of beginning teachers, teacher educators and consultants can do a better job of providing programs for your use. Additionally, the information you provide will help improve teacher preparation in agricultural education in Ohio.

Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. A questionnaire identification number is printed on the back of the questionnaire so that we can check your name off the mailing list when the questionnaire is returned. This survey is voluntary. However, you can help us very much by taking just a few minutes to share your opinions and thoughts as a teacher. If for some reason you prefer not to respond, please let us know by returning the blank questionnaire in the enclosed stamped envelope.

We have enclosed a small token of appreciation as a way of saying thanks for your help. If you have any questions about this study, we would be happy to talk with you. You may email us at mcconnell.84@osu.edu or phone 614-299-8106.

Thank you very much for helping with this important study.

Sincerely,

Elaine McConnell
Graduate Student

Stephanie Jolliff
Agricultural Educator & Graduate Student

P.S. If by some chance you are not a 1st year teacher, 2nd year teacher, or 3rd year teacher in Agricultural Education, please indicate so on the questionnaire and return it blank. Thank you.
APPENDIX F

REMINDER POSTCARDS
Front: Life is amazing:
and the teacher
had better prepare
himself [sic] to be
a medium for that
amazement.
Edward Blishen

Back: Dear Krista:

Thank you for your
participation in our study of 1st-3rd
year agriculture teachers.
If you have not completed and
returned your survey, this is just a
reminder to do so.
If you have returned the survey,
thank you.
Remember, your thoughts
are important and we'd love to
hear from you.

Thanks again,
APPENDIX G

FOLLOW-UP PHONE CONTACT
FOLLOW-UP PHONE CONTACT TEXT

Hello, <teacher’s name>. This is Elaine McConnell from Ohio State. How are you doing today? I was calling to see if you received a beginning teacher questionnaire from me within the last few weeks.

(Wait for response.)

(If the response was “NO”. I would be glad to send you another.

(If the response was “YES”. Great. I would appreciate if you could complete it and return it to me.

Thanks again for your help. I hope you have a good day!
APPENDIX H
SECOND MAILING QUESTIONNAIRE COVER LETTER
May 23, 2002

«FirstName» «LastName»
«School»
«Address1»
«City», OH «PostalCode»

Dear «FirstName»:

Recently, you were notified about the **Beginning Agriculture Teachers Study**. You should have received a copy of the questionnaire, but in case you did not, here is another copy. We are writing to ask for your help in a study of 1st year teachers, 2nd year teachers, and 3rd year teachers in Ohio as a follow-up to Neil Knobloch’s survey that you participated in last fall.

The results from this study will be used by teacher educators and state consultants in agricultural education to deliver programs that assist beginning teachers. By understanding the needs of beginning teachers, teacher educators and consultants can do a better job of providing programs for your use. Additionally, the information you provide will help improve teacher preparation in agricultural education in Ohio.

Your answers are completely confidential and will be released only as summaries in which no individual’s answers can be identified. A questionnaire identification number is printed on the back of the questionnaire so that we can check your name off the mailing list when the questionnaire is returned. This survey is voluntary. However, you can help us very much by taking just a few minutes to share your opinions and thoughts as a teacher. If for some reason you prefer not to respond, please let us know by returning the blank questionnaire in the enclosed stamped envelope.

If you have any questions about this study, we would be happy to talk with you. You may email us at mcconnell.84@osu.edu or phone 614-299-8106.

Thank you very much for helping with this important study.

Sincerely,

Elaine McConnell  
Graduate Student

Stephanie Jolliff  
Agricultural Educator & Graduate Student

P.S. If by some chance you are not a 1st year teacher, 2nd year teacher, or 3rd year teacher in Agricultural Education, please indicate so on the questionnaire and return it blank. Thank you.