

# **Escalation Model For Instructional Supervisors In Agricultural Education**

Carrie Fritz  
Greg Miller  
Iowa State University

## **Abstract**

The principal purpose of this study was to identify supervision models that are potentially useful to supervisors of agricultural instruction. In this article, the models that were selected served as the basis for creating the Escalation Model for instructional supervisors in agricultural education. The Escalation Model is divided into three levels that encompass different models of supervision. The models of supervision are placed on a continuum of structure, reward, and risk. As the supervisor matures in the supervisory process, it is proposed that the model of supervision used should change. With the change in supervisory models, the supervisor will progress in an upward direction on the continuum and facilitate more teacher-directed models of supervision. With teacher-directed models of supervision, the teacher and supervisor could experience greater reward from the supervisory process.

## **Introduction**

“Instructional supervision is the function in educational systems that draws together the discrete elements of instructional effectiveness into a whole educational action” (Glickman, Gordon, & Ross-Gordon, 1995, p. 15). Supervision, teaching, and learning are major components of this educational system (Montgomery, 1999). Without these components the educational system may not be effective.

Each individual student who applies knowledge that is constructive, cumulative, self-organized, goal oriented, situated, and individually different (Montgomery, 1999) achieves effective learning. Effective learning should be the teacher’s primary focus in education. If students do not learn, then educators have not successfully fulfilled their responsibility to the students. Therefore, students may not be adequately achieving educational goals due teaching techniques. Glickman, Gordon, and Ross-Gordon (2001) suggest that the blame for lack of student learning will be placed on the teachers and their teaching techniques.

“Effective teaching is occurring where the majority, preferably all the pupils, learn most of what the teacher intended. The pupils want to learn and do not have to be made to” (Montgomery, 1999, p. 126). This is a very difficult task to accomplish, and for some teachers it may take several years, if it happens at all. Montgomery’s (1999) research has shown that teachers’ lack grounding in relevant professional teaching theory and become susceptible to fashions and fads in teaching. Therefore, the teachers are unable to develop an effective system for teaching. Cogan (1973) concluded “the profound underestimation of the difficulties teachers face in learning how to teach and in improving their teaching on the job is at the root of the major problems in the preservice and inservice education of teachers” (p. 15).

Hersey & Blanchard (1972) affirmed that individual performance within an organization is often substantiated by effective supervisory leadership practices. Since education systems are

referred to as organizations, individual teachers may be more satisfied with their jobs if supervisors are providing effective leadership and support to teachers. If so, that satisfaction from teachers will stand out. Moreover, students may become inspired to learn more.

Supervision could be very important to the teachers' overall satisfaction. Glickman, Gordon, and Ross-Gordon (2001) describe effective supervision as the glue that holds individual teachers' needs and school goals together. Glickman, Gordon, and Ross-Gordon (2001) go on to say "glue, if functioning properly, cannot be seen" (p. 9). Likewise, when supervision is functioning properly, it also goes unnoticed. But when the glue quits sticking, as in the case of inadequate supervision, the object (the school system) will collapse.

Supervision is a chance to promote teacher efficiency, abstract thought, and a reflection on the teacher's own instruction (Glickman, Gordon, & Ross-Gordon, 1995). If the supervisor lacks adequate knowledge of supervision and does not know how to meet the needs of the teacher, then there may be an unproductive working relationship established (Acheson & Gall, 1980). The teacher could spend time being upset with the supervisor and might not devote sufficient effort toward teaching students. More importantly, the student's desire, ability, and level of learning may be affected (Beach and Reinhartz, 2000). When the supervisor cannot meet the needs of the teacher, the entire teaching experience may not be as effective as it could have been (Sergiovanni & Starratt, 1988).

The need to study supervision has not yet been fulfilled, as indicated by a scarcity of agricultural education scholarship related to supervision. Out of 774 articles published in the Journal of Agricultural Education between 1976 and 2000, only three directly focused on the supervision of teaching and one on the satisfaction of a supervisory process. Martin and Howell, in 1983, wrote about supervisory techniques used by principals and the related implications to the success of beginning teachers. Barrick, in 1985, focused his article on the current and expected roles of agriculture supervisors. In 1986, Martin and Yoder studied one supervision technique, clinical supervision, and how the technique should be practiced. The final article, written by Borne and Moss in 1990, focused on the satisfaction of student teachers, cooperating teachers, and university supervisors with agricultural education student teaching and the supervisory process. One of the undertakings of teacher educators in agriculture, as suggested by Hedges (1989), is coaching teachers to enhance their performance in the classroom. If this is so, more scholarly work in the area of supervision is needed.

### **Purpose and Objectives**

The principal purpose of this article was to identify supervision models that are potentially useful to supervisors of agricultural instruction. The specific objectives are:

1. Identify and explain models of instructional supervision that may be useful for supervision of agricultural instruction.
2. Present a model for supervisors of agricultural instruction to use in making decisions relative to the application of selected supervision models.

## Methods

A library search was performed to obtain information on a variety of models and techniques of supervision. Educational Resources Information Center (ERIC) and Psychological Abstracts (PsychLit) were the databases used to identify articles focusing on instructional supervision. Articles were gathered from the following sources: Association for Supervision and Curriculum Development Yearbook, Journal of Agricultural Education, Educational Researcher, Educational Leadership, Journal of Curriculum and Supervision, Journal of Teacher Education, The Journal of Higher Education, Journal of Staff Development, Viewpoints, and Principal. Additionally, the catalog of a Midwestern land grant university library was searched for all holdings related to instructional supervision. This search was used to locate books and other sources of information not indexed in ERIC and PsychLit.

The analysis of all this information progressed in two phases. The initial phase involved selecting models and techniques of supervision and then focusing on how they could be used by university-based teacher supervisors. Regarding selection criteria, models chosen were those that 1) fit along a continuum of potential growth for the supervisor, 2) provided specific explanations of how the models could be used, 3) had a record of successful application, and 4) reflected different styles of supervision to use when supervising agricultural instruction. Agricultural education is different from several other subject areas. Many subject areas have classroom and laboratory structures to supervise but most of the time not a third component. Agricultural education teachers typically include individualized classroom instruction, SAE participation, and FFA activities into their curriculum. Therefore, agricultural education is unique and supervisory models that could aide in the agricultural education supervision process were used.

The second phase of the analysis focused on which models and techniques could be used most effectively in agricultural education. According to Newcomb, McCracken, and Warmbrod (1993), the objectives of instruction in agriculture are to 1) develop vocational and practical arts interests, knowledge, and skills; 2) provide exploration of and orientation to occupations requiring knowledge and skills in agriculture; 3) develop knowledge and skill for occupational competence; and 4) prepare for more advanced study of agriculture. Furthermore, the extent of teaching skills and knowledge used by agricultural education teachers requires the supervisor to be flexible enough to accommodate such a variety. Supervision models that were selected can be used in an individualized laboratory, classroom, or instructional setting.

## Findings

*Objective 1. Identify and explain models of instructional supervision that may be useful for supervision of agricultural instruction.*

Although several models and techniques of instructional supervision are mentioned in the literature, this article is based on those that accommodate a professional maturation process for the supervisor. Hersey and Blanchard's (1972) leadership model and Glickman, Gordon, and Ross-Gordon's (2001) research was influential in the decision to use the developmental approach. Glickman, Gordon, and Ross-Gordon (2001) emphasized that teachers are not all at

the same level of professional maturity. Likewise, supervisors, as adult learners, also possess varying levels of professional maturity (Knowles, 1978).

The models were analyzed and placed into three growth levels for supervisors to use in deciding which model would be most appropriate for a given situation. These growth levels are apprentice, experienced, and professional. The supervision models can be placed along a continuum representing the level of structure required by the model, the potential reward/risk for using the model, and the level of maturity of the model required by the supervisor to use the model.

The level of structure refers to the specified steps that each type of supervisory model requires. The more specific procedures a model requires, the more structured it is. Potential reward is described as an "incentive" for both the supervisor and teacher. Supervisors can be less directive with their supervisory practices and provide an opportunity for the teacher to gain more self-control that attains job satisfaction (Hersey & Blanchard, 1972). But there are potential risks involved for the supervisor when supervision is teacher driven and the structure of supervision diminishes. Highly achievement-motivated individuals tend to take more risks that in turn can produce greater results (Hersey & Blanchard, 1972). A supervisor that is more conservative tends to feel secure with structure and feels that there is little danger of any mistake being made. Therefore, if there is rewards to be gained in this model, there will be potential risks to achieving those rewards.

Supervisor maturity is also a feature in the model. The low, median, and high maturity concepts are linked to Hersey & Blanchard's (1972) leadership theory. They define maturity as "achievement-motivation, the willingness and ability to take responsibility, and task relevant education and experience of an individual or a group"(p.134). Low maturity is a supervisor who is new to supervision or a model of supervision and must receive structure in his or her supervisory work. Median maturity is a supervisor who has had some experience with supervision and some workshops or training courses, etc. but still needs some structure in the supervisory process. High maturity is a supervisor who has had a great deal of experience in supervision, advanced supervisory education, and can feel comfortable with teacher driven types of supervision.

### Apprentice Level

The apprentice level introduces a starting point for supervisors. Apprentice refers to the newcomer, rookie, or amateur stage of the supervisor (Kay et al., 1976). This person would be new to instructional supervision and would require more structure on how to conduct supervisory visits and the supervisory process. The clinical and collaborative supervision approaches are recommended for this level and were chosen due to their complete step-by-step processes.

#### Apprentice-Clinical Supervision

Clinical supervision, the first model of supervision recommended for the apprentice level, is a form of inquiry designed to encourage teachers to reflect on and analyze their own teaching and to develop and test hypotheses about what is effective and why (Cook, 1996). Goldhammer (1969) and Cogan (1973) identified five major steps in clinical supervision: planning conference,

classroom observation/data collection, analysis/strategy, supervision conference, and postconference analysis. There are several procedures to follow within the five major steps that can help direct the supervisor.

The planning conference is designed to inform the supervisor of the objectives for the lesson. The teacher should have prepared a detailed lesson plan for the supervisor to critique and on which to give suggestions (Acheson & Gall, 1980).

During the classroom observation/data collection step the supervisor observes the teacher teaching the lesson that was outlined in his/her lesson plan. The supervisor should use his/her observation instrument to collect data on the lesson being taught (Acheson & Gall, 1980). This procedure will provide written information to be given to the teacher in the postobservation conference.

The analysis and strategy stage is the core of clinical supervision because the supervisor conceptualizes what he/she observed in the classroom and converts the analysis into readable data for the teacher (Goldhammer, 1969; Cogan, 1973). The teacher then has a representation of how the supervisor perceived the lesson.

The supervision conference is designed for the supervisor to dialogue with the teacher on the lesson observed (Goldhammer, 1969; Cogan, 1973). This is a time for the teacher to give input on the lesson. In addition, the supervisor and teacher work together to establish goals to be met at the next observation date.

The postconference analysis is primarily for the supervisor. He or she must analyze if the best supervisory practices were used with the teacher. This analysis provides a reflection exercise to help the supervisor on improving the next supervisory conference (Goldhammer, 1969; Cogan, 1973).

### *Apprentice-Conceptual Model*

The second model recommended for the apprentice level is the conceptual model. This model emphasizes the need for supervisors to familiarize themselves with influences that may affect the teaching process. The conceptual model is supported by the organizational theory emphasizing that individuals are unified by a common set of ethics and work together within a system of structure to accomplish specific goals and objectives (Beach & Reinhartz, 1989). The key for the supervisor using the conceptual model is the system of structure.

The conceptual model is based on clinical and collaborative supervision. In addition to the supervisory steps of clinical supervision and the collaboration established by the supervisor and teacher, the supervisor considers other factors that may affect teaching. Edmeirer and Nicklaus's (1999) conceptual model outlines organizational factors (work load, classroom climate, support of colleagues, decision making, role conflict, and support from supervisor via supervision) and personal factors (life stage, teaching assignment, interpersonal, intrapersonal, conceptual level, experience in education, and knowledge of subject) that influence teacher commitment and trust in the teaching system as well as how these factors directly reflect on the

performance quality of the teacher. A supervisor should understand how factors that a teacher can and cannot control might affect their quality of teaching.

The supervisor and teacher set certain benchmarks based on personal and organizational factors that influence the teacher's performance. If possible changes in organizational and personal factors should be made, and the teacher's improvements toward the benchmarks will be evaluated in each supervisory visit. For example, if the teacher is preoccupied with the notion that other teachers do not like him or her, the teacher's teaching effectiveness may suffer. The supervisor should help the teacher with these feelings whether they are warranted or not, because in the mind of the teacher they are reality. This type of supervision builds on a relationship and is initially used to develop trust between the supervisor and the teacher.

After conducting structured supervisory visits, developing a better understanding of supervision techniques in experienced level, and assessing one's maturity level, the supervisor may be ready to move to the experienced level.

### Experienced Level

The experienced level introduces models that are appropriate for an intermediate level of supervisor maturity. This level is made possible by previous experience and starts a self-discovery process related to different supervision styles. In the apprentice level, the supervisor was primarily focused on the process of supervision, but in the experienced level the supervisor begins to broaden his/her knowledge base about different supervisory practices.

The experienced level allows the supervisor more freedom in the style of supervision. The supervisor begins to reflect on supervision practices and allows more teacher involvement. The supervisor develops a deeper understanding of supervision based on his/her experiences, advanced education, and reflection on his/her own supervisory practices. This level still requires some guidance from the models themselves, but the rigidity of the structure begins to diminish. Two models recommended for the experienced level are developmental and contextual supervision.

### Experienced-Developmental Supervision

Glickman, Gordon, and Ross-Gordon (2001) explain developmental supervision as "the match of initial supervisory approach with the teacher or group's developmental levels, expertise, and commitment" (p. 197). The supervisor in the developmental approach gives three types of assistance: directive, collaborative, and nondirective. Teachers who have low conceptual thinking and low commitment to their teaching will be matched with directive supervision. Teachers at earlier stages of development have problems making decisions and defining problems, and they have few ways of responding to problems. Directive supervision places the supervisor, as the expert and the one in charge of writing the goals for the teacher, saying the teacher will achieve these goals, and stating when the teacher should achieve the goals.

Teachers at moderate levels of abstract thinking, expertise, and commitment are best matched with the collaborative supervisory approach (Glickman, Gordon, & Ross-Gordon,

2001). In this approach, the supervisor and teacher establish goals to be achieved, how they will be achieved, and when the achievement should be noticed as a team.

The teachers who think abstractly and are highly committed to teaching are best matched with the nondirective approach (Glickman, Gordon, & Ross-Gordon, 2001). The nondirective approach allows the teacher to be in control of how and when the goals will be achieved. The supervisor is still involved, but takes a more passive role in the supervisory process. Glickman, Gordon, and Ross-Gordon (2001) identify the behaviors of the supervisor in this role as listening, reflecting, clarifying, encouraging, and problem solving.

### *Experienced-Contextual Supervision*

The second model of supervision recommended for the experienced level is contextual supervision. In this approach, supervisory styles are matched to the teacher's development or readiness level to perform a particular teaching task (Ralph, 1998). The readiness levels are a function of the teacher's confidence and competence. Competence is the extent of the teacher's knowledge, skill, and ability to perform a certain task. Confidence is the degree of self-assurance, willingness, motivation, interest, or enthusiasm to become engaged in the task (Ralph, 1998). The contextual model of supervision requires that the supervisor have the ability to adjust and provide different leadership styles to match the teacher's developmental level of teaching.

The contextual model provides four quadrants for the supervisor to determine the readiness level and confidence of the teacher. The first quadrant is labeled high confidence and low competence (Ralph, 1998). The teacher is energetic toward teaching but is not completely proficient with the material that he/she is teaching. The supervisor establishes low support and high task for the teacher. Ralph (1998) refers to support as the amount of encouragement/motivation given to the teacher. Task is referred to as the amount of guidance that is provided in subject matter areas.

The second quadrant of the contextual model is labeled low confidence and low competence (Ralph, 1998). The teacher is not energetic about teaching and not proficient in a particular subject area. The supervisor provides the teacher with high support and high task.

The third quadrant of the contextual model is labeled low confidence and high competence (Ralph, 1998). In this quadrant, the teacher is not confident in his/her teaching abilities but is knowledgeable about the subject he/she is teaching. The supervisor would provide high support and low task to the teacher.

The final quadrant of the contextual model is labeled high confidence and high competence (Ralph, 1998). The teacher is enthusiastic about teaching and is proficient in the subject area. The supervisor would then provide feedback to the teacher if they had any immediate concerns.

The experienced level is recommended for supervisors who have been supervising for at least 3 years, are receiving advanced education in supervision, and are feeling comfortable with their abilities as a supervisor. This level should be accompanied by more reflection by the supervisor on the results that are meaningful to the teacher. The experienced level, as stated, is a

growth process that the supervisor must go through to develop the supervisory skills necessary for the professional level.

### Professional Level

The professional level offers the supervisor a more reflective role with the teacher. The professional level assumes that, in addition to experience, the supervisor has acquired specialized knowledge of the model recommended for the professional level, thorough academic preparation in supervision, and obtained a high level of maturity. The professional level would best suit a teacher who is comfortable in the teaching process. It would also benefit a supervisor who is ready for a more flexible, supervising role.

### Professional-Differentiated Supervision

The supervisory model recommended for professional level, differentiated supervision, allows the teacher to choose one of four supervisory options. Differentiated supervision is particularly teacher driven and allows the supervisor to become more of a mentor to the teacher. Additionally, the supervisor can focus his/her efforts where they are needed most (Glatthorn, 1997).

Glatthorn (1997) suggests four options for differentiated supervision: intensive development (a special approach to clinical supervision), cooperative professional development, self-directed, and administrative monitoring. The teacher chooses one of the supervisory options, and then the supervisor and teacher focus on that area.

Glatthorn (1997) suggests that intensive development, the first option of the differentiated supervisory model, is a process requiring many observations conducted by the supervisor that focuses on learning outcomes instead of teaching methods. Intensive development should be used with a small number of teachers who are experiencing difficulty.

Intensive development, designed by Glatthorn (1997), includes eight components that involve five or more cycles and multiple observations. The first component is the taking stock conference. This conference is held anytime the supervisor and teacher want to discuss their professional relationship or to reflect on what has been accomplished.

The second (preobservation), third (diagnostic observation), fourth (analysis of diagnostic observation), and fifth (diagnostic debriefing) components of the intensive development option are equivalent to the planning conference, classroom observation, analysis/strategy, and supervision conference of the clinical supervision model.

The sixth component, coaching session, of the intensive development option provides an opportunity for the supervisor and teacher to select one skill from the diagnostic process to be focused on.

The seventh component, focused observation, focuses on one skill, using a form intended to assemble information about the teacher's use of that skill.

The focused debriefing conference, the eighth component, allows the supervisor and teacher to review and analyze the results of the focused observation.

The second option, cooperative professional development, is a mutually respectful process in which a small group of teachers agree to work together to develop their own professional growth (Glatthorn, 1997). The teacher would be part of a two-or-three teacher team who would go through the mentoring process together. The teachers would observe each other's class and give feedback on each other's teaching. This type of supervision is less time consuming for the supervisor because the teachers are conducting the supervisory process with the supervisor serving as a mediator. Cooperative professional development can be used with more experienced teachers and supervisors who are seeking collegiality (Showers & Joyce, 1996). This could provide a beneficial mentoring experience for teachers.

The third suggested option of the differentiated supervisory model is self-directed. Beach and Reinhartz's (2000) research states that self-directed supervision enables the individual teacher to work independently on professional growth and allows the supervisor to have a more relaxed supervisory role. In this case, the teacher would develop and carry out individualized plans for professional growth with the supervisor serving as a resource. This technique specifically is for the teacher who prefers to work alone, yet seeks the aid of the supervisor as a mentor (Glatthorn, 1997). Glatthorn (1997) and Beach and Reinhartz (2000) state the teacher would self-evaluate his/her teaching using videotape, inventories, reflective journals, or portfolios to critique the teaching procedure. The supervisor does not need to evaluate the lesson, but through individual conferences the supervisor could provide feedback on improving the instruction, if the teacher so desires.

The final option available to teachers in the differentiated supervisory model is administrative monitoring. Glatthorn (1997) defines administrative monitoring as a process by which the supervisor monitors the teacher's classroom with brief, unannounced visits. This option is used to monitor the activity in the classroom and enables the supervisor to be aware of any problems the teacher is having.

*Objective 2. Develop a model for supervisors of agricultural instruction to use in making decisions relative to the application of selected supervision models.*

Based on the review and analysis of literature, a model for supervisors was conceptualized to aid in their growth process (see Figure 1). The supervision models can be placed along a continuum representing the level of structure required by the model, the potential reward/risk for using the model, and the level of maturity of the model required by the supervisor to use the model.

The Escalation Model is a unique representation of choices available to supervisors of agricultural instruction. The Escalation Model, represented by the reward/risk spectrum, outlines the three levels. Once again, reward refers to an "incentive" and risk is referred to as a "chance" taken by supervisors for more self-directed forms of supervision. The left side of the spectrum begins with the apprentice level. The apprentice supervisor is more administrative, directive, and structured in the supervision process. The supervisor at this level may typically focus on completion and success of the supervision process. The models in this

level are also used to familiarize the supervisor with basic supervisory practices. The apprentice level may not allow the teacher as much freedom as the experienced and professional levels, but the apprentice level allows the supervisor to develop self-confidence in his/her supervisory role. The apprentice level should primarily be used for the supervisor who is new to supervision, needs structure on conducting a supervisory visit, and needs assistance on supervisory techniques.

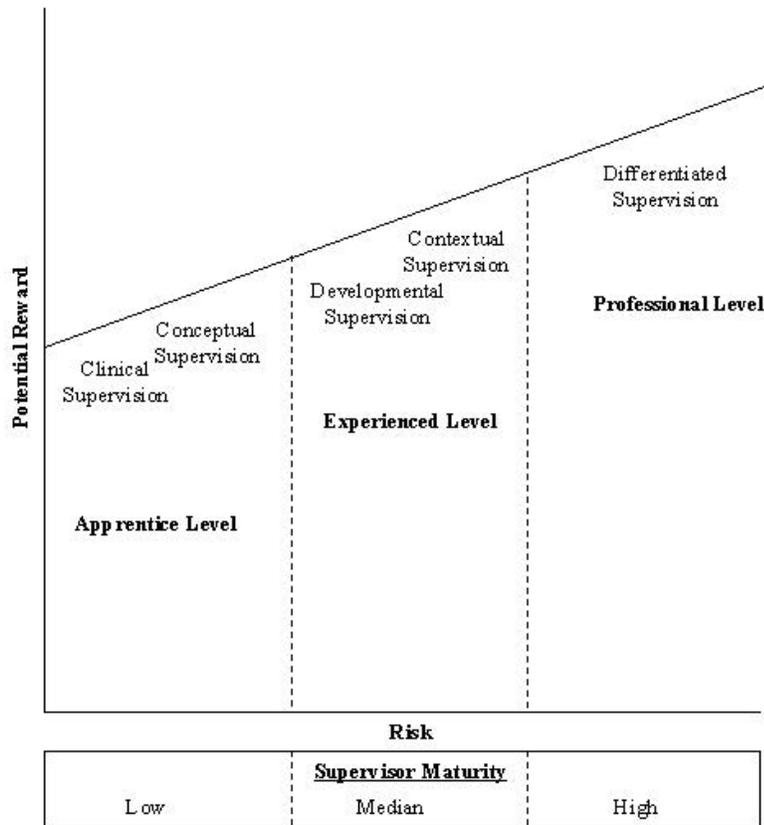


Figure 1: Escalation Model for Instructional Supervisors

As a supervisor continues to move to the right on the spectrum, from the apprentice to the experienced level, he/she should start to mature, gain more confidence, and develop more knowledge of supervision. The supervisor is growing professionally in the supervision process with teachers. With a combination of knowledge and supervisory skills gained in the apprentice level, the experienced supervisor could show a substantial amount of maturity and reflection. However, the supervisor should be reflecting and growing throughout each supervisory model that is used. With reflection being an ongoing process, the supervisor should start to witness more rewards or satisfaction with teachers and their progress with supervision. These two models are for supervisors who have experience conducting supervisory visits but still need some structure for supervising teachers. The models also provide implications for some advanced training on supervision.

The final level of the spectrum, the professional level, should be the most rewarding to both the supervisor and teacher. The professional level is considered the most powerful level in the model. The supervisor at this level must be at high maturity levels with extensive experience and knowledge about supervision. Since the professional level includes a combination of models from the apprentice and experienced level to enrich the supervision process, a supervisor must be confident that he/she can guide the teacher accordingly. If reflection is ongoing, the professional level should benefit both teacher and supervisor. It encourages the supervision process to be teacher driven.

A supervisor could use a supervisory model within the Escalation Model that is consistent with his/her level of maturity and is appropriate for a particular situation. As a result of knowledge and experience by the supervisor and the teacher, more teacher-directed models of supervision would be in order.

The foundation of structure is found predominantly in the apprentice level but diminishes as one moves up the spectrum. The apprentice level requires less risk for the supervisor but is potentially less rewarding when compared with less-structured models found in the experienced or professional levels. Reward, also defined as incentive, could be gained if supervisors can be open to more teacher-driven types of supervision. Since every supervisor is unique and defines reward differently, the supervisor could experience reward before they reach the professional level as projected in the Escalation Model.

### **Conclusions and Recommendations**

This article represents an exercise in potential theory building that should prove useful for future research and practice related to the supervision of agricultural instruction. Ary, Jacobs, and Razavieh (1996) state that the ultimate goal of educational research is the formulation of scientific theory. They also add that “theories summarize existing knowledge, make predictions, and explain relationships...theories represent our best efforts to explain the world we live in” (p. 17). According to Warmbrod (1986), studies involving teaching and learning should begin and end with a look at theory. Scholars in agricultural education are encouraged to conduct research to test the theoretical propositions presented here. Priority should be placed on researching whether the models may be used effectively for supervising agricultural instruction, confirming or disconfirming the hypothesized link between the model and the development level of the supervisor, and confirming or disconfirming the hypothesized reward/risk spectrum. Regarding practice, supervisors of agricultural instruction can use this model to identify alternate approaches to use in different supervisory situations.

This study demonstrates that there are many options available to supervisors of agricultural instruction. Some questions this might raise related to future research are:

1. To what extent do teacher educators in agriculture use the various supervisory models?
2. What is the relationship between selected university supervisor characteristics and the extent to which levels of the Escalation Model are used?
3. Do supervisor’s maturity level match the appropriate levels of the Escalation Model?

4. Do supervisors benefit from using self-directed models with student teachers?
5. Do teachers in agricultural education benefit from supervisors using self-directed models of supervision?
6. Do supervisors benefit from starting with apprentice and progressing through the professional level of the Escalation Model?
7. Do supervisors progress through the levels over time?

### **References**

- Acheson, K. A. & Gall, M. D. (1980). Techniques in the Clinical Supervision of Teachers. New York: Longman, Inc.
- Ary, D., Jacobs, L. C., & Razavieh, A. (1996). Introduction to Research in Education (5<sup>th</sup> ed.). Orlando, FL: Harcourt Brace & Company.
- Barrick, R. K. (1985). Current and Expected Roles of Agriculture Supervisors. Journal of the American Association of Teacher Educators in Agriculture, 26(4) 44-52.
- Beach, D. M. & Reinhartz, J. (1989). Supervision: Focus on Instruction. New York: Harper & Row.
- Beach, D. M. & Reinhartz, J. (2000). Supervisory Leadership. Needham Heights, MA: Allyn & Bacon.
- Borne, C. & Moss, J. W. (1990). Satisfaction with Agriculture Education Student Teaching. Journal of Agriculture Education, 31(2) 29-34.
- Cogan, M. L. (1973). Clinical Supervision. Boston: Houghton Mifflin.
- Cook, G. E. (1996). Using Clinical Supervision to Promote Inquiry. Journal of Staff Development, 17(4) 46-50.
- Edmeirer, H. & Nicklaus, J. (1999). The impact of peer and principal collaborative supervision on teacher's trust, commitment, desire for collaboration, and efficiency. Journal of Curriculum and Supervision, 14(4) 351-378.
- Glatthorn, A. A. (1997). Differentiated Supervision (2<sup>nd</sup> ed). Alexandria, VA: Association for Supervision and Curriculum Development.
- Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (1995). Supervision of Instruction (3<sup>rd</sup> ed.). Needham Heights, MA: Simon & Schuster Company.
- Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2001). SuperVision and Instructional Leadership (5<sup>th</sup> ed.). Needham Heights, MA: Allyn & Bacon.
- Goldhammer, R., (1969). Clinical Supervision: Special Methods for the Supervision of Teachers. New York: Holt, Rinehart, & Winston.

Hedges, L. E. (1989). Supervising the Beginning Teacher. Danville, IL: The Interstate Printers & Publishers, Inc.

Hersey, P. & Blanchard, K.H. (1972). Management of Organizational Behavior: Utilizing Human Resources (2<sup>rd</sup> ed). Englewood Cliffs, NJ: Prentice-Hall.

Kay, M.W. et al. (1976). Webster's Collegiate Thesaurus. Springfield, MA: Merriam-Webster Inc.

Knowles, M. (1978). The Adult Learner: A Neglected Species. (2<sup>nd</sup> ed.). Houston: Gulf.

Martin, R. A. & Howell, D. L. (1983). Selected Supervisory Techniques Used by Principals and Their Implications to the Success of Beginning Teachers. Journal of the American Association of Teacher Educators in Agriculture, 24(3) 53-60.

Martin, R. A. & Yoder, E. P. (1986). Clinical teaching analysis: A procedure for supervising teachers. Journal of the American Association of Teacher Educators in Agriculture, 27(2) 16-21.

Montgomery, D. (1999). Positive Teacher Appraisal through Classroom Observation. London: David Fulton Publishers.

Newcomb, L. H., McCracken, J. D., & Warmbrod, J. R. (1993). Methods of Teaching Agriculture. Danville, IL: Interstate Publishers, Inc.

Ralph, E. G. (1998). Developing Practitioners: A Handbook of Contextual Supervision. Stillwater, OK: New Forums Press.

Reiman, A.J. & Thies-Sprinthall, L.T. (1998). Mentoring and Supervision for Teacher Development. New York: Addison Wesley Longman, Inc.

Sergiovanni, T. J. & Starratt, R. J. (1988). Supervision: Human Perspectives (4<sup>th</sup> ed.). New York: McGraw-Hill, Inc.

Showers, B. & Joyce, B. (1996). The evolution of peer coaching. Educational Leadership, 53(2) 12-16.

Warmbrod, J. R. (1986, March). Priorities for Continuing Progress in Research in Agricultural Education. Paper presented at the 35<sup>th</sup> Annual Southern Region Research Conference in Agricultural Education, North Little Rock, AK.