

Best Practices for Mentoring: An Exploratory Study of Cooperating Teacher and Student Teacher Perspectives

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Abstract

With nearly one-half of U.S. teachers leaving the profession within the first five years of their career, focusing on retention is an ongoing effort. Providing quality mentorship during the student teaching internship provides further support to new teachers preparing to enter the classroom. Cooperating teachers play a pivotal role in the success of these student teachers. However, little is known about the mentoring process between the cooperating teachers and their student teachers. This study compares the perspectives of the cooperating teacher and their student teacher on the frequency of 17 best practices employed by the cooperating teacher during the student teaching experience. The results suggest cooperating teachers rate themselves as utilizing 16 of the 17 best practices of a cooperating teacher more frequently than their paired student teacher observed. In addition, the student teachers rated their observed frequency for five of the 17 best practices employed by their mentor teacher between rarely and often, implying potential weaknesses in the preparation of the cooperating teacher. Differences between the perceived practices of the cooperating teachers and the observed frequencies of these practices by their student teachers warrants further research in the preparation and support of cooperating teachers in their roles as mentors.

Keywords

Agricultural education, internship, mentorship, retention, teaching

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Introduction and Problem Statement

Attempts at teacher retention occurs through a variety of efforts and programs and is often focused on the first years of teaching because 44% of teachers leave the profession within the first five years of starting their teaching careers (Ingersoll et al., 2018). Increasing self-efficacy during the student teaching experience has been linked to a higher intention to teach, with previous research indicating the importance of an effective cooperating teacher (CT) relationship as a major component (Edgar et al., 2011; Kasperbauer & Roberts, 2007; Roberts, 2006; Rocca, 2005). Higher teacher self-efficacy can help to lower teacher burnout and increase retention (Swan et al., 2011). Roberts (2006) developed a model for CT effectiveness; however, confusion from cooperating teachers as to their exact role during the internship experience remains (Dunning et al., 2011; Ganser, 2002). To support the relationship of the CT and student teacher (ST), and provide guidance on how to utilize observation, feedback, and appropriate mentorship, CTs need be prepared and supported for their role (Young & MacPhail, 2005).

To support the mentor-mentee relationship of the CT and their ST, Korte and Simonsen (2018) indicated the need to implement best practices of mentoring. Formalized mentoring should be structured during pre-service teacher experiences to support growth and development, as well as teacher self-efficacy (Korte & Simonsen, 2018). Previous research indicated that CTs tend to shy away from critical feedback and teaching observations overall (Zimpher et al., 1980). However, when CTs have been given guidance and training for their role, they are more likely to provide quality feedback to student teachers (McIntyre & Killian, 1987).

Theoretical and Conceptual Framework

The theoretical foundation for this study was rooted in constructivism, where assumptions are made that learners construct their own knowledge through experiences in a variety of social environments (Vijaya Kumari, 2014; Vygotsky, 1978). Constructivism posits that students who are learning a new skill are more likely to be successful if they are taught by someone advanced or experienced in that area. This is further realized by the description of instructional scaffolding, where the construction of new ideas can be strengthened and formed with a firmer foundation (Oyster & Bobbit, 2020; Seifert & Sutton, 2009).

Higher education institutions are often criticized in this area as they typically elicit only a few means for evaluating student perspectives and outcomes within the broader purposes of the institution (Burke, 2005). Assessments will often extend beyond measuring knowledge acquisition to include behavioral evaluations, assessing the frequency for which students and teachers are carrying out certain practices. For example, it is common for assessments to ask students and teachers to report current or past participation, frequency, or duration in certain activities (Gonyea, 2005).

According to Astin (1993), the main advantage and potential rationale for using self-reported data for evaluative purposes in educational context is feasibility. Astin (1993) claimed that self-

report questionnaires, while exhibiting lower fidelity, have a greater bandwidth to collect data. Many times, self-reported data from survey/questionnaires are often the only practical source of certain types of information because they are quicker and more economical to implement than objective testing or observational studies. One must consider that many desired outcomes are difficult to measure empirically, and in cases where measures are available, they are often costly and impractical (Gonyea, 2005).

An issue that threatens the credibility of self-reported data is social desirability bias (SDB). SDB has the potential to present a challenge in conducting this line of research, including cooperating teacher assessments in the context of higher education (Chichekian & Shore, 2016). SDB is the desire of respondents to edit their responses before communicating such to researchers to present themselves in a more positive light (Beretvas et al., 2002). Respondents may feel a need to present themselves favorably to the interviewers or researchers to preserve their self-esteem (King & Bruner, 2000). SDB can compromise evaluations in one of two ways: (a) overreporting of socially desirable behavior (such as performing teaching best practices) and underreporting of socially undesirable behavior (e.g., extensive absence), and (b) attenuation, inflation, or moderation of relationships between variables (King & Bruner, 2000). This causes discrepancies in student and teacher responses and the researchers' ability to generalize results.

The development of effective mentoring programs and models can help to strengthen pre-service teacher skills and assist in a successful start to a career in teaching (He, 2010). The areas of mentorship explored in this study support major tenets of successful mentorship characteristics and build on the work of previous research that has identified areas of focus for CT effectiveness (He, 2010). Roberts' (2006) model of cooperating teacher effectiveness focused on the areas of teaching/instruction, professionalism, ST/CT relationship, and personal characteristics. The area of ST/CT relationship from Roberts' 2006 study and findings from Stewart et al. (2017) make a case for mentoring and its imperative role in the development of student teachers. Further advancement of the nuanced understanding of the participation of CTs has the potential to help researchers better facilitate the significant role of the CT and the development of the next generation of school-based agricultural educators (Clarke et al., 2014).

Purpose

The purpose of this study was to compare the frequency of best practices for mentoring as self-reported by CTs with the perspectives of their paired STs. Three objectives guided this study:

1. Determine the frequency of use of best practices for mentoring behaviors from the perspective of CTs.
2. Determine the frequency of use of best practices for mentoring behaviors from the perspective of STs.
3. Compare the perspectives of CTs and STs for the frequency of best practice mentoring behaviors.

Methods

This exploratory study compared the frequency of best practices for mentoring behaviors of CTs and the perspective of these behaviors from the viewpoint of their STs. This study utilized survey research methods. The data collected were part of a larger research project that explored CT needs for professional support and the use of best practices for mentoring. The University of Florida Department of Agricultural Education and Communication instituted a CT and ST workshop aimed at developing skillsets and increasing the understanding of expectations for both STs and the CTs.

The population for this study included the University of Florida Department of Agricultural Education and Communication's CTs who served in their role during the spring semester of 2021 ($N = 7$), as well as the University of Florida's STs who were under their supervision for that term ($N = 7$). Data were collected following the conclusion of the 14-week student teaching internship. The survey questionnaires were delivered using Qualtrics software. All participants were assigned a study identification number to complete paired analysis of the STs and CTs responses. Analysis of data was conducted using Statistical Package for Social Sciences (SPSS) version 26. Of the seven CTs, six responded to the survey; all seven STs responded to the survey. Because of the nature of this comparative study, the data for the unmatched ST were not analyzed.

The questionnaire listed 17 best practices for mentoring behaviors in the areas of professional support, social support, and role modeling (Table 2). The 17 best practices for cooperating teachers used in this study were derived from the work of Alemdağ and Şimşek (2017) and their focus on practicum experiences of pre-service teachers, as well as Russell and Russell (2011) and the implications for more formal mentoring programs. To ensure content validity, the behaviors were vetted by three agricultural education faculty at the University of Florida. The construct used in this study was piloted in 2019 with 15 CTs who had served in that role during the spring 2019 semester. The construct measured the frequency of use of best practices for mentoring and had a Cronbach's alpha of $\alpha = .82$. For the 2021 cohort, this same construct had a Cronbach's alpha of $\alpha = .72$ for the CT instrument and $\alpha = .94$ for the ST instrument. The respondents were asked to rate the frequency of use of the behavior utilizing a frequency scale with response options of (1) *always*, (2) *often*, (3) *sometimes*, (4) *rarely*, and (5) *never*. The only variation in the instruments for the CTs and STs was the use of first-person pronouns for CTs. Cooperating teachers self-reported on frequency of use of best practices for mentoring behaviors that they implemented, while STs reported on their observation of best practices mentoring behaviors of their CTs.

Researchers analyzed the overall mean scores for CTs and STs for each of the 17 mentoring behaviors. A paired samples t-test was used to analyze the set of matched pairs of data. Using histograms as suggested by Lomax and Hahs-Vaughn (2012), all dependent variables were distributed normally prior to analysis. The matched samples consisted of the student teacher

and the cooperating teacher, who worked together collaboratively during a 14-week student teaching spring 2021 internship.

Findings

Objective 1

Of the seven CT's surveyed, six responded. Participants had an average rating of 1.52 ($SD = .67$). This shows that cooperating teachers perceived that they exhibited best practices for mentoring an average between *often* and *always* (see Table 1). Of the 17 best practices for mentoring behaviors, cooperating teachers rated themselves significantly lower for two behaviors, i.e., the use of observational data as the basis for feedback sessions ($M = 2.17$, $SD = .75$) and encouragement of the student teachers to maintain active memberships in Florida Association of Agricultural Educators (FAAE), National Association of Agricultural Educators (NAAE), and Florida Association for Career and Technical Education (FACTE) ($M = 2.83$, $SD = 1.17$) (see Table 2). It is important to note that the standard deviation for encouragement of the student teachers to maintain active memberships in FAAE, NAAE, and FACTE was larger than 1.0, which reflects a broader range of responses from participants.

Table 1

Cooperating Teacher and Student Teacher Frequency of Best Practices for Mentoring Behaviors.

Respondents	<i>n</i>	<i>M</i>	<i>SD</i>
Cooperating Teachers	6	1.52	.67
Student Teachers	6	1.79	.80

Note. The ratings on the scale were (1) *always*, (2) *often*, (3) *sometimes*, (4) *rarely*, and (5) *never*.

Table 2

Cooperating Teacher's Frequency Scores for Perceived Demonstration of Best Practices for Mentoring Behaviors.

Behavior	<i>n</i>	<i>M</i>	<i>SD</i>
Encouraged the student teacher to maintain active memberships in FFAE, NAAE, and FACTE	6	2.83	1.17
Used observational data as the basis for feedback sessions	6	2.17	.75
Communicated openly with my student teacher/intern	6	1.67	.82
Involved my student teacher in all of my roles as a teacher	6	1.67	.52
Discussed strategies for effectively managing time, priorities/projects, and email	6	1.67	.82
Provided weekly comprehensive feedback on performance in an uninterrupted setting	6	1.50	.55
Encouraged the student teacher to take the lead in evaluating their teaching	6	1.50	.84
Made an effort to introduce my student teacher to the school community	6	1.50	.55
Discussed effective student discipline strategies with my student teacher for maintaining a productive learning environment	6	1.50	.55
Shared approaches for effectively managing the administrative aspects of teaching, including building effective relationships with administrators and other teachers	6	1.50	.55
Communicated regularly with my student teacher/intern	6	1.33	.52
Supported my student teacher's effort by staying attuned to their mindset, attitude, and well-being	6	1.33	.52
Talked to my student teacher about how to become an excellent teacher through all phases of their career	6	1.33	.82
Made an effort to help my student teacher develop positive views of teaching	6	1.17	.41
Coached my student teacher on strategies for developing a positive rapport with students	6	1.17	.41
Shared my approaches for SAE program development and supervision	6	1.00	0
Shared my philosophy for FFA advising	6	1.00	0

Note. The ratings on the scale were (1) *always*, (2) *often*, (3) *sometimes*, (4) *rarely*, and (5) *never*.

Objective 2

All seven student teachers responded to the survey, but for the purposes of this study and alignment of responses for the paired *t* analysis, one student teacher was removed from the data set. Respondents had an average rating of 1.79 (*SD* = .80) for their observation of mentoring best practices. Overall, the frequency observed by student teachers was closest to *often* (see Table 1). When reviewing individual best practices, there were five that had a mean

score between 2.00-4.00 (see Table 3), indicating a frequency between *rarely* and *often*. The following behaviors were included in that range of 2-4: shared approaches for SAE program development and supervision; shared philosophy for FFA advising; shared approaches for effectively managing the administrative aspects of teaching, including building effective relationships with administrators and other teachers; encouraged the student teacher to maintain active memberships in FFAE, NAAE, and FACTE; and discussed strategies for effectively managing time, priorities/projects, and email. Three CT behaviors had standard deviations larger than 1.0, indicating a broader range of participant responses: encouragement to maintain active memberships in FFAE, NAAE, and FACTE, sharing approaches for SAE program development, and sharing philosophies for FFA advising.

Table 3

Student Teachers' Frequency Scores for Observed Best Practices of Mentoring Behaviors Demonstrated by their Cooperating Teachers.

Behaviors	<i>n</i>	<i>M</i>	<i>SD</i>
Encouraged to maintain active memberships in FFAE, NAAE, and FACTE	6	3.83	1.48
Shared their approaches for SAE program development and supervision	6	2.00	1.10
Shared their philosophy for FFA advising	6	2.00	1.27
Shared their approaches for effectively managing the administrative aspects of teaching, including building effective relationships with administrators and other teachers.	6	2.00	.89
Shared strategies for effectively managing time, priorities/projects, and email.	6	2.00	.63
Involved me in all of my roles as a teacher	6	1.83	.75
Talked to me about how to become an excellent teacher through all phases of their career	6	1.83	.98
Discussed effective student discipline strategies with me for maintaining a productive learning environment	6	1.83	.75
Was attuned to my mindset, attitude, and well-being	6	1.67	.41
Encouraged to take the lead in evaluating my own teaching	6	1.67	.41
Made an effort to introduce me to the school community	6	1.67	.82
Coached me on strategies for developing a positive rapport with students	6	1.67	1.21
Communicated regularly with me	6	1.50	.55
Provided weekly comprehensive feedback on performance in an uninterrupted setting	6	1.50	.55
Made an effort to help me develop positive views of teaching	6	1.50	.55
Communicated openly with me	6	1.33	.52
Used observational data as the basis for feedback sessions	6	1.33	.52

Note. The ratings on the scale were (1) *always*, (2) *often*, (3) *sometimes*, (4) *rarely*, and (5) *never*.

Objective 3

When comparing the perspectives of the cooperating teachers and student teachers, the cooperating teachers had an overall slightly higher frequency for their self-reporting of best practice mentoring behaviors ($M = 1.52, SD = .67$) than the student teachers who would have received the mentoring and observed these behaviors ($M = 1.79, SD = .80$) (see Table 1). Only one instance occurred of an overlap in lower frequency behaviors from both groups, indicating agreement that the behavior was not implemented at a high frequency. The behavior at an equally low frequency included the encouragement of the student teacher to maintain active memberships in FAAE, NAAE, and FACTE (see Table 2 & 3).

A paired samples t -test was conducted to determine if a difference existed in the mean scores of the cooperating teachers' frequencies and the mean scores of the paired student teachers. Descriptive statistics in Tables 4 and 5 show missing data for Pair 4. This was due to the same reported responses by cooperating teacher and student teacher for both the self-reported and observed best practices mentoring behaviors. The t -test was run to determine if a significant difference existed within pairs (see Table 6). One paired sample was removed from the data set because of matching responses. The results indicated that the reported frequency for best practice mentoring behaviors were statistically significantly different for Pair 3 ($t = -2.135, df = 16, p = .049$), and Pair 5 ($t = -3.246, df = 16, p = .005$). Effect size was calculated as $d = .37$. Using Cohen's (1988) guidelines, this is a small effect size.

Table 4

Paired Samples Statistics for Cooperating Teachers' and Student Teachers' Frequency of Best Practices for Mentoring Behaviors.

		<i>M</i>	<i>n</i>	<i>SD</i>	<i>SE</i>
Pair 1	CT1	1.41	17	.51	.12
	ST1	1.88	17	.99	.24
Pair 2	CT2	1.77	17	.66	.16
	ST2	1.70	17	.99	.24
Pair 3	CT3	1.24	17	.56	.14
	ST3	1.65	17	.86	.21
Pair 4	CT4	1.41	17	.51	.12
	ST4	1.00	17	.00	.00
Pair 5	CT5	1.35	17	.61	.15
	ST5	2.41	17	1.23	.30
Pair 6	CT6	1.94	17	1.14	.20
	ST6	2.00	17	.75	.18

Note. CT = Cooperating Teacher; ST = Student Teacher

Table 5

Paired Samples Correlations for Cooperating Teachers' and Student Teachers' Frequency of Best Practice Mentoring Behaviors

		<i>n</i>	<i>Correlation</i>	<i>P</i>
Pair 1	CT1 & ST1	17	.23	.38
Pair 2	CT2 & ST2	17	.56	.02
Pair 3	CT3 & ST3	17	.44	.08
Pair 4	CT4 & ST4	17	.	.
Pair 5	CT5 & ST5	17	.04	.87
Pair 6	CT6 & ST6	17	.44	.08

Note. CT = Cooperating Teacher; ST = Student Teacher

Table 6

Paired Samples t-Test for Cooperating Teachers' & Student Teachers' Frequency of Best Practice Mentoring Behaviors

		Paired Differences					<i>t</i>	<i>df</i>	Sig. (2-tailed)
		<i>M</i>	<i>SD</i>	<i>SE</i>	95% Confidence Interval				
					Lower	Upper			
Pair 1	CT1 ST1	-.47	1.00	.24	.99	.05	-1.93	16	.07
Pair 2	CT2 ST2	.06	.83	.20	-.37	.48	.29	16	.77
Pair 3	CT3 ST3	-.41	.80	.19	-.82	.00	-2.13	16	.05
Pair 5	CT5 ST5	-1.06	1.34	.33	-1.75	-.37	-3.25	16	.01
Pair 6	CT6 ST6	-.12	1.05	.26	-.66	.42	-.46	16	.65

Note. CT = Cooperating Teacher; ST = Student Teacher.

Conclusions, Discussion, and Recommendations

This study begins to provide a better understanding into the mentor-mentee relationship between the cooperating teachers and student teachers. First, the cooperating teachers felt successful in their implementation of the behaviors after receiving training prior to the mentor experience as supported by the constructivist foundation of the study (Vijaya Kumari, 2014; Vygotsky, 1978). However, the cooperating teachers' self-reported data could potentially be explained by their desirability to look successful when completing the survey questionnaire (i.e., SDB) (Beretvas et al., 2002). Based on literature about self-reported data, regarding the mentoring they received, student teachers' perceptions may provide a more accurate representation of what has occurred (Beretvas et al., 2002; Goneya, 2005).

Our recommendation for cooperating teachers is to self-assess their use of the 17 best practice behaviors before, during, and after each experience with a student teacher. Cooperating teachers should ideally incorporate best practices at a high frequency when mentoring student teachers, striving to make the time for formal observations, as well as regular feedback and reflection time with their mentees. We recommend that the university faculty who partner with cooperating teachers take the time to assess potential gaps in the knowledge and understanding of best practices for mentoring student teachers. Once identified, these gaps could help provide teacher educators with guidance on how to adjust professional development to meet the needs for the preparation and support of cooperating teachers.

We recommend that similar studies be conducted with a larger sample size and recognize the findings from this study are not generalizable due to the small sample size and lack of random selection of participants. The needs of the cooperating teachers may vary according to current practices being implemented as well as the experiences of the cooperating teachers. It would be helpful to partner with other institutions to implement similar professional development and support measures to gain a richer perspective. In addition to collecting survey data, we recommend the use of observational data to gain a more robust view of the mentoring experience from both perspectives. Exploring the perspectives of cooperating teachers through interviews would help researchers obtain additional insight into how teachers implement mentorship best practices. Gaining a deeper understanding on ways that cooperating teachers are actively mentoring student teachers could help researchers clarify best practices for future cooperating teachers.

We are currently conducting interviews to better grasp how cooperating teachers specifically implement best practices for mentoring student teachers during the internship experience. Additional research should be conducted to explore additional ways to support the implementation of best practices that are being utilized less in the student teaching experience. Furthermore, research regarding the differences between cooperating teachers' and student teachers' perceptions is needed to better understand why student teachers observed less practices than the cooperating teachers perceived they used. This type of research could also provide insight on potential needs to modify current mentoring models in teacher education. Young & MacPhail (2005) stressed the importance of preparation and support of cooperating teachers, and results from this exploratory study may provide some guidance for teacher educators toward their needs regarding student teacher mentorship.

Acknowledgements

We would like to thank the Florida cooperating teachers and student teachers who participated in our study. Author Contributions: **H. Nesbitt** - analysis, writing-review & editing; **D. Barry** - investigation, analysis, writing-original draft, review & editing; **K. Lawson** - writing-review and editing; **J. Diaz** - writing-original draft.

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