West Virginia Common Metrics
2018 Supervisor Survey

Concord University Report

January 2019

Prepared by

Stacy Duffield, Ph.D.
Jingjun Zhao, M.S.
North Dakota State University

With Support from

Keri Ferro, Ed.D.
Division of Academic Affairs
West Virginia Higher Education Policy Commission
West Virginia Council for Community and Technical College Education

Introduction
The Network for Excellence in Teaching (NExT), founded in 2010, is a partnership of 14 institutions of higher education (IHEs) and the Bush Foundation. NExT collaborated to develop a set of common surveys to support teacher preparation programs in measuring the effectiveness of their programs. NExT shared the instruments with other teacher preparation programs, inviting them to contribute their data to an aggregate data set that will be used in future instrument analyses to strengthen the instruments and ensure their validity and reliability across diverse respondent pools. The surveys include the following:

> 1.) **Exit Survey**—administered to teacher candidates near the completion of student teaching
> 2.) **Transition to Teaching Survey (TTS)**—administered to program completers in the spring following the academic year of graduation
> 3.) **Supervisor Survey**—administered in the spring following the academic year of graduation to employers of program completers who are teaching

The Exit, Transition to Teaching, and Supervisor Surveys are all aligned with one another and the InTASC Standards. The InTASC Standards are used by CAEP, the nation's largest accreditor of teacher preparation programs. Because the surveys are also aligned with one another, items and sections are able to be compared across surveys. The Exit Survey, Transition to Teaching Survey and Supervisor Survey were revised in 2016 in response to a psychometric analysis. The most recent validity and reliability analysis can be found in Appendix A.

This Report
The Supervisor Survey asks those who supervise first-year teachers to assess the novices' readiness for the teaching profession. The survey asks supervisors to assess the quality of completers' instructional practices, abilities to work with diverse learners, abilities to establish positive classroom environments, and levels of professionalism. The survey is administered to direct supervisors of teacher education graduates employed in schools as teachers approximately one year after the completers completed their preparation programs. The ratings are on a 4-point scale and include the following descriptors: Agree, Tend to Agree, Tend to Disagree, and Disagree. Quantitative data for the institution are presented below in tabular format.

Copyright and Permission for Use
The NExT institutions hold the copyright on these surveys. Institutions are asked not to alter the surveys; however, items may be added to the end the surveys for individual institutional use. Appendix B presents guidelines for writing about the surveys and data.

Accreditation and Program Approval
The surveys support accreditation and program approval at both the state and national level through their alignment with both the InTASC and CAEP accreditation standards. The Supervisor Survey is strong evidence for CAEP Standard 4.3, and provides evidence of stakeholder input on candidate preparation and program evaluation, which are required in CAEP Standards 2.1 and 5.5.

Survey Administration and Response Rate
The 2018 Supervisor Survey was administered to supervisors of first-year teachers who completed the institution's educator preparation program. Links for the survey were send through email to 89 supervisors of first-year teachers who were prepared by Concord University. The Supervisor Survey response rate for the institution was 33% (29 out of 89).

Using this Report
Findings from this Supervisor Survey can be compared to future cohorts in order to understand how shifts in IHE programs' coursework and clinical experiences affect candidates' perceptions of and satisfaction with their teacher education programs. Findings from the Transition to Teaching Survey, administered one year after graduation, may also shed light on whether completers' perceptions of and satisfaction with their preparedness at graduation align with perceptions of their instructional practice as student teachers.

Findings
Findings from this survey should be used in conjunction with responses from the Exit Survey and TTS to gain a better understanding of the level of preparedness of completers. The sections below provide more detailed analyses of the findings from the Supervisor Survey.

Survey Section A
Section A of the survey asks supervisors to confirm the employment status of completers (e.g., full- or part-time teaching). This section also asks supervisors how new teachers in their building are evaluated on various metrics of performance, including teacher practice, student achievement, and student engagement (see tables 3-8). The NExT Supervisor Survey is one of many metrics or strategies used to assess the effectiveness of new teachers; schools also use their own evaluation methods, which are not directly tied to the information collected with this survey.

Survey Section B
Section B of the survey asks supervisors to rate first-year teachers' performance on instructional practice, ability to meet the needs of diverse learners, creating a learning environment, and professionalism (see tables 9-16). Supervisors were asked to respond using the following scale: does not apply; disagree; tend to disagree; tend to agree; and agree.

Notes:

In some instances, Respondents do not complete a follow-up question after indicating a response to branching item (i.e., "if yes…," "if no…").

For any "mark all that apply" items, the total percentage may exceed 100 and the total # may exceed the number of Respondents.

In some instances, the number of descriptions of "other" may not match the number of Respondents that selected "other."

Number of responses is represented by a "#" symbol in the tables below.

Due to rounding to the nearest hundredth, the percent column may not add up to 100.

APPENDIX A: TABULATED RESPONSES FOR ENTRY SURVEY

Table 1. Response Rate

	Number of reachable supervisors[a]	Number of appropriate completed Supervisor Surveys[b]	Response rate of supervisors completing a survey, based on number of reachable supervisors[c]
2018	89	29	33%

[a]The reachable supervisors reflect the number of teaching graduates for which a supervisor could be identified and had valid contact information.
[b]The *appropriate* completions reflects the completed surveys for which the graduate met the definition of teacher (full-time teacher, part-time teacher at least 41% of the school year, or "other" in which the title met the definition of teacher). Substitute teachers, paraprofessionals, and part-time teachers employed 40% or less were dropped from the survey after item A2.
[c]This percentage is the response rate for the supervisors that were appropriate and reachable.

Note: For any "mark all that apply" items, the total percentage may exceed 100 and the total # may exceed the number of respondents.

In some instances, the number of descriptions of "other" may not match the number of respondents that selected "other."

"Number of responses" is represented by a "#" symbol in the tables below.

Due to rounding to the nearest tenth, the percent column may not add up to 100.

Table 2.   Which communication method *most* prompted you to complete this survey today? (*Select one only.*)

	n = 25	
	#	Percent
Email	4	16.00
Mailing	0	0.00
Telephone	0	0.00
Text message	0	0.00
Social media	0	0.00
Other	21	84.00

PART A. BACKGROUND

Table 3.   Which of the following best describes the individual's employment situation?

	n = 29	
	#	Percent
Full-time teacher	26	89.66
Part-time teacher	2	6.90
Other	1	3.45

Note. Data from item A2. Any respondents that indicated the first-year teacher was employed in a position other than a full-time or part-time teacher did not complete the remainder of the survey; therefore, short-term substitute, long-term substitute, and paraprofessional responses are not in this table. Respondents that indicated "other" were able to complete the survey and then their description was reviewed to determine if the teaching status was eligible for the survey.

Table 4. **If this survey is being completed for a part-time teacher, what percentage of time is this teacher employed in your district?**

	n = 2	
	#	Percent
41-60%	1	50.00
61-80%	1	50.00
81% or more	0	0.00

Note. Data from item A2a. Includes respondents who answered "Part-time teacher" to the item in Table 3. Survey data indicating "20% or less" or "21-40%" were dropped because the graduate did not meet the definition of teacher.

Table 5. **As this person's evaluator, which of the following best describes your position?** (*Select one only*.)

	n = 29	
	#	Percent
Principal	25	86.21
Assistant principal	4	13.79
Department chair	0	0.00
Other[a]	0	0.00

Note. Data from item A3. The "does not apply" responses were removed from the frequency counts.
[a]Other responses from supervisors of graduates included:

Table 6.   How are new teachers in your building evaluated in each of these areas? *Mark all that apply*.

Teacher Practice	n = 29	
	#	Percent of Cases
Principal and/or assistant principal observations	29	100.00
Coach and/or mentor observations	10	34.48
Peer and/or self observations	6	20.69
Other[a]	2	6.90

Note. Data from item A4. The "does not apply" responses were removed from the frequency counts.
[a]Other responses from supervisors of graduates included:
  • Elementary Supervisors
  • County Supervisory

Table 7.   How are new teachers in your building evaluated in each of these areas? *Mark all that apply*.

Student Achievement	n = 27	
	#	Percent of Cases
Scores on statewide tests	15	55.56
Scores on districtwide tests	11	40.74
Performance on student learning objectives	17	62.96
Value added scores	0	0.00
Other[a]	4	14.81

Note. Data from item A5. The "does not apply" responses were removed from the frequency counts.

[a]Other responses from supervisors of graduates included:
 • STAR Reading and STAR Math Assessments
 • STAR Reading and STAR Math Assessments
 • ELRS data collection, teacher anectodal notes
 • Fitness gram

Table 8.   How are new teachers in your building evaluated in each of these areas? *Mark all that apply.*

Student Engagement	n = 29	
	#	Percent of Cases
Principal and/or assistant principal observations	29	100.00
Coach and/or mentor observations	11	37.93
Peer and/or self observations	6	20.69
Student engagement surveys	1	3.45
Other[a]	2	6.90

Note. Data from item A6. The "does not apply" responses were removed from the frequency counts.

[a]Other responses from supervisors of graduates included:
  • Elementary Supervisor
  • County Supervisor

PART B. NEW TEACHER PERFORMANCE

Table 9.   New Teacher Performance: Instructional Practice. To what extent do you agree or disagree that this first-year teacher does the following?

	Total Respondents	Disagree		Tend to Disagree		Tend to Agree		Agree	
	n	#	%	#	%	#	%	#	%
Effectively teaches the subject matter in his/her licensure area.	27	0	0.00	2	7.41	7	25.93	18	66.67
Selects instructional strategies to align with curriculum standards.	27	0	0.00	4	14.81	5	18.52	18	66.67
Designs activities where students engage with subject matter from a variety of perspectives.	27	1	3.70	3	11.11	8	29.63	15	55.56
Accounts for students' prior knowledge or experiences in instructional planning.	27	0	0.00	1	3.70	11	40.74	15	55.56
Designs long-range instructional plans that meet curricular goals.	27	1	3.70	2	7.41	11	40.74	13	48.15
Regularly adjusts instructional plans to meet students' needs.	27	0	0.00	4	14.81	10	37.04	13	48.15
Plans lessons with clear learning objectives/goals in mind.	27	0	0.00	3	11.11	8	29.63	16	59.26
Designs and modifies assessments to match learning objectives.	26	0	0.00	3	11.54	12	46.15	11	42.31
Provides students with meaningful feedback to guide next steps in learning.	27	0	0.00	2	7.41	12	44.44	13	48.15
Engages students in self-assessment strategies.	27	1	3.70	4	14.81	10	37.04	12	44.44
Uses formative and summative assessments to inform instructional practice.	26	0	0.00	2	7.69	11	42.31	13	50.00

	Total Respondents	Disagree		Tend to Disagree		Tend to Agree		Agree	
	n	#	%	#	%	#	%	#	%
Identifies issues of reliability and validity in assessment.	25	1	4.00	4	16.00	9	36.00	11	44.00
Analyzes multiple and appropriate types of assessment data to identify student learning needs.	26	1	3.85	2	7.69	11	42.31	12	46.15
Differentiates assessment for all learners.	26	1	3.85	4	15.38	10	38.46	11	42.31
Uses digital and interactive technologies to achieve instructional learning goals.	25	0	0.00	3	12.00	7	28.00	15	60.00
Engages students in using a range of technology tools to achieve learning goals.	26	2	7.69	3	11.54	7	26.92	14	53.85
Helps students develop critical thinking processes.	27	0	0.00	5	18.52	10	37.04	12	44.44
Helps students develop skills to solve complex problems.	26	1	3.85	3	11.54	10	38.46	12	46.15
Makes interdisciplinary connections among core subjects.	26	0	0.00	4	15.38	10	38.46	12	46.15
Knows where and how to access resources to build global awareness and understanding.	26	0	0.00	6	23.08	8	30.77	12	46.15
Helps students analyze multiple sources of evidence to draw sound conclusions.	25	0	0.00	5	20.00	10	40.00	10	40.00

Note. Data from items B1a-t. "Unable to Respond" responses were excluded from the frequency calculation.

Table 10. New Teacher Performance: Instructional Practice. To what extent do you agree or disagree that this first-year teacher does the following?

	#	Mean[a]	SD
Effectively teaches the subject matter in his/her licensure area.	27	3.59	0.62
Selects instructional strategies to align with curriculum standards.	27	3.52	0.74
Designs activities where students engage with subject matter from a variety of perspectives.	27	3.37	0.82
Accounts for students' prior knowledge or experiences in instructional planning.	27	3.52	0.57
Designs long-range instructional plans that meet curricular goals.	27	3.33	0.77
Regularly adjusts instructional plans to meet students' needs.	27	3.33	0.72
Plans lessons with clear learning objectives/goals in mind.	27	3.48	0.69
Designs and modifies assessments to match learning objectives.	26	3.31	0.67
Provides students with meaningful feedback to guide next steps in learning.	27	3.41	0.62
Engages students in self-assessment strategies.	27	3.22	0.83
Uses formative and summative assessments to inform instructional practice.	26	3.42	0.63
Identifies issues of reliability and validity in assessment.	25	3.20	0.85
Analyzes multiple and appropriate types of assessment data to identify student learning needs.	26	3.31	0.77
Differentiates assessment for all learners	26	3.19	0.83
Uses digital and interactive technologies to achieve instructional goals.	25	3.48	0.70

	#	Mean[a]	SD
Engages students in using a range of technology tools to achieve learning goals.	26	3.27	0.94
Helps students develop critical thinking processes.	27	3.26	0.75
Helps students develop skills to solve complex problems.	26	3.27	0.81
Makes interdisciplinary connections among core subjects.	26	3.31	0.72
Knows where and how to access resources to build global awareness and understanding.	26	3.23	0.80
Helps students analyze multiple sources of evidence to draw sound conclusions.	25	3.20	0.75

Note. Data from items B1a-t. Scale: 1 = Disagree; 2 = Tend to Disagree; 3 = Tend to Agree; 4 = Agree.
[a]"Unable to Respond" responses were excluded from the mean calculation.

Table 11. New Teacher Performance: Diverse Learners. To what extent do you agree or disagree that this first-year teacher does the following?

	Total Respondents	Disagree		Tend to Disagree		Tend to Agree		Agree	
	n	#	%	#	%	#	%	#	%
Effectively teaches students from culturally and ethnically diverse backgrounds and communities.	25	0	0.00	2	8.00	10	40.00	13	52.00
Differentiates instruction for a variety of learning needs.	27	0	0.00	5	18.52	7	25.93	15	55.56
Differentiates for students at varied developmental levels.	27	0	0.00	4	14.81	9	33.33	14	51.85
Differentiates to meet the needs of students from various socioeconomic backgrounds.	27	0	0.00	3	11.11	10	37.04	14	51.85
Differentiates instruction for students with IEPs and 504 plans.	25	0	0.00	2	8.00	11	44.00	12	48.00
Differentiates instruction for students with mental health needs.	25	0	0.00	7	28.00	8	32.00	10	40.00
Differentiates instruction for gifted and talented students.	21	0	0.00	3	14.29	10	47.62	8	38.10
Differentiates instruction for English-language learners.	15	0	0.00	1	6.67	4	26.67	10	66.67
Accesses resources to foster learning for students with diverse needs.	27	0	0.00	4	14.81	11	40.74	12	44.44

Note. Data from items B2a-j. "Unable to Respond" responses were excluded from the frequency calculation.

Table 12. New Teacher Performance: Diverse Learners. To what extent do you agree or disagree that this first-year teacher does the following?

	#	Mean[a]	SD
Effectively teaches students from culturally and ethnically diverse backgrounds and communities.	25	3.44	0.64
Differentiates instruction for a variety of learning needs.	27	3.37	0.78
Differentiates for students at varied developmental levels.	27	3.37	0.73
Differentiates to meet the needs of students from various socioeconomic backgrounds.	27	3.41	0.68
Differentiates instruction for students with IEPs and 504 plans.	25	3.40	0.63
Differentiates instruction for students with mental health needs.	25	3.12	0.82
Differentiates instruction for gifted and talented students.	21	3.24	0.68
Differentiates instruction for English-language learners.	15	3.60	0.61
Accesses resources to foster learning for students with diverse needs.	27	3.30	0.71

Note. Data from items B2a-j. Scale: 1 = Disagree; 2 = Tend to Disagree; 3 = Tend to Agree; 4 = Agree.
[a]"Unable to Respond" responses were excluded from the mean calculation.

Table 13. New Teacher Performance: Learning Environment. To what extent do you agree or disagree that this first-year teacher does the following?

	Total Respondents	Disagree		Tend to Disagree		Tend to Agree		Agree	
	n	#	%	#	%	#	%	#	%
Clearly communicates expectations for appropriate student behavior.	27	1	3.70	6	22.22	7	25.93	13	48.15
Uses effective communication skills and strategies to convey ideas and information to students.	27	0	0.00	3	11.11	10	37.04	14	51.85
Connects core content to students' real-life experiences.	27	0	0.00	2	7.41	13	48.15	12	44.44
Helps students work together to achieve learning goals.	27	0	0.00	3	11.11	11	40.74	13	48.15
Develops and maintains a classroom environment that promotes student engagement.	27	1	3.70	6	22.22	7	25.93	13	48.15
Responds appropriately to student behavior.	27	1	3.70	7	25.93	8	29.63	11	40.74
Creates a learning environment in which differences such as race, culture, gender, sexual orientation, and language are respected.	27	1	3.70	1	3.70	10	37.04	15	55.56
Helps students regulate their own behavior.	27	1	3.70	5	18.52	9	33.33	12	44.44
Effectively organizes the physical environment of the classroom for instruction.	27	1	3.70	1	3.70	12	44.44	13	48.15

Note. Data from items B3a-i. "Unable to Respond" responses were excluded from the frequency calculation.

Table 14. New Teacher Performance: Learning Environment. To what extent do you agree or disagree that this first-year teacher does the following?

	#	Mean[a]	SD
Clearly communicates expectations for appropriate student behavior.	27	3.19	0.90
Uses effective communication skills and strategies to convey ideas and information to students.	27	3.41	0.68
Connects core content to students' real-life experiences.	27	3.37	0.62
Helps students work together to achieve learning goals.	27	3.37	0.67
Develops and maintains a classroom environment that promotes student engagement.	27	3.19	0.90
Responds appropriately to student behavior.	27	3.07	0.90
Creates a learning environment in which differences such as race, culture, gender, sexual orientation, and language are respected.	27	3.44	0.74
Helps students regulate their own behavior.	27	3.19	0.86
Effectively organizes the physical environment of the classroom for instruction.	27	3.37	0.73

Note. Data from items B3a-i. Scale: 1 = Disagree; 2 = Tend to Disagree; 3 = Tend to Agree; 4 = Agree.
[a]"Unable to Respond" responses were excluded from the mean calculation.

Table 15. New Teacher Performance: Professionalism. To what extent do you agree or disagree that this first-year teacher does the following?

	Total Respondents	Disagree		Tend to Disagree		Tend to Agree		Agree	
	n	#	%	#	%	#	%	#	%
Seeks out learning opportunities that align with professional development goals.	26	0	0.00	5	19.23	9	34.62	12	46.15
Collaborates with parents and guardians to support student learning.	27	0	0.00	5	18.52	9	33.33	13	48.15
Collaborates with teaching colleagues to improve student performance.	27	0	0.00	2	7.41	11	40.74	14	51.85
Uses colleague feedback to support development as a teacher.	27	0	0.00	3	11.11	11	40.74	13	48.15
Upholds laws related to student rights and teacher responsibility.	27	2	7.41	0	0.00	10	37.04	15	55.56
Acts as an advocate for all students.	27	0	0.00	4	14.81	8	29.63	15	55.56

Note. Data from items B4a-f. "Unable to Respond" responses were excluded from the frequency calculation.

Table. 16 New Teacher Performance: Professionalism. To what extent do you agree or disagree that this first-year teacher does the following?

	#	Mean[a]	SD
Seeks out learning opportunities that align with professional development goals.	26	3.27	0.76
Collaborates with parents and guardians to support student learning.	27	3.30	0.76
Collaborates with teaching colleagues to improve student performance.	27	3.44	0.63
Uses colleague feedback to support development as a teacher.	27	3.37	0.67
Upholds laws related to student rights and teacher responsibility.	27	3.41	0.83
Acts as an advocate for all students.	27	3.41	0.73

Note. Data from items B4a-f. Scale: 1 = Disagree; 2 = Tend to Disagree; 3 = Tend to Agree; 4 = Agree.
[a]"Unable to Respond" responses were excluded from the mean calculation.

Appendix A: 2017 Supervisor Survey Super-Aggregate Exploratory Factor Analysis

An exploratory factor analysis was performed to test the validity and reliability of the 2017 Supervisor Survey super-aggregate data from Part B Sections (B1-B4). The super-aggregate data set includes the 14 Network for Excellence in Teaching (NExT) institutions as well as the affiliate institutions that also administer the Common Metrics Surveys. In general, an exploratory factor analysis (EFA) can be used when responses of several measures have been obtained and intend to identify the number and nature of the underlying factors that are responsible for covariation in the data set. It helps to make decisions about which survey items should be retained, revised, or eliminated from each section based on how well they contribute to the overall understanding of the construct.

The analysis was performed using SAS 9.4. Correlation Matrix and reliability alpha were obtained by PROC CORR, and the factor analysis was conducted using PROC FACTOR procedure. The Principal Axis factor analysis with varimax rotation was used to compute the factors and evaluate the underlying factors of the items. Before the factory analysis was performed, the assumptions such as determinant, Kaiser-Mayer-Olkin (KMO), and Bartlett were tested. The determinant suggests whether items are too close to run the analysis; KMO ensures enough survey items are predicted by each factor; the Bartlett tests whether the items have sufficient correlations to perform the factor analysis. All the assumption tests were conducted in R program.

Cross-loading items were checked to determine if there are variables that are poor factor indicators. To identify the cross-loading items, we examined the items with differences in cross loadings less than 0.1.

Out of the total number of 741 respondents, 499 were identified as missing values. Considering the large portion of the missing data, the listwise deletion, which removes all data for a case that has one or more missing values, was not the best option to use. To address the missing data, the pairwise deletion method was employed when conducting the factor analysis. The pairwise deletion attempts to minimize the loss that occurs in the listwise deletion by avoiding completely dropping a respondent due to a missing response.

Result Summary

Test of Assumptions

KMO and Bartlett tests of assumptions were both met for Part B of the Supervisor Survey. However, the determinant was lower than ideal, which indicates potential problems with collinearity. That means some variables are highly correlated and are likely redundant or repetitive.

Part B: New Teacher Performance

In Part B, all 45 items were included in conducting the factor analysis. First, the correlation matrix between the items was calculated, which indicates how the items are related to each other. The large value of the correlation coefficient indicates the items are highly correlated with each other. According to Cohen (1988), correlation coefficients lower than .3 represent a weak correlation between two variables, coefficients between .3 and .49 represent a moderate correlation, and coefficients range from .5 to 1.0 are considered as strong correlations. Using these guidelines, there are no weak correlations between Part B items. All items ranged from 0.332 to 0.865 which indicates all items are from moderately to strongly correlation with each other. In addition, items with strong correlations are closely related with each other and classified highly into one factor. While those with low correlations are unlikely to load on the same factor. Table 1 shows the 10 most highly correlated items. Item B3e_engag and B3f_respnd have strong correlations with three items within their own Section (B3).

Table 1. The 10 Most Highly Correlated Items in Part B

Items	Correlation Coefficient
B2b_diff and B2c_devel	0.865
B3h_reg and B3f_respnd	0.862
B2c_devel and B2d_socio	0.841
B3a_bhvr and B3f_respnd	0.831
B3a_bhvr and B3e_engag	0.829
B1p_criti and B1q_complx	0.826
B3e_engag and B3f_respnd	0.825
B2e_IEP and B2f_mntl	0.823
B1a_area and B1b_goals	0.816
B3d_work and B3e_engag	0.812

For the sample (*n*=242), the mean response for the 45 items in Part B Section ranged from 3.35 to 3.75. The frequency table shows the majority of respondents (around 90%) selected 3 or 4, repressing *tend to agree* or *agree* on the 4-point scale.

A factor analysis was conducted based on the pairwise deletion method with minimum number of 480 responses that were included in the analysis. Four factors were retained for SS 2017 Super-Aggregate data. Table 2 shows the four factors and the items listed in each factor.

Table 2 Part B: New Teacher Performance Factors

Factor	Items	Primary Topic
1	B1a_area, B1b_goals, B1c_persp, B1d_prior, B1e_long, B1f_adjust, B1g_clear, B1h_match, B1i_fdbk, B1j_self, B1k_form, B1l_reli, B1m_data, B1mm_diff, B1p_criti, B1q_complx, B1r_inter, B1s_global, and B1t_concl	Instructional Practice
2	B2a_divrs, B2b_diff, B2c_devel, B2d_socio, B2e_IEP, B2f_mntl, B2g_gt, B2h_ELL, and B2i_fostr	Diverse Learners
3	B3a_bhvr, B3b_comm, B3c_real, B3d_coop, B3e_engag, B3f_respnd, B3g_respct, B3h_cntrl, and B3i_org	Learning Environment
4	B4a_pd, B4c_prnt, B4d_collab, B4e_fdbk, B4f_legal, B4g_advo, B1n_digi, and B1o_range	Professionalism

After rotation, the factors accounted for about 93% of the variance. Factor 1, Instructional Practice, accounted for 31% of the variance; Factor 2, Diverse Learners, accounted for 24%; Factor 3, Learning Environment, accounted for 23%; Factor 4, Diverse Learners Professionalism, accounted for 15%.

Table 3 presents the factor loading matrix with circles indicating items that loaded on the four factors respectively.

Table 3. Part B: "New Teacher Performance" Factor Loading Matrix

	Factor 1	Factor 2	Factor 3	Factor 4
B1l_reli	0.72			
B1j_self	0.71			
B1k_form	0.69			
B1m_data	0.69			
B1e_long	0.68			
B1b_goals	0.67		0.45	
B1h_match	0.67			
B1g_clear	0.65			
B1i_fdbk	0.65			
B1p_criti	0.65			
B1c_persp	0.64			
B1d_prior	0.60			
B1q_complx	0.58	0.42		
B1a_area	0.57		0.45	
B1f_adjust	0.57		0.43	
B1t_concl	0.53	0.41		
B1mm_diff	0.51			
B1r_inter	0.48	0.44		
B1s_global	0.45	0.43		0.44
B2d_socio		0.73		
B2f_mntl		0.73		
B2h_ELL	0.41	0.71		
B2g_gt		0.70		
B2c_devel		0.68		
B2e_IEP		0.67		
B2b_diff		0.66		
B2i_fostr		0.59		
B2a_divrs		0.52	0.42	

	Factor 1	Factor 2	Factor 3	Factor 4
B3f_respnd			0.74	
B3a_bhvr			0.71	
B3e_engag			0.70	
B3h_cntrl		0.40	0.70	
B3b_comm			0.64	
B3i_org			0.62	
B3g_respct			0.57	
B3d_coop	0.43		0.56	
B3c_real	0.40		0.46	
B4e_fdbk				0.60
B4a_pd				0.57
B4d_collab				0.57
B4f_legal			0.43	0.50
B4c_prnt			0.42	0.48
B4g_advo			0.44	0.45
B1n_digi				0.57
B1o_range				0.54

Note: Some low factor loadings (less than 0.4) were removed to aid the interpretation of this table.

Section B1: *Instructional Practice*

All B1 items loaded onto Factor 1 (Instructional Practice) except items B1n_digi and B1o_range, which loaded onto Factor 4 (Diverse Learners Professionalism), suggesting these two items may represent a more similar construct with Section B4 Diverse Learner Professionalism than with Section B1 Instructional Practice. As shown in Table 3 above, the cross loading of items in B1 occurred with Factor 2 and Factor 3 includes Items B1r_inter and B1s_global. These two cross-loaded items in Factor 1 may contribute to the ambiguous loading. If an item has significant loading for more than one factor, it is usually suggested to exclude from the factor-base scale, depending on the survey design purpose.

Section B2: *Diverse Learners*

All B2 (Diverse Learners) items loaded onto Factor 2, which indicates potential possibility to create one Diverse Learners scale for further analysis. No cross loading issue was observed in this section.

Section B3: *Learning Environment*
All B3 (Learning Environment) items loaded onto Factor 3, which indicates the potential to create one Learning Environment scale for further analysis. Items B3c_real cross loaded onto Factor 1, indicating the concept of designing Learning Environment could also represent Instructional Practice, which may have led to varying respondent understanding of this item.

Section B4: *Professionalism*
All B4 (Professionalism) items loaded onto Factor 4, which indicates the potential to create one Professionalism scale for further analysis. Items B4c_prnt, B4f_legal, and B4g_advo cross loaded onto Factor 3.

Instrument Reliability
The reliability of the scales suggested by the factor loadings was assessed using Cronbach's alpha. Table 4 shows the reliability analysis for overall items and individual factors. As generally suggested, alpha coefficient greater than 0.7 indicates good internal consistency. In our analysis, the alpha coefficients are all greater than 0.9.

Table 4 Reliability Analysis

Part	Scale	Cronbach's Alpha
	Part B: New Teacher Performance -- Overall	0.98
B	Instructional Practice (Factor 1)	0.96
	Diverse Learners (Factor 2)	0.96
	Learning Environment (Factor 3)	0.96
	Professionalism (Factor 4)	0.91

The alpha coefficients, all greater than .70, indicate good internal consistency for these constructs. But if the alpha coefficient is higher than 0.9, some items might be repetitive and could be deleted. The overall coefficient alpha in Part B is 0.98, which is too high, indicating some repetitive items exist. The reduced alpha of .96 for the Instructional Practice suggests that some selective deletions in this section may make the instrument less repetitive overall.
The factor analysis conducted suggests that the scale identified by the Supervisor Survey data have relatively good reliability as measure of these constructs. As discussed in the previous sections, revise and eliminate some items could potentially increase the validity and reliability of the instrument. But all possible revisions depend on the purpose of the report.

Conclusion

1. Four factors retained in Part B, representing four constructs in the Supervisor Survey Super-Aggregate data.

    Factor 1: Section B1, Instructional Practice
    Factor 2: Section B2, Diverse Learners
    Factor 3: Section B3, Learning Environment
    Factor 4: Section B4, Professionalism

2. All B1 items loaded onto Factor 1 except items B1n_digi and B1o_range, which loaded onto Factor 4; All B2 (Diverse Learners) items loaded onto Factor 2; All B3 (Learning Environment) items loaded onto Factor 3; All B4 items loaded onto Factor 4.

3. Seven out of 45 (16%) items had a cross loading with difference less than 0.1. These 7 items seem problematic because they are not good indicators of the construct they are intended to measure. Usually, it is suggested to remove from the factor analysis, but it depends on the survey design purpose.

4. Based on the 4-point response scale, the mean response for overall 45 items ranged from 3.35 to 3.75.

5. Alpha scores for all factors were higher than 0.9 indicating adequate reliability. However, three of four factors had alpha coefficients higher than 0.95, indicating some items may be repetitive and redundant.

Prepared by
Anqing Zhang, North Dakota State University
Mark Baron, Wayne State College
Stacy Duffield, North Dakota State University

NExT
Network for Excellence in Teaching™

Appendix B: Guidelines for Writing about Common Metrics Data and Surveys

The NExT Common Metrics group supports excellence in teacher preparation through research and use of valid and reliable instruments for program improvement. The Common Metrics data offer numerous opportunities to researchers, and we are excited to promote this work. The following list provides guidelines for appropriate reference and citations when referring to the data and surveys. These guidelines apply to both formal and informal writing about Common Metrics data and surveys.

- The surveys may not be presented in full or part (i.e., the survey may not be provided in the appendices or a list of survey items in a results table).

- Survey items may not be presented word-for-word; rather, the topic of the item can be presented (e.g., instructing English learners or providing feedback). Sharing of specific items is a violation of copyright.

- When reporting about single items, make clear that the items were extracted from an instrument that is meant to be used in whole and that the items are part of factors that include multiple items. Validity and reliability data only apply to intact factors and surveys.

- Reporting should focus on outcomes. We recommend that results are presented by factor. (See factor analysis reports.)

- Please note that while the data belong to the institution, the surveys are owned by NExT. NExT surveys should be cited in formal and informal writing and presentations. This is the citation format recommended by NExT complying with APA guidelines:

Network for Excellence in Teaching (NExT, 2016). *NExT Common Metrics Entry Survey*. NExT: Author.

Network for Excellence in Teaching (NExT, 2016). *NExT Common Metrics Exit Survey*. NExT: Author.

Network for Excellence in Teaching (NExT, 2016). *NExT Common Metrics Transition to Teaching Survey*. NExT: Author.

Network for Excellence in Teaching (NExT, 2016). *NExT Common Metrics Supervisor Survey*. NExT: Author.