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Journal of Research in Technical Careers

Volume 7 | Issue 2 Article 1

12-2023

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Recommended Citation

Thiel, B. L., Benna, J. V., Pastir, B., & Fideldy-Doll, N. (2023). Career and Technical Education Teachers' Perceptions of Instructional Feedback from Supervisors. *Journal of Research in Technical Careers, 7* (2). https://doi.org/10.9741/2578-2118.1142

Journal of Research in Technical Careers
December 2023, Vol. 7, No. 2

Career and Technical Education Teachers' Perceptions of Instructional Feedback from Supervisors

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The purpose of this study was to examine Career and Technical Education (CTE) teachers' perceptions of feedback from supervisors. All CTE teachers in North Dakota were surveyed during early 2023. A series of one-way ANOVAs and t-tests were run to compare the differences in teachers' perceptions based upon reported professional characteristics. The results of the study indicate that, even though CTE is different from other content areas, CTE teachers still prefer pedagogical feedback over content-specific feedback. Unless, however, the supervising principal was a former CTE teacher, then the feedback related to their lived experience seemed to be valued by the teachers. It is recommended that supervisors work to understand the unique expectations and responsibilities held by CTE teachers compared to other teachers.

Keywords: career and technical education teachers, educational leadership, instructional feedback, educational administration, scale development

Introduction

Quality instructional feedback is the lynchpin to effective instructional supervision (Blase & Blase, 2003; Kimball, 2002; Sergiovanni & Starratt, 2007). Feedback offers teachers one way to acquire new knowledge and deepen understanding about their practice (Burch & Spillane, 2003). Drago-Severson and Blum-DeStefano (2023) argue feedback is "the *most* important way" (p. 35) to transform instruction. Given the nature of secondary schools, those who share instructional feedback are challenged by their work with teachers across numerous grade levels and subject areas. There is, however, limited research about how secondary-level administrators approach, think about, and differentiate feedback about content-specific instruction (Kubasko et al., 2019; Lochmiller, 2016). Thus far, the literature on instructional supervision provides little insight as "many of the conceptualizations of instructional supervision treat supervisory behaviors generically, focusing primarily on leadership actions that

https://doi.org/10.9741/2578-2118.1142

seemingly cut across content areas without describing the nuances that might arise as administrators supervise different subjects" (Lochmiller, 2016, p. 79).

Grossman and Stodolsky (1995) highlight that while scholars have explored differences in teacher perceptions, beliefs, and practices as they relate to specific subjects, less is known about how subject matter differences influence instructional supervision. Furthermore, much of the research that has focused on instructional leadership in specific content areas has been studied in elementary school settings (e.g., Nelson, 2010; Nelson & Sassi, 2000). This study aims to contribute to our understanding of instructional leadership by examining CTE teachers' perceptions of the feedback they receive from supervisors.

Westberry and Addison-Stewart (2023) delineate key characteristics of CTE and of traditional academic classrooms that have direct implication for instructional supervision. CTE classrooms frequently parallel industries and workplaces with plentiful opportunities for hands-on learning. This is important as many learning standards for CTE programs are skills-based. In addition, differences in CTE classrooms also include: "the use of modeling, peer-to-peer learning, safety protocols, twenty-first-century soft skills, and performance assessments" (p. 164). They argue that most instructional supervision and feedback practices "do not consider these differences and do not provide for variances" (p. 164) in CTE settings. Additionally, CTE teachers are expected to manage complete CTE programs which may include assembling an advisory committee, advising CTSOs, and managing work-based learning experiences beyond their normal teaching expectations (North Dakota Career and Technical Education, 2023).

Conceptual Framework

In approaching the study, we acknowledge that the purposes and processes of evaluation and supervision are distinct. *Supervision* is specifically aimed at providing ongoing support for teacher's professional learning and growth; *evaluation* is a human resource component aimed at teacher quality by assessing a teacher's performance (Darling Hammond, 2013; Glickman et al, 2013). Despite these foundational differences, supervision and evaluation do overlap in several important ways (Mette et al., 2017). Together with other systems of support (e.g., mentoring programs) they are embedded as key components of instructional supervision and all of which—formally or informally—include instructional feedback (Sergiovanni & Starratt, 2007). Our study is framed by the work of Lochmiller (2016) who explored the perceptions of both high school principals and teachers—specifically science and math teachers—regarding the nature and efficacy of instructional feedback. In addition, we concur with Westberry and Addison-Stewart (2023) who note that CTE has changed in significant ways over the last two decades and acknowledge that its programs stand out as unique among secondary school curriculum areas in that they "not only provide students with academic and technical skills but also the knowledge and training needed in specific careers" (p. 163).

Content-Specific Instructional Feedback: The Lochmiller Study. In a multi-case qualitative study, Lochmiller (2016) aimed to answer the question: "Within the context of the feedback administrators provide to classroom teachers, how do

administrators differentiate their feedback based on the subject area?" (pp. 77-78). He interviewed 50 individuals--science teachers, math teachers, and principals--across five comprehensive US high schools. Salient to our study are two key findings which are summarized below.

Instructional feedback focused on pedagogy rather than content.

Feedback provided to teachers "focused on basic pedagogical strategies and sought to deemphasize the unique aspects of math and science content that teachers perceived were important" (Lochmiller, 2016, p. 90). In other words, administrators' feedback suggested that strong teaching practices in math and science were equally valuable teaching practices across other subjects. In doing so, the administrators "positioned their understanding of the content area as being less important than their understanding of good pedagogical practice" (pp. 90-91). This stood in contrast, however, with the perceptions of math and science teachers "who tended to privilege their content area" (p. 91) and who wanted feedback that acknowledged the unique aspects of their content. Furthermore, on the teachers' account, administrators must have a "substantial understanding of the content" (p. 91) in order for their feedback to be considered effective. When teachers described helpful instructional feedback, however, "their examples often represented the generic types of pedagogical recommendations that they appeared to critique administrators for providing" (p. 92).

Feedback anchored in administrators' experiences as teachers.

Lochmiller (2016) also found that administrators' perceptions of math and science teaching practices "were often anchored in their past experience as classroom teachers" (p. 93) and this served as a framework for teacher observations and "how they presented their comments to classroom teachers" (p. 93). Importantly, Lochmiller found that "administrators often bound their feedback within the context of their own content area" and that "they approached their supervision of instruction by drawing upon their content area expertise" (p. 94) regardless of whether or not the teacher they had observed was teaching the same content.

Purpose and Objectives. The aim of this study was to examine the feedback CTE teachers receive from their supervisors. Additionally, the study explored how supervisor experiences impact the feedback they provide to the teachers they supervise. The study utilized the following objectives:

1. Describe teachers' perceptions of supervisor feedback.
2. Determine the association between teacher characteristics (years of experience, size of school, and pathway to licensure) and their perceptions of supervisor feedback ($H_0 = \mu_1 = \mu_K$; $H_1 = \mu_1 \neq \mu_K$).
3. Determine the relationship between teachers' perceptions of supervisor feedback and administrators' prior teaching experiences ($H_0 = \mu_1 = \mu_2$; $H_1 = \mu_1 \neq \mu_2$).

Methods

The population of interest was CTE teachers in North Dakota. The total population was estimated to be 635 (*N*) based upon information provided by the North Dakota Department of Career and Technical Education (L. Ruff, personal communication, January 30, 2023). The study employed a one-measurement cross-sectional survey design (Cohen et al., 2011) where teachers completed an online questionnaire via Qualtrics to acquire demographic information and their perceptions of their experiences with supervision and evaluation. Data were collected via email using a census of all CTE teachers during the months of February and March in 2023. CTE educators from the following content areas (a) agricultural education; (b) business education; (c) family and consumer science education, (d) health science education; (e) marketing education; (f) technology/engineering education; and (g) trade, industrial, and technical education were included in the sampling frame. Three reminder emails were sent via the CTE listservs. A total of 111 surveys were returned ($N = 111$), achieving a 17.5% response rate. Surveys were evaluated for completeness, response set, and other completion errors. In total 8(*n*) were removed, leading to a final usable sample of 103(*n*) (16.2% response rate). Non-response error was checked using an independent samples *t*-test and no differences were found between early and late respondents (Field, 2013).

Instrument. The Instructional Feedback Perceptions - Teacher Scale (IFP-TS) was developed specifically for this study. Using the findings from Lochmiller (2016), five a priori constructs were developed for the instrument. Within those constructs, 46 Likert-type scaled items were drafted using the question stem "From this supervisor…" to gather information about the types of feedback teachers receive from their supervisors. Teachers responded to a complete set of question prompts for each of their reported supervisors. A five-point scale and descriptors were used for responding and included: 1 (*strongly disagree*), 2 (*disagree*), 3 (*neither agree/disagree*), 4 (*agree*), and 5 (*strongly agree*). The items were subjected to test-retest reliability and 34 items were retained with a minimum $r = 0.7$ Pearson's correlation coefficient and a p value of less than 0.5.

A panel of two faculty experts ($n = 2$), reviewed the instrument for content validity. The faculty experts had experience as principals and supervisors, which allowed them to view the instrument through the lens of a practitioner. Adjustments were made to the final instrument based upon feedback from the experts.

The instrument was subjected to an exploratory factor analysis (EFA) using principal axis factoring (Field, 2013). After the initial factor extraction, the data was evaluated for multicollinearity and minimally correlated variables. Horn's Parallel Analysis (Horn, 1965) was used to determine that a four-factor solution was the most appropriate for the instrument. After the final factor solution was tested, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) was found to be .94. The final resulting factors were (a) General Feedback: feedback associated with teaching strategies, content-specific practices and teacher growth (7 items, $\alpha = .95$); (b) CTE Specific Feedback: feedback addressing components of CTE such as CTSO's, work-based learning, and overall program goals (3 items, $\alpha = .88$); (c) Affirmative Feedback:

feedback that offers support and encouragement, validates a teacher's practice, and expresses positive belief (6 items, α = .95); and (d) Lived Experience Feedback: feedback related to the supervisor's prior experience as an educator (5 items, α = .78). The overall reliability of the instrument was α = .95. A complete list of the items included in each construct can be found in Table 1.

Table 1
Final Instrument Items and Loadings for Each Construct

Item #	Item Stem	Loading
	Construct 1: General Feedback	
11.3	The feedback they provide helps me improve my instructional practice	.934
7.4	They provide feedback to help me grow as an educator	.897
11.4	They provide feedback to help me grow as a teacher in my content area	.858
7.9	They focus their feedback on relevant pieces of my teaching	.802
7.8	I receive feedback focused on teaching strategies related to my content	.770
12.4	They provide helpful modeling of teaching strategies	.732
11.9	The feedback I receive causes me to reflect upon my teaching	.700
	Construct 2: CTE Specific Feedback	
11.6	I receive feedback about my role as a Career and Technical Student Organization (CTSO) advisor	.816
11.7	I receive feedback about my role as a work-based learning (or SAE) supervisor	.707
12.8	I receive feedback about my CTE program	.570
	Construct 3: Affirmative Feedback	
13.3	I feel supported.	.889
13.4	I feel valued.	.819
13.5	I feel understood.	.671
7.7	I receive praise for the positive things I do as a teacher	.648
13.1	The feedback I receive is credible	.595
12.3	They understand what makes my content area unique	.528
	Construct 4: Lived Experience Feedback	
11.8	Their feedback is more credible due to their teaching experience	.610
11.5	I am provided with feedback based upon their past experiences as a teacher	. 578
12.7	I am given examples from their time as a classroom teacher	.578
11.2	Their feedback is confined to their own content area teaching experience	.471
7.6	The feedback they give is more relevant because of their prior teaching experience	.424

The final section of the survey included five demographic questions and statements to collect information regarding years of experience, content area taught, method of earning teaching licensure, and size and type of the school in which they work.

Data Analysis. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) software version 28. The data set was checked for errors, outliers, and response set, and necessary assumptions of normality, homogeneity of variance, and independence were met. Descriptive statistics were run to analyze independent and dependent variables, including means and standard deviations. Group means for objective two were analyzed using several one-factor between subjects ANOVAs to assess the influence of the independent variables of teachers' years of experience, method of earning licensure, and school size on teachers' perceptions of supervisor feedback. Gabriel's pairwise test procedure was selected to conduct post hoc tests due to the unequal sample sizes between groups (Field, 2013). To compare the differences between perceptions of teachers whose principals were also CTE educators and those who were not CTE educators, independent samples *t*-tests were run with a 95% confidence level.

Description of Respondents. Descriptive statistics were used to analyze demographic information of the respondents. Characteristics of the sample are found in Table 2. The greatest number of respondents were business educators (33.8%, $n = 35$) whereas the fewest represented were health science educators (2.9%, $n = 3$). The largest group of respondents had 0-5 years of experience (21.4%, $n = 22$) whereas the smallest groups fell under both 26-30 years of experience (8.7%, $n = 9$) and 31 or more years (8.7%, $n = 9$). The majority of respondents received their license through traditional means (69.9%, $n = 72$) while the teacher licensure option was our smallest group (4.9%, $n = 5$). It was more common for participants to teach at a traditional high school (91.3%, $n = 94$) than it was to teach at a Career and Technology Center (4.9%, $n = 5$). The largest percentage of teachers taught at a small school, having fewer than 30 in the graduating class, (46.6%, $n = 48$) while the medium school, having 31-100 students in the graduating class, was our smallest group (24.3%, $n = 25$).

Table 2
*Demographic Characteristics of Participating Teachers (*N = *103)*

Variable	*n*	%
Years of Experience		
0-5 years	22	21.4
6-10 years	20	19.4
11-15 years	13	12.6
16-20 years	15	14.6
21-25 years	12	11.7
26-30 years	9	8.7
31 or more years	9	8.7
Missing	3	2.9
Content Specialty		
Ag Ed	32	31.1
Business Ed	35	33.8
FCS	24	23.3
Health Sci	3	2.9
IT	9	8.7
Marketing	6	5.8
Tech/Engineering	9	8.7
Trade, Industry, and Technical	5	4.9
Other	3	2.9
Licensure		
Traditional Licensure	72	69.9
Praxis Test	9	8.7
Alternative Licensure	15	14.6
Teacher Licensure Option	5	4.9
Missing	2	1.9
Type of School Taught in		
Traditional High School	94	91.3
Career and Technology Center	5	4.9
Missing	4	3.9
Size of School		
Small (fewer than 30 in graduating class)	48	46.6
Medium (31-100 in graduating class)	25	24.3
Large (more than 100 in graduating class)	28	27.2
Missing	2	1.9

Results

Objective 1: Teachers' Perceptions of Supervisor Feedback. Objective one was to describe teachers' perceptions of supervisor feedback. In general, CTE teachers in North Dakota reported moderately balanced feedback from all of their supervisors. Teachers reported instructional coaches provided the most general feedback (M = 3.48, SD = 1.14) and lived experience feedback (M = 3.35, SD = 1.11). CTE Administrators reportedly provided the most CTE specific feedback (M = 3.06, SD = 1.32). There was very little practical difference between teachers' perceptions of affirmative feedback with means ranging from M = 3.50 to M = 3.62. Additionally, when asked what type of feedback was more important to them, 68% of CTE teachers reported that feedback related to their teaching was more important to them than feedback about their CTE program. Table 3 reports the detailed results of teachers' perceptions of their various supervisors.

Table 3

Teachers' Perceptions of Supervisor Feedback (N = 126*)*

	All (n=126)		**Principals (n=98)**		**Instructional Coaches (n=8)**		**CTE Administrators (n=19)**	
Construct	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
General Feedback	3.27	1.04	3.27	0.99	3.48	1.14	3.11	1.23
CTE Specific Feedback	2.72	1.10	2.65	1.00	2.54	1.53	3.06	1.32
Affirmative Feedback	3.62	1.05	3.62	1.02	3.50	1.42	3.61	1.06
Lived Experience Feedback	3.00	0.87	2.90	0.77	3.35	1.11	3.24	1.07

Note. Instructional Feedback Perceptions - Teacher Scale utilized a 5-point scale with descriptors at 1 (*strongly disagree*), 2 (*disagree*), 3 (*neither agree/disagree*), 4 (*agree*), and 5 (*strongly agree*).

Objective 2: Association Between Teacher Characteristics and Their Perceptions of Supervisor Feedback. Objective two was to describe the association between teacher characteristics and their perceptions of supervisor feedback including years of teaching experience, the method of earning their license, and the size of their school. The teachers were broken into groups based upon their responses to the demographic questions in the instrument. Then, a series of one-way ANOVAs were

conducted to determine if the means of teachers' perceptions of supervisor feedback were different from one demographic group to another. There was a significant effect of years of experience F(5, 115) = 4.52, p = .000, ω2 = .17, and method of teaching certification F(3, 118) = 3.54, p = .017, ω2 = .08 on reported perceptions related to supervisors' prior teaching experience, resulting in a rejection of the null hypothesis. Additionally, there was a significant effect regarding the size of the school in which the teachers taught on the supervisor feedback they received directly related to CTE F(2, 119) = 3.76, p = .026, ω2 = .04, which also led us to reject the null hypothesis. The results of the ANOVA tests for Lived Experience Feedback and CTE Specific Feedback can be found in Table 4 and 5, respectively. There were no significant effects identified between teachers' characteristics and their reported perceptions of General Feedback or Affirmative Feedback, thus, the null hypothesis was accepted. Results of those ANOVA tests can be found in Table 6 and 7, respectively.

Table 4

*Association Between Teacher Demographic Characteristics and Lived Experience Feedback (*N = *103)*

Demographic Characteristic	*df*	*F*	η^2	ω^2	*p*
Years of Experience*	5, 115	4.52	.16	.19	.000
Size of School	2, 119	1.01	.02	.00	.368
Pathway to Licensure*	3, 118	3.54	.08	.08	.017

Note. Significant *p* values are indicated with an * ($p<.05$).

Table 5

*Association Between Teacher Demographic Characteristics and CTE Specific Feedback (*N = *103)*

Demographic Characteristic	*df*	*F*	η^2	ω^2	*p*
Years of Experience	5, 115	1.21	.05	.01	.307
Size of School*	2, 119	3.76	.06	.04	.026
Pathway to Licensure	3, 118	1.06	.03	.00	.367

Note. Significant *p* values are indicated with an * ($p<.05$).

Table 6
*Association Between Teacher Demographic Characteristics and General Feedback (*N = *103)*

Demographic Characteristic	*df*	*F*	η^2	ω^2	*p*
Years of Experience	5, 115	1.94	.01	-.00	.092
Size of School	2, 119	0.42	.01	.00	.661
Pathway to Licensure	3, 118	0.82	.02	.00	.484

Table 7
*Association Between Teacher Demographic Characteristics and Affirmative Feedback (*N = *103)*

Demographic Characteristic	*df*	*F*	η^2	ω^2	*p*
Years of Experience	5, 115	1.23	.05	.00	.299
Size of School	2, 119	2.19	.04	.00	.117
Pathway to Licensure	3, 118	0.46	.01	.00	.748

Interpretation of the omega-squared values (Tables 4, 5, 6, and 7) was guided by the recommendations of Kirk (1996, as cited in Kotrlik & Williams, 2003, p. 5). According to the omega-squared values, there is a small association between the size of the school and teachers' perceptions of CTE specific feedback. The computed value indicates that around 4% of variability in CTE specific feedback can be explained by the size of the school. There is a medium association between teachers' pathway to licensure and the lived experience feedback they receive. This association indicates that about 8% of the variability in lived experience feedback can be attributed to the pathway to licensure the teacher followed. The largest effect was the association between teachers' years of experience and the lived experience feedback they received. As much as 19% of the variability in lived experience feedback can be explained by the teachers' career stage.

Given the statistically significant omnibus ANOVA *F* tests, post hoc analyses were conducted using Gabriel's pairwise test procedure on all possible pairwise comparisons. The results of the post hoc analyses can be found in Tables 8 and 9. Pairwise comparisons revealed that teachers with 0 to 5 years of teaching experience reported significantly more lived experience feedback than teachers with 6 to 10 years of experience, 16 to 20 years of experience, and 26 or more years of experience. Additionally, post hoc tests identified that teachers who earned their licenses through an alternative pathway received significantly more lived experience feedback than teachers who earned their licenses through traditional pathways. The last significant contrast found that teachers working in schools with fewer than 30 students in a graduating class

received significantly more CTE specific feedback than teachers working in large schools with more than 100 students in a graduate class.

Table 8

Significant Pairwise Comparisons Between Groups Regarding CTE Specific Feedback

Comparison between groups					95% Confidence Interval	
Group 1	Group 2	Δ*M*	*SE*	*p*	*Lower bound*	*Upper bound*
Small School	Large School	.594	.224	.026*	.055	1.14

Note. Significant *p* values are indicated with an * ($p<.05$).

Table 9

Significant Pairwise Comparisons Between Groups Regarding Lived Experience Feedback

Comparison between groups					95% Confidence Interval	
Group 1	Group 2	Δ*M*	*SE*	*p*	*Lower bound*	*Upper bound*
0 to 5 years of experience	6 to 10 years of experience	.774	.218	.008*	.124	1.42
	16 to 20 years of experience	1.00	.252	.002*	.256	1.74
	26+ years of experience	.785	.243	.021*	.067	1.50
Alternatively Certified	Traditionally Certified	.637	.216	.013*	.092	1.18

Note. Significant *p* values are indicated with an * ($p<.05$).

Objective 3: Relationship between Teachers' Perceptions of Supervisor Feedback and Administrators' Prior Teaching Experiences. In order to determine the relationship between administrator experiences and teachers' perceptions of supervisor feedback, independent samples t-tests were conducted to see if teachers' perceptions were different when their supervisor's prior teaching experience was in a shared content area compared to supervisors whose prior teaching experience was not in the same content area. On average, teachers whose principals were also CTE teachers reported significantly more lived experience feedback (M = 3.60, SE = .28), than teachers whose principals were not former CTE teachers (M = 2.84, SE = .08). Additionally, the identified difference, 0.76, BCa 95% CI [.178, 1.35], was significant t(95) = 2.59, p = .011, which led to a rejection of the null hypothesis. Cohen's d was calculated to assess the effect size and was found to be 1.01, which is a considered a large effect size (Field,

2013). The null hypothesis was accepted for the other three comparisons, as there were no significant differences between the perceptions of feedback given by administrators with a CTE background and those without prior CTE teaching experience. Additional results of the independent samples t-tests can be found in Table 10.

Table 10
The Difference between Teachers' Perceptions of Feedback from Principals ($N = 97$)

	n	**M**	**SD**	**SE**	**t**	**df**	**Sig. (2-tailed)**
General Feedback					1.46	95	.148
Former CTE teacher	7	3.80	0.92	0.35			
Not former CTE teacher	90	3.23	0.99	0.10			
CTE Specific Feedback					1.33	94	.187
Former CTE teacher	7	3.14	0.94	0.36			
Not former CTE teacher	89	2.62	1.00	0.11			
Affirmative Feedback					1.12	95	.660
Former CTE teacher	7	4.05	0.64	0.24			
Not former CTE teacher	90	3.60	1.04	0.11			
Lived Experience Feedback					2.59	95	.011*
Former CTE teacher	7	3.60	0.74	0.28			
Not former CTE teacher	90	2.84	0.75	0.08			

Note. Significant p values are indicated with an * ($p<.05$).

Discussion and Conclusion

The purpose of this study was to examine teachers' perceptions of the feedback they receive from their supervisors. Because effective feedback is critical to teacher growth and development (Burch & Spillane, 2003; Drago-Severson & Blum-DeStefano, 2023), and little is known about how CTE teachers perceive the feedback they receive from their supervisors, this study is timely and relevant. Specifically, this study hoped to identify the content-specific needs of CTE teachers as they relate to the type of feedback they receive from their supervisors.

Lochmiller (2016) identified a disconnect between teachers' espoused wishes and their actual wants as they relate to the type of feedback they receive from their supervisors. In Lochmiller's study, teachers wanted feedback that acknowledged their content area and its unique aspects. However, when asked directly to describe helpful instructional feedback, the examples provided tended to be related to pedagogical recommendations rather than content-specific recommendations (Lochmiller, 2016). In this study, we explicitly asked teachers if they preferred to receive pedagogical feedback or content-specific feedback and 68% of CTE teachers indicated they preferred to receive pedagogical feedback, which aligns with Lochmiller's findings. However, Lochmiller (2016) reported that teachers in his study believed their administrators must have a

"substantial understanding of the content" (p. 91) in order for their feedback to be considered effective. Since the majority of supervisors reported in our study were principals without CTE teaching experience, and thus likely lacked "substantial understanding of the content," it is possible teachers preferred to receive general pedagogical feedback from their supervisors due to a perceived lack of competence or experience. Future research should work to tease out the differences in teachers' perceptions of supervisor feedback, especially as it relates to what teachers perceive as effective or ineffective content-specific feedback.

Teachers reported the only supervisors to provide significantly more lived experience feedback were principals who were former CTE teachers compared to principals who were not former CTE teachers. There were no significant differences between the types of feedback provided by instructional coaches who were or were not former CTE teachers or CTE administrators who were or were not former CTE teachers. Though the lived experiences feedback construct did not include any content-specific questions, it did include questions such as "I am given examples from their time as a classroom teacher," or "their feedback is more credible due to their teaching experience." Perhaps the types of lived experiences those principals were sharing resonated more with the CTE teachers because they themselves were CTE teachers at one point. These findings continue to indicate teachers' perceived competence may impact how they receive or value feedback from their supervisors.

The findings of this study indicate that small schools may place a higher priority on providing CTE specific feedback. Teachers working in smaller schools reported receiving more CTE-focused feedback than teachers working in larger schools with more than 100 students in a graduate class. This is not surprising since many small schools have just a few school leaders who juggle a wide range of responsibilities. It is likely the supervisor providing feedback has a fairly decent understanding of the expectations and requirements of a CTE teacher. A recommendation for practice for administrators in larger schools would be to ensure supervisors understand the broad and unique expectations of CTE teachers so appropriate feedback can be provided to those teachers. Furthermore, administrators and instructional supervisors across settings would be well advised to simply talk with the teachers they supervise as a place to begin to understand the nature of feedback their teachers find most meaningful.

Since the purpose of supervision is to provide ongoing support for teachers' professional learning and growth (Darling Hammond, 2013; Glickman et al, 2014), it is logical that teachers with 0 to 5 years of experience, as well as those who entered the profession via an alternative licensure pathway, reported receiving greater amounts of lived experience feedback than more experienced teachers and teachers who were trained to enter the profession via a traditional teacher licensure program. Though this study focused on CTE teachers, it is important to remember that the purpose of supervision is still to provide support for teachers' professional learning and growth, which is likely needed the most early in one's career as an educator, and especially when entering the profession via an alternative pathway. A recommendation for future research would be to compare the needs of CTE teachers to the needs of other teachers to see if the perceptions of lived experience feedback differs from one content area to another. In addition,

qualitative studies of CTE teachers' experiences would provide a richer and more nuanced understanding of the meaning and efficacy of the instructional feedback they receive.

Instructional feedback has been determined to be an essential element of instructional leadership and supervision processes (DiPaola & Hoy, 2014; Goldring et al., 2015). Principals, however, are challenged when tasked to provide consistent, timely, and meaningful instructional feedback (Blase & Blase, 2003). These challenges are further complicated when supervising teachers of content unfamiliar to the supervisor. Despite these challenges, "administrators must be able to know strong instruction when they see it, to encourage it when they don't, and to set the conditions for continuous academic learning among their professional staffs" (Stein & Nelson, 2003, p. 424). Future studies are needed to explore *supervisors'* perspectives of and experiences in providing instructional feedback to CTE teachers. Doing so holds the potential to better inform: (1) the preparation of principals and other instructional supervisors and, (2) professional development, mentoring, and coaching for practicing leaders.

Opportunities for future research include the utilization of the IFP-TS to further validate the scale among a range of populations. Though the Cronbach's alpha levels are very good to excellent, the validation of the instrument among a much larger sample of teachers would be beneficial in further establishing the reliability and validity of the instrument. The IFP-TS is intended to be used with teachers, however, simple revisions of the instrument may lead to possible use in other contexts, such as with supervisors, administrators, or preservice teachers. We encourage other researchers to utilize the IFP-TS in order to refine and improve the scale.

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