

## **Beginning Teachers' Perceptions of In-School and In-Profession Mentoring Relationships**

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### **Abstract**

*The purpose of this study was to compare two different formal mentoring relationships based on the perceptions of beginning teachers regarding their dyadic interactions. Kram's mentor role theory and Byrne's similarity-attraction paradigm served as the theoretical foundation for the study. The specific variables of interest included psychosocial mentoring, dyad similarity, and dyad satisfaction. The time and place sample consisted of beginning agricultural education teachers (n = 40) paired with a mentor in the school where they taught (i.e., in-school), and beginning agricultural education teachers (n = 40) paired with an agricultural education mentor located in a neighboring school (i.e., in-profession). Data for this study were collected by using the Mentoring Relationship Questionnaire (MRQ). No statistically significant differences were found between the two mentoring relationships. Recommendations for further investigation are suggested, including the need to expand the understanding of relationship dynamics and predictors of quality mentoring.*

### **Introduction**

It has been reported that teacher mentoring programs have become the dominant form of teacher induction during the past two decades (Fideler & Haselkorn, 1999). Over 60% of states have legislation pertaining to mentoring programs (Educational Commission of the States, 1999), and approximately two-thirds of beginning teachers said they worked closely with a mentor (Smith & Ingersoll, 2004). Even more importantly, the positive outcomes of mentoring have been documented and reported by researchers. Huling-Austin (1990) conducted a

literature review of teacher induction programs and concluded that “the most consistent finding across studies is the importance of the support (mentor) teacher” (p. 542). A mentor assists beginning teachers during their transition into the teaching profession, and contributes to the increased retention of beginning teachers (McCormick, 2001; Odell & Ferraro, 1992). With the exodus of young teachers ranking as one of the most significant issues facing education, it is important that an effective mentoring relationship be developed to assist in combating the challenges presented by the first year of teaching. Previous research has concluded that an effective mentoring relationship helps reduce the stress level of beginning teachers (Galvez-Hjornevik, 1985), improves teacher efficacy (Strong & St. John, 2001), increases job satisfaction (Holloway, 2001), and assists the professional growth of novice teachers (Darwin, 2000).

Only recently have researchers begun to concentrate on the dyad to determine the variables that are necessary for a satisfying and quality relationship between mentor and protégé. Drawing on relationship dynamics, mentoring research has examined attitudinal similarity (Ensher, Grant-Vallone, & Marelich, 2002), cognitive style similarity (Armstrong, Allison, & Hayes, 2002), leader-member exchange (LMX) theory (Somech, 2003), personality similarity (Waters, 2004), and relational demography (Sagas, Paetzold, & Ashley, 2005) to better understand the mentoring phenomenon. However, the majority of this line of research has been in a business and organizational context, and a lesser amount of research has been conducted on the mentoring relationship in education. Extending mentoring theory based on relationship dynamics to the context of career and technical education served as one of the motivators to conduct this study. Further support for this impetus was provided by Young, Cady, and Foxon (2006) who noted that “theoretical foundations for mentoring have not been developed to keep pace with empirical investigation” (p.149).

While many induction issues for beginning teachers are similar across disciplines, it can be debated that there are unique elements associated with being a career and technical education teacher that may require different mentoring strategies. For example, Greiman, Walker, and Birkenholz (2005) found that novice teachers of agricultural education were challenged by complex program management responsibilities across a broad range of areas, such as technology, laboratory management, completing paper work in the form of reports and applications, and managing FFA (student organization) activities. Relationship dynamics suggest that the extent of mentoring received by the beginning teacher may differ between those dyads that share a common teaching assignment, and those who do not. Further, the perceived similarity between the beginning teacher and their formal mentor is likely a contributing factor to the level of satisfaction experienced in the mentoring relationship. As a result, this study focused on the interaction that two cohorts of beginning agricultural education teachers had either with: (a) formal mentors located in their school, or (b) agricultural education teachers who served as formal mentors and who were located in neighboring schools. Such a study is needed to better understand the dynamics of the

mentoring relationship, and has implications for the retention of beginning teachers and their success during the induction year of teaching.

### **Theoretical Framework**

The researchers framed this study based on the conceptual understanding that mentors have two distinct functions that revolve around providing *professional* assistance and *psychosocial* assistance to protégés. Professional assistance refers to mentoring that supports novice teachers in the development of skills associated with career responsibilities, while psychosocial assistance is designed to enhance novice teachers' sense of competence and effectiveness through encouraging interactions. Support for this conceptual framework is drawn from Kram's (1985) mentor role theory, and this theoretical foundation was utilized to explain the functions that mentors play in a dyad relationship. As a result of her seminal work, Kram concluded that mentoring is a type of developmental relationship in which mentors provide two types of functions: (a) career functions, which focus on skill development of the protégé; and (b) psychosocial functions, which are centered on providing support and encouragement to the protégé. Career functions "are those aspects of a relationship that enhance learning the ropes and preparing for advancement in an organization" (Kram, p. 22). These functions increase the likelihood of the protégé becoming successful, and include sponsorship, exposure and visibility, coaching, protection, and challenging assignments. Psychosocial functions enhance an individual's "sense of competence, identity, and effectiveness in a professional role" (Kram, p. 23). Psychosocial functions include acceptance, counseling, friendship, and role modeling. Researchers (Brown, Davis, & McClendon, 1999; Kram, 1985; Noe, 1988; Ragins & McFarlin, 1990) found that two issues may influence perceptions of the psychosocial functions in cross-gender mentoring relationships: sexual concerns and restriction of identification. The potential for sexual involvement, gossip, and public scrutiny (Cunningham, 1984) in cross-gender mentoring relationships may restrict the friendship role. Further, protégés may view cross-gender mentors as restricted in their ability to relate and provide acceptance, counseling, and role modeling (Clawson & Kram, 1984; Noe, 1988). As a result, Ragins and McFarlin (1990) extended Kram's work by including a *social* function in their instrument to measure psychosocial mentoring, and Greiman (2002) added social as a fifth psychosocial function in Kram's mentor role theory. Kram suggested that the greater the number of functions provided by the mentor, the more beneficial the relationship will be to the protégé.

The second theoretical framework that underpins this study is the similarity-attraction paradigm (Byrne, 1971). This theory is anchored in relationship dynamics, and suggests that human beings have a natural tendency to be attracted to others perceived to be similar in such factors as attitude, behaviors, personality, and physical characteristics (Young, et al., 2006). Within the context of a mentoring relationship, dyad members must work together, communicate with one another, and

possibly interact on a social level. Successful dyad interactions depend on a compatible relationship that develops between the mentor and the protégé, and similarity helps to increase the quality of this interaction. As such, dyad interactions may be easier and more comfortable with individuals who have similar beliefs and attitudes. In contrast, dissimilarity leads to differences in attitudes, values, and beliefs, and to a lower communication level between dyad members (Somech, 2003).

## **Literature Review**

### **Professional and Psychosocial Mentoring**

Most of the studies regarding the mentoring phenomenon in education are overwhelmingly positive (Hansford, Tennent, & Ehrich, 2003), and professional support has been identified in the literature as an important aspect of mentoring. For example, Simon and Wardlow (1989) utilized an experimental design to compare two groups of beginning agricultural education teachers in Minnesota. Beginning teachers in the control group were not assigned mentors, while the experimental group received the benefit of both an in-school mentor, and a subject matter mentor from a neighboring school district. Mentored teachers exhibited more effective teaching behaviors, were better equipped to handle classroom management issues, exhibited a higher level of teacher efficacy, and expressed more positive attitudes than did teachers without a formal mentor. The researchers concluded that beginning teachers were strongly satisfied with the nature and quality of both their in-school mentor and their subject matter mentor. Beginning teachers were generally more satisfied with the psychosocial assistance they received from their in-school mentor, and generally relied on their subject matter mentor for professional assistance related to teaching materials, instructional resources, laboratory exercises, FFA, and Supervised Agricultural Experience (SAE) (work-based learning). A similar finding was reported by Simon (1989) who conducted an interpretive study and concluded that mentors of beginning agricultural education teachers provided professional support. Mentors helped beginning teachers by providing professional assistance with such areas as classroom management, teaching materials, FFA, curriculum and program development, and reflective thinking. Greiman (2006) found that novice agricultural education teachers and their formal mentors were somewhat satisfied with the extent of professional mentoring received. His study organized professional mentoring around four major areas related to student relationships, teaching and learning, school and parental relationships, and program management.

In addition to professional mentoring, the literature has consistently identified psychosocial support as a second function provided by mentors in a dyad relationship (Greiman, 2002). In their literature review of 159 studies involving formal mentoring programs in the context of education, Ehrich, Hansford, and Tennent (2004) concluded that the most frequent positive outcome for beginning teachers was related to psychosocial assistance. Beginning teachers reported that they received support,

empathy, encouragement, counseling, and friendship from their formal mentors. In another study, Barrera and Finley (1992) reported that beginning agricultural education teachers received guidance from a mentor committee composed of a classroom teacher, an administrator, and a teacher educator. Their study determined that beginning teachers received psychosocial assistance in the form of moral support, guidance, and a feeling of security by participating in the formal mentoring relationship. Further, Simon (1989) determined that mentors of beginning agricultural education teachers perceived their role to be one of psychological support. The researchers found that mentors served as a sounding board for beginning teachers, listened sympathetically to their problems and frustrations, and provided beginning teachers with advice, counseling, friendship, and positive reinforcement. As one mentor noted, "I gave him re-assurance, lifted him up, encouraged him and tried to get him to overcome his own insecurities" (Simon, p. 219).

The literature suggests that the induction needs of beginning agricultural education teachers might be best satisfied by a mentor who is a professional colleague and who teaches in the same subject field. For example, Greiman, Walker, and Birkenholz (2002) concluded that most beginning agricultural education teachers in Missouri were utilizing formal and informal mentors to assist them during the induction process. Although formal mentors were assigned by the school district to provide professional assistance, it appeared that informal mentors were more helpful. The majority of the respondents in the study indicated that a teacher in the school district and an agricultural education teacher located outside the school district were more helpful in providing professional assistance than the formal mentor. In another study, Peiter, Terry, and Cartmell (2003) examined Oklahoma's formal mentoring program and also found that an agricultural education teacher provided more mentoring to the beginning teacher than did the formal mentor assigned by the school district. Both Greiman et al. (2002) and Peiter et al. (2003) found that beginning agricultural education teachers were receiving little assistance from formal mentors regarding time management and organization of work, balancing personal and professional responsibilities, and in areas that were unique to an agricultural education program (i.e., FFA, SAE, student recruitment, and extended learning opportunities afforded by the summer program).

### **Dyad Similarity and Dyad Satisfaction**

The effect that similarity of dyad partners has on developing a satisfying mentoring relationship has been examined by researchers. Factors associated with the construct of dyad similarity have been identified, and include such items as communication behaviors (Michinov & Monteil, 2002), gender (Turban, Dougherty, & Lee, 2002), race (Turban, et. al., 2002), values (Ensher & Murphy, 1997), and work behaviors (Michinov & Monteil, 2002). Further, Ehrich et al. (2004) identified the major problems associated with formal mentoring programs for beginning

teachers, and personality mismatch was one of the most commonly cited problems. This mismatch between mentors and beginning teachers was the result of differences involving personality, ideology, or expertise. Simon (1989) reported that a satisfying mentoring relationship depended on personal characteristics, compatibility, and professional abilities of the dyad members. One mentor commented, "A friendship did not develop because we were too different individuals" (Simon, p. 223). Previous studies have indicated that protégés' perceived similarity was related to mentoring received (Ensher & Murphy, 1997; Greiman, 2002; Turban, et. al., 2002), and to satisfaction with the mentoring relationship (Allen, Russell, & Maetzke, 1997; Ensher & Murphy, 1997; Young & Perrewé, 2000). It has also been found that the attitudinal similarity of dyad partners is a significant predictor of protégés' satisfaction with the mentoring relationship (Ensher, et al., 2002; Nielson & Eisenbach, 2003).

Researchers have examined dyads composed of teachers who taught similar and dissimilar subjects to determine the impact this measure of similarity has on the retention of beginning teachers. For example, Smith and Ingersoll (2004) utilized data from the nationally representative Schools and Staffing Survey and concluded that beginning teachers who were provided a mentor from the same subject field were less likely to leave the teaching profession after their first year of teaching. Specifically, Smith and Ingersoll found that having a mentor in the same subject field reduced the risk of leaving teaching at the end of the first year by about 30%, while having a mentor outside one's subject field reduced the risk of leaving by 18%.

The current research study was conducted in a Midwestern state that has legislation requiring school districts to provide a formal mentor for each beginning teacher (Department of Elementary and Secondary Education, 1988). Prior to 2003, the formal mentor was a teacher located in the same school as the beginning teacher. However, state legislation enacted in 2003 provided for other mentoring arrangements, which resulted in beginning agricultural education teachers being mentored by an agricultural education teacher located in a neighboring school district. This change in the dyad structure provided the researchers with an opportunity to compare the results of the two formal mentoring relationships, and to examine whether Kram's (1985) mentor role theory applied to beginning agricultural education teachers. Further, Byrne's (1971) similarity-attraction paradigm suggests that beginning teachers who have a mentor from within their profession rather than paired with a mentor outside their profession, may perceive themselves as more similar, and perhaps they will have a higher-level of satisfaction with the relationship.

### **Purpose and Objectives**

The purpose of this study was to compare two different formal mentoring relationships based on the perceptions of beginning agricultural education teachers

regarding their dyadic interactions. The specific variables of interest included psychosocial mentoring, dyad similarity, and dyad satisfaction. The following research objectives were, therefore, addressed in the study: (a) determine and compare beginning teachers' perception of the extent of psychosocial mentoring received by mentoring relationship, (b) determine and compare beginning teachers' perception of dyad similarity by mentoring relationship, (c) determine and compare beginning teachers' perception of dyad satisfaction by mentoring relationship, and (d) determine the relationship among psychosocial mentoring received, dyad similarity, and dyad satisfaction. Based on the literature review, the following hypotheses were formulated to determine whether there were statistically significant findings in the study:

- H<sub>1</sub>: There is a statistically significant difference between in-school and in-profession mentoring relationships on psychosocial mentoring.
- H<sub>2</sub>: There is a statistically significant difference between in-school and in-profession mentoring relationships on dyad similarity.
- H<sub>3</sub>: There is a statistically significant difference between in-school and in-profession mentoring relationships on dyad satisfaction.
- H<sub>4</sub>: There is a statistically significant relationship among psychosocial mentoring, dyad similarity, and dyad satisfaction.

### **Methods and Procedures**

This study was descriptive-correlational in design (Gall, Borg, & Gall, 1996), and the target population was agricultural education teachers in their first year of teaching in a Midwestern state. The names of the beginning teachers were obtained from the Department of Elementary and Secondary Education located in the Midwestern state, and served as the population for the study. After comparing beginning teacher demographics in the Midwestern state over an extended number of years, the researchers found Oliver and Hinkle's (1982) argument to be reasonable that a sample in any given year could be representative of the population over time. As such, the time and place sample consisted of beginning agricultural education teachers ( $n = 40$ ) paired with a mentor in the school where they taught during 2001-2002 (i.e., in-school), and beginning agricultural education teachers ( $n = 40$ ) paired with an agricultural education mentor located in a neighboring school during 2003-2004 (i.e., in-profession). Both cohorts represented the entire number of beginning agricultural education teachers who were in their first year of teaching in the Midwestern state. There was one additional beginning teacher during the 2001-2002 school year, however, the school district had not assigned a formal mentor, and there was an additional beginning teacher during the 2003-2004 school year who did not participate in the induction program. A total of 70 beginning teachers ( $n_{\text{in-school}} = 39$ ,  $n_{\text{in-profession}} = 31$ ) participated in the study, which resulted in an overall response rate of 87.5%.

For the cohort of beginning teachers who had in-school mentors, the mentoring program was coordinated by each individual school district. Therefore, mentoring activities varied from teacher to teacher. Because some mentors were not agricultural education teachers, the amount and type of mentoring related to specific agricultural education responsibilities also varied. In contrast, the programming for the cohort of beginning teachers who had in-profession mentors was more structured, and consisted of several common activities (i.e., instructional planning and creating a professional development plan). Further, the dyad met formally at least three times throughout the school year.

For both cohorts of beginning teachers, data were collected at the end of their first year of teaching using the Mentoring Relationship Questionnaire (MRQ). The MRQ was developed by Greiman (2002). He adapted and modified highly reliable scales from data collection instruments utilized in previous research studies involving mentoring (Ragins & McFarlin, 1990; Turban, Daugherty, & Lee, 2002). A panel of experts ( $n = 8$ ) who had an identifiable research focus involving mentoring and/or induction of teachers reviewed the MRQ for content and face validity (Greiman, 2002). Appropriate changes to the questionnaire were made based on the recommendations of expert panel members. The MRQ consists of scales that measure psychosocial mentoring, dyad similarity, and dyad satisfaction, and the details of each scale follow.

### **Psychosocial Mentoring**

The development of this part of the MRQ was based on Kram's (1985) mentor role theory, and participants were asked to identify the extent of psychosocial mentoring provided by their formal mentors. Beginning teachers responded to 15 items representing each of the five psychosocial functions (three questions each for acceptance, counseling, friendship, role modeling, and social). The function of acceptance was represented by an item such as, "To what extent has your formal mentor accepted you as a competent colleague." An example of an item expressing the function of counseling was, "To what extent has your formal mentor been willing to discuss your questions and concerns." An example of an item that denoted the friendship function was, "To what extent has your formal mentor been someone you could confide in." The role modeling function was represented by items such as, "To what extent has your formal mentor been someone you wanted to emulate." Finally, the social function was denoted by such statements as, "To what extent has your formal mentor got together with you informally after work." Beginning teachers were asked to identify the extent that their mentors performed each of the 15 items using a 7-point Likert-type scale ranging from 1 = *not at all* to 7 = *very large extent*. Ragins and McFarlin (1990) reported Cronbach's coefficient alphas that ranged from .82 to .93 for each of the psychosocial functions, while Greiman (2002) reported a reliability coefficient of .97 for the psychosocial mentoring construct.



### **Dyad Similarity**

Five items (e.g., “My formal mentor and I have similar values and attitudes,” “My formal mentor and I see things much the same way,” “My formal mentor and I have similar teaching philosophies”) were designed to measure the perceived similarity of the dyad relationship. Turban, et al. (2002) conceptualized this global scale based on the extent that one person believes the other person has similar underlying attitudes, values, and beliefs, and they suggested that this construct is at a deeper level than gender or race similarity. Beginning teachers provided their perceptions using a 7-point Likert-type scale with 1 representing *strongly disagree* and 7 representing *strongly agree*. The reliability for this measure of dyad similarity has ranged from .87 (Turban, et al., 2002) to .98 (Greiman, 2002).

### **Dyad Satisfaction**

Five items (e.g., “In regard to the interaction with my formal mentor, the relationship has been a positive experience,” “In regard to the interaction with my formal mentor, the relationship has been successful,” “In regard to the interaction with my formal mentor, I was satisfied with the interaction”) were intended to gain a global measure of the perceived satisfaction with formal mentoring. Participants provided their perceptions using a 7-point Likert-type scale with 1 representing *strongly disagree* and 7 representing *strongly agree*. The scale was developed by Ragins and McFarlin (1990) ( $\alpha = .83$ ), and utilized in subsequent research conducted by Greiman (2002) ( $\alpha = .99$ ).

Data collection was conducted using an adaptation of Dillman’s (2000) tailored design method. For both cohorts of beginning teachers, the data collection process began by sending participants a pre-notice message announcing the intent of the study and the estimated arrival date of the survey packet. The survey packet was mailed to the beginning teachers five days later, and consisted of a personalized and signed cover letter, a questionnaire, and a self-addressed, stamped envelope. Ten days after the first mailing, an e-mail reminder notice was sent to nonrespondents to further encourage their participation. A week later, nonrespondents were sent a second packet containing a revised cover letter, a second questionnaire, and a self-addressed, stamped envelope as a reminder to participate in the study. The final contact with nonrespondents was approximately 25 days after the first mailing, and consisted of a telephone call that encouraged the return of the questionnaire.

Data were coded and entered into SPSS for the analyses. For objectives 1, 2, and 3, mean scores and standard deviations were calculated to summarize the data for interval or ratio-level data. Independent sample *t*-tests were conducted to test hypotheses 1, 2, and 3 by comparing the groups on psychosocial mentoring, dyad similarity, and dyad satisfaction. For objective 4 and hypothesis 4, Pearson Product-Moment correlations were calculated to determine the relationships among psychosocial mentoring, dyad similarity, and dyad satisfaction. To interpret the

magnitude of relationships based on the correlation coefficients, Davis' (1971) conventions were adopted: very strong relationship ( $r = .70$ ), substantial relationship ( $r = .50$ ), moderate relationship ( $r = .30$ ), low relationship ( $r = .10$ ), and negligible relationship ( $r = .01$ ). Effect sizes were calculated and interpreted using Cohen's (1988)  $d$  and  $r$  coefficients and indices: small effect size ( $d = .20$ ,  $r = .10$ ), medium effect size ( $d = .50$ ,  $r = .30$ ), and large effect size ( $d = .80$ ,  $r = .50$ ). Finally, an alpha level of .05 was established a priori for tests of significance.

## Findings

Selected characteristics of beginning agricultural education teachers and the schools where they taught are reported in Table 1. Each cohort was composed of nearly an equal percentage of male and female teachers (male  $_{in-school} = 51.3\%$ , male  $_{in-profession} = 51.6\%$ ), and the average age was nearly the same ( $M_{in-school} = 26$ ,  $M_{in-profession} = 25$ ). A permanent teaching certificate was held by 31 (81.6%) beginning teachers with an in-school mentoring relationship, and by 28 (90.3%) beginning teachers with an in-profession mentoring relationship. Twenty-two (56.4%) beginning teachers with an in-school mentor taught in a single teacher program with a mean enrollment of 80 students. Seventeen (56.7%) beginning teachers with an in-profession mentor taught in a single teacher program with a mean enrollment of 91 students.

The first objective of the study sought to determine and compare beginning teachers' perceptions of the extent of psychosocial mentoring received by mentoring relationships. As shown in Table 2, both respondent groups perceived they were receiving psychosocial mentoring to a *large extent* ( $M_{in-school} = 4.65$ ,  $M_{in-profession} = 5.01$ ). Among the psychosocial mentoring functions, both cohorts of teachers indicated they received acceptance ( $M_{in-school} = 5.14$ ,  $M_{in-profession} = 5.54$ ) the most often, while social ( $M_{in-school} = 3.66$ ,  $M_{in-profession} = 3.83$ ) was received the least often. The mean values for psychosocial mentoring and each of the five functions were higher among teachers with an in-profession mentoring relationship than among teachers with an in-school mentoring relationship. The effect size of the difference in perception between in-school and in-profession teachers regarding psychosocial mentoring was small for psychosocial mentoring ( $d = .22$ ), acceptance ( $d = .29$ ), counseling ( $d = .31$ ), and friendship ( $d = .26$ ). Negligible effect sizes were found for role modeling ( $d = .19$ ) and social ( $d = .09$ ).

Independent sample  $t$ -tests were conducted to test hypothesis one, and to determine if statistically significant differences existed between mentoring relationships on psychosocial mentoring. In each case, the calculated  $p$ -value (see Table 2) was greater than the .05 alpha level and the hypothesis was rejected. There were no statistically significant differences between in-school and in-profession mentoring relationships on psychosocial mentoring, and on each of the psychosocial functions of acceptance, counseling, friendship, role modeling, and social.

Table 1  
*Selected Characteristics of Beginning Teachers and Schools by Mentoring Relationship*

Characteristic	In-school ( <i>n</i> = 39)				In-profession ( <i>n</i> = 31)			
	<i>f</i>	%	<i>M</i>	<i>SD</i>	<i>f</i>	%	<i>M</i>	<i>SD</i>
Gender								
Male	20	51.3			16	51.6		
Female	19	48.7			15	48.4		
Certificate type								
Permanent	31	81.6			28	90.3		
Temporary	7	18.4			3	9.7		
Program type								
Single teacher	22	56.4			17	56.7		
Multiple teacher	17	43.6			13	43.3		
Age			26	6.3			25	4.0
Student enrollment			80	61.8			91	65.0

Objective two sought to determine and compare beginning teachers' perceptions of dyad similarity by mentoring relationship (see Table 3). Teachers with an in-school relationship reported a mean of 4.56 ( $SD = 1.76$ ) for dyad similarity compared to a mean of 4.90 ( $SD = 1.41$ ) for teachers with an in-profession relationship. The effect size of the difference in perception between in-school and in-profession teachers regarding dyad similarity was small ( $d = .21$ ). An independent sample *t*-test was conducted to test hypothesis two, and to determine if statistically significant differences existed between mentoring relationships on dyad similarity. As shown in Table 3, the calculated *p*-value was greater than the alpha level and, therefore, the hypothesis was rejected. There was no statistically significant

difference between in-school and in-profession mentoring relationships on dyad similarity.

Table 2  
*Beginning Teachers' Perception of Psychosocial Mentoring Received by Mentoring Relationship*

Mentoring function	In-school ( <i>n</i> = 39)		In-profession ( <i>n</i> = 31)		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Psychosocial mentoring	4.65	1.68	5.01	1.58	-.91	.36
Acceptance	5.14	1.59	5.54	1.32	-1.14	.26
Counseling	4.97	1.76	5.45	1.69	-1.12	.27
Friendship	4.90	1.98	5.37	1.76	-1.02	.31
Role modeling	4.59	1.96	4.94	1.85	-.76	.45
Social	3.66	2.06	3.83	2.23	-.34	.74

*Note.* 7-point scale (1 = *not at all*, 3 = *some extent*, 5 = *large extent*, 7 = *very large extent*)

Objective three sought to determine and compare beginning teachers' perceptions of dyad satisfaction by mentoring relationship (see Table 3). Teachers with an in-school relationship reported a mean of 5.17 (*SD* = 1.91) for dyad satisfaction compared to a mean of 5.46 (*SD* = 1.68) for teachers with an in-profession relationship. The effect size of the difference in perception between in-school and in-profession teachers regarding dyad satisfaction was negligible (*d* = .16). An independent sample *t*-test was conducted to test hypothesis three, and to determine if statistically significant differences existed between mentoring relationships on dyad satisfaction. As shown in Table 3, the calculated *p*-value was greater than the alpha level and, therefore, the hypothesis was rejected. There was no statistically significant difference between in-school and in-profession mentoring relationships on dyad satisfaction.

Table 3  
*Beginning Teachers' Perceived Dyad Similarity and Dyad Satisfaction by Mentoring Relationship*

Construct	In-school ( <i>n</i> = 39)		In-profession ( <i>n</i> = 31)		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Dyad similarity	4.56	1.76	4.90	1.41	-.87	.39
Dyad satisfaction	5.17	1.91	5.46	1.68	-.65	.52

*Note.* 7-point scale (1 = *strongly disagree*, 3 = *disagree*, 5 = *agree*, 7 = *strongly agree*)

The fourth objective sought to determine the relationship among psychosocial mentoring, dyad similarity, and dyad satisfaction. As shown in Table 4, Pearson Product-Moment correlations were calculated to test hypothesis four. From the perceptions of beginning teachers who had an in-school mentoring relationship, *very strong* (Davis, 1971) statistically significant correlations were found between dyad similarity and dyad satisfaction ( $r = .93$ , large effect size), between psychosocial mentoring and dyad satisfaction ( $r = .91$ , large effect size), and between psychosocial mentoring and dyad similarity ( $r = .82$ , large effect size). From the perception of beginning teachers who had an in-profession mentoring relationship, *very strong* (Davis, 1971) statistically significant correlations were found between dyad similarity and dyad satisfaction ( $r = .82$ , large effect size), between psychosocial mentoring and dyad satisfaction ( $r = .81$ , large effect size), and between psychosocial mentoring and dyad similarity ( $r = .74$ , large effect size). It was determined that the Pearson Product-Moment correlations were significant at the .05 alpha level, and hypothesis four was accepted. A statistically significant relationship among psychosocial mentoring, dyad similarity, and dyad satisfaction was found for both groups of beginning teachers.

Table 4  
*Intercorrelations Among Psychosocial Mentoring, Dyad Similarity, and Dyad Satisfaction by Mentoring Relationship*

Variable	1	2	3
In-school ( <i>n</i> = 39)			
1. Psychosocial mentoring	—	.82*	.91*
2. Dyad similarity	—	—	.93*
3. Dyad satisfaction	—	—	—
In-profession ( <i>n</i> = 31)			
1. Psychosocial mentoring	—	.74*	.81*
2. Dyad similarity	—	—	.82*
3. Dyad satisfaction	—	—	—

\**p* < .01.

### Conclusions, Discussion, and Recommendations

The purpose of this study was to compare two different formal mentoring relationships (i.e., in-school and in-profession), based on the perceptions of beginning agricultural education teachers regarding their dyadic interactions. Supported by Kram's (1985) mentor role theory and Byrne's (1971) similarity-attraction paradigm, the researchers hypothesized that teachers with an in-school mentoring relationship would differ from those with an in-profession mentoring relationship on the variables of psychosocial mentoring, dyad similarity, and dyad satisfaction. The literature suggests that beginning teachers in agricultural education are faced with unique challenges, will benefit from a mentor who has familiarity with the characteristics of this specific teaching assignment, and this similarity will likely result in a more satisfying dyad relationship (Ehrich et al., 2004; Simon, 1989; Smith & Ingersoll, 2004). A crucial component of evaluating the effectiveness of the dyad relationship, therefore, is whether or not an individual perceives the interaction to have been satisfying (Young & Perrewé, 2000). Previous research has found that dyad satisfaction is important for both short-term and long-term benefits. Short-term, a satisfying mentoring relationship can positively impact the retention of beginning teachers (McCormick, 2001), has been associated with increased job satisfaction

(Holloway, 2001), and helps reduce the stress level of beginning teachers (Galvez-Hjornevik, 1985). Research also suggests that the long-term benefits of mentoring experiences will affect future interactions, expectations, and attitudes toward mentoring (Fagenson-Eland, Marks, & Amendola, 1997). Establishing a better understanding regarding how to assist dyad members in building effective relationships will potentially reduce the “likelihood that a harmful relationship will form and lead to damaging outcomes for participants and potential liabilities to organizations” (Young & Perrewé, p. 626).

Although beginning teachers with an in-profession mentoring relationship perceived they received more psychosocial assistance, were more similar, and were more satisfied with their dyad relationship compared to beginning teachers with an in-school mentoring relationship, the differences were not statistically significant. Therefore, this study concluded that there was no significant difference in psychosocial mentoring, dyad similarity, and dyad satisfaction between in-school and in-profession mentoring relationships. There are several possible explanations for the lack of significance between the two mentoring relationships. First, it is possible that the results may be attributable to mentoring variables that were not part of the research project’s inquiry. For example, accessibility of the in-school mentor may have been an important variable in providing psychosocial assistance to the beginning teacher. While the in-school mentor was in the same building as the beginning teacher, the in-profession mentor was located in a neighboring school. It seems likely that due to proximity, an in-school relationship might be better suited to assisting beginning teachers with their needs in a proactive and timely manner. In contrast, the in-profession relationship might develop into a reactive and reflective approach to dealing with beginning teacher challenges. Thus, it is plausible that due to proximity, the in-school dyad may have spent more time interacting. Research (Ehrich, et al., 2004; Greiman, 2002; Long, 1997; Noe, 1988) continues to identify time limitations, incompatible work schedules, and physical distance as some of the most frequent reasons for lack of interaction by dyad partners. This study did not report this information, and as a result, it is recommended that research should investigate the frequency and scope of formal mentoring activities in relationship to psychosocial mentoring, dyad similarity, and dyad satisfaction. In addition, further investigation should examine the form of communication that dyads utilize in scenarios where mentoring might be at a distance; for example, as the in-profession mentors who were located at a neighboring school. In the past several years, there has been a dramatic increase in the number of on-line mentoring websites and computer-mediated communication (CMC) mentoring programs, but very few scholarly articles have addressed this phenomenon (Ensher, Heun, & Blanchard, 2003).

A second possible explanation for the lack of significance between the two mentoring relationships revolves around the willingness of dyad members to participate in the relationship (Hale, 2000). Wildman, Niles, Magliaro, and

McLaughlin (1989) assessed mentor traits that contributed to the success of the dyad relationship, and found *willingness to be a mentor* as an important variable. Therefore, the attitude of beginning teachers and mentors towards the mentoring relationship may have an important impact on the success of the dyad. For example, protégés who begin the mentoring relationship with a recognition of mentoring benefits, who are comfortable asking for help, and who are willing to be transparent about their abilities and needs are most likely to benefit from the experience. Accordingly, future research is needed to develop a *readiness* measure to assist dyad members in evaluating their attitudes and willingness toward participating in a mentoring relationship (Noe, 1988).

This study did find a significant relationship among psychosocial mentoring, dyad similarity, and dyad satisfaction for both cohorts of beginning teachers. This finding aligns with previous research (Allen, Russell, & Maetzke, 1997; Ensher et al., 2002; Ensher & Murphy, 1997; Greiman, 2002; Nielson & Eisenbach, 2003; Turban et al., 2002; Young & Perrewé, 2000), and lends support for Byrne's (1971) similarity-attraction paradigm. Therefore, the more a beginning teacher perceives the dyad as being similar, it is more likely the teacher will be satisfied with the dyad relationship, and it is more likely that the beginning teacher will perceive that psychosocial mentoring has been received. The implication is that administrators of teacher induction programs should consider matching dyad members based on similarity. In this study, similarity was defined as the extent that one person believes the other person has similar underlying attitudes, values, and beliefs, and this construct is at a deeper level than gender or race similarity (Turban et al., 2002). Ideally, an assessment of similarity characteristics should be conducted prior to matching so that the chances of obtaining a successful dyad are improved. The mismatch of dyad members has been identified as a major problem associated with formal mentoring programs (Ehrich, et al., 2004; Greiman, 2002; Hale, 2000; Ruhland & Bremer, 2002); therefore, additional research is needed to inform the matching process. For example, research should be conducted that inquires into the criteria employed to match dyad partners, and the identification of variables that result in an effective match.

Based on the findings of this study, it was concluded that beginning teachers were generally receiving psychosocial mentoring to a large extent regardless of the type of mentoring relationship. What is unique about the findings of this study is that Kram's (1985) mentor role theory was found to apply in the context of agricultural education. These results reveal empirical evidence to support Kram's assertion that mentors provide psychosocial assistance to their dyad partner through the acceptance, counsel, friendship, role modeling, and social functions. As a result, beginning teachers can anticipate that their sense of competence, identity, and effectiveness will be enhanced by the dyadic interactions with their formal mentors. This finding has implications for the retention of beginning teachers since lack of support is one of the major reasons that beginning teachers leave the profession



(Brighton, 1999; Darling-Hammond, 1997). Further, this study concluded that both cohorts of beginning teachers generally agreed that they were similar to their dyad partners and that they were satisfied with their dyadic interactions. This conclusion could imply that beginning teachers, regardless of the formal mentoring relationship, value the mentoring process.

There are some limitations associated with this research study. First, there is the issue of beginning agricultural education teachers who had an in-school mentor and taught in a multiple teacher program. It is possible that this scenario could have resulted in an agricultural education teacher serving as the beginning teacher's in-school mentor. Therefore, a limitation of this study is that the teaching assignment of the in-school mentor was not controlled for, and this potentially minimized the differences in psychosocial assistance, dyad similarity, and dyad satisfaction found between the two mentoring relationships. Secondly, the researchers could not control for dyad relationships involving beginning teachers who taught in multiple teacher programs. The 43.6% of beginning teachers with an in-school mentor, and 43.3% of beginning teachers with an in-profession mentor taught in multiple teacher programs. It seems likely that these on-site departmental colleagues provided informal mentoring, and this assistance may have had an effect on the beginning teacher's perceptions of mentoring received. While the questions in the MRQ specifically pertained to the beginning teachers' formal mentors, it is possible that respondents might not have easily made this distinction. Finally, readers are cautioned to limit the generalizability of the results to beginning agricultural education teachers in the Midwestern state. As such, further research with a larger population of teachers throughout the United States is desirable so that generalizability could be improved.

While this study did not find significant differences between in-school and in-profession mentoring relationships on psychosocial mentoring, dyad similarity, and dyad satisfaction, significant relationships were discovered among psychosocial mentoring, dyad similarity, and dyad satisfaction for both dyad relationships. Additionally, the study did find support for Kram's (1985) mentor role theory and Byrne's (1971) similarity-attraction paradigm as indicated by the extent of psychosocial mentoring, dyad similarity, and dyad satisfaction perceived by both cohorts of beginning teachers. This study provides an examination of mentoring relationships in the context of agricultural education, and it is recommended that this line of mentoring research be replicated with other beginning career and technical education teachers. This recommendation aligns with Ruhland and Bremer (2002) who called for research to examine the quality of the mentor relationship and its helpfulness to the beginning career and technical education teacher. Limited research has been conducted pertaining to the retention of beginning career and technical education teachers, and yet the National Commission on Teaching and America's Future (2003) identified beginning teacher retention as a "national crisis" (p. 21). The increased retention of beginning teachers is one of the most significant issues facing education (Smith & Ingersoll, 2004); therefore, research should be conducted to

better understand how mentoring impacts retention. While this study examined the psychosocial assistance provided by a mentoring relationship, further study is needed regarding the professional mentoring afforded beginning teachers through a dyadic relationship. Finally, it is recommended that additional research be conducted in regard to the understanding of relationship dynamics and predictors of effective dyad relationships. Investigating predictors of dyad satisfaction and psychosocial functions could provide insightful information regarding the dyad relationship, and could provide guidance for matching dyad partners.

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