Professional Development Study Codebook

Section 1. Instructions

Science Inquiry Version of Survey Instrument

Please reflect on your BEST professional development experience since June of 2015 pertaining to *science inquiry instruction. The inquiry process involves posing questions, developing hypotheses, conducting investigations, using logical thinking and reasoning to interpret data and draw conclusions, and communicating results.*

Please note that this experience could refer to a single professional development event or events conducted as a series. In addressing the questions below, please refer to all events associated with this professional development experience.

Mathematics Version of Survey Instrument

Please reflect on your BEST professional development experience since June of 2015 pertaining to *mathematics instruction.*

Please note that this experience could refer to a single professional development event or events conducted as a series. In addressing the questions below, please refer to all events associated with this professional development experience.

RTI-based Literacy Version of Survey Instrument

Please reflect on your BEST professional development experience since June of 2015 pertaining to *reading instruction / intervention practices.*

Please note that this experience could refer to a single professional development event or events conducted as a series. In addressing the questions below, please refer to all events associated with this professional development experience.

Section 2. Variable Definitions & Code Labels

content **content version of survey instrument completed**

1 = Science Inquiry
2 = Mathematics
3 = RTI-based Literacy

rurality **identification of teacher's school as urban, town, rural**

1 = Urban
2 = Town
3 = Rural

locale **urbancentric locale, as coded by the NCES (detailed version of "rurality" variable)**

Nominal Variable: values provided in data cells

students **total number of students enrolled at participant's school, as reported by NCES**

meals **total number of students in school eligible to receive free/reduced meals, as reported by NCES**

gender **participant's self-identified gender**

0 = Female
1 = Male

birthyr **year of birth, as reported by participant**

race **self-identification of race (data set includes only data for groups large enough to allow full analyses)**

1 = White, not Hispanic
2 = Black or African-American, not Hispanic

grade **grade level taught during current school year (or, grade level with which spend most of time)**

0 = Kindergarten
1 = 1st Grade
2 = 2nd Grade
3 = 3rd Grade
4 = 4th Grade
5 = 5th Grade

lastyr **Did you teach same level last year**

0 = No
1 = Yes

cert1 **Has State Certification in-Emergency, Provisional, or Temporary**

0 = No
1 = Yes

cert2 **Has State Certification in- Elementary**

0 = No
1 = Yes

cert3 **Has State Certification in- Early Childhood**

0 = No
1 = Yes

cert4 **Has State Certification in- Middle School**

0 = No
1 = Yes

cert5 **Has State Certification in- secondary in specific certified field**

0 = No
1 = Yes

cert6 **Has State Certification in- National Board**

0 = No
1 = Yes

cert7 **Has State Certification in- Special Education**

0 = No
1 = Yes

cert8 **Has State Certification in- Other**

0 = No
1 = Yes

assign **How do you classify your main assignment at your school during the school year**

1 = Regular full-time
2 = Regular part-time
3 = Itinerant
4 = Long-term substitute
5 = Other staff teaching regularly scheduled classes
6 = Other

tchyrs **Regardless of whether you have taught a single subject or multiple subjects, how many years of experience do you have?**

sched **Which of these categories BEST describes the way your classes are organized?**

1 = I teach multiple subjects to the same class of students all or most of the day (Self-Contained).
2 = I teach subject matter courses to several classes of different students all or most of the day (Departmentalized).
3 = I team teach with one or more teachers in teaching multiple subjects to one or more classes of students (Team Taught).
4 = Other

format **Which of the following best describes the primary format of your BEST professional development experience?**

1 = Single workshop/institute
2 = Series of workshops/institutes
3 = Workshop/institute(s) with follow-up coaching by professional development provider(s)
4 = Presentation by colleague
5 = College course
6 = Conference
7 = Working with a mentor, coach, lead teacher, group, or network
8 = Participation in a teacher collaborative study or observation
9 = Other

leader **Who led your BEST professional development experience (if multiple people, indicate primary leader)?**

1 = Teacher or staff from your school
2 = District staff
3 = Regional educational unit staff
4 = State staff
5 = External professional development expert or consultant
6 = University/college faculty/staff
7 = Other

hours **Please indicate the number of hours spent in your BEST professional development experience, including all components and activities associate with the experience.**

collab1 **How did you interact with colleagues about topics covered? Did not interact and collaborate with my school colleagues about these topics.**

0 = Not checked
1 = Checked

collab2 **How did you interact with colleagues about topics covered? Interacted and collaborated with colleagues about covered topics as part of professional development experience**

0 = Not checked
1 = Checked

collab3 **How did you interact with colleagues about topics covered? Interacted and collaborated with colleagues about covered topics independent from prof development experience.**

0 = Not checked
1 = Checked

delivery **Which of the following best describes how the majority of this professional development was provided?**

1 = Live, in person
2 = Distance learning opportunity (e.g., video or Web facilitated)
3 = Other

know **proportion of items answered correctly on content knowledge "quiz" portion of survey instrument**

Calculated as follows: responses to all knowledge items scored incorrect = 0 and correct = 1, scores summed and divided by total number of items included in each version of the survey instrument.

Science Inquiry Content Knowledge Quiz included 17 items, some with multiple parts.

Mathematics Content Knowledge Quiz included 14 items, some with multiple parts.

RTI-based Literacy Content Knowledge Quiz included 13 items, some with multiple parts.

pract **average rating of topical foci as a focus of instruction in participant's classroom**

Calculated by averaging all ratings of topical foci as being a focus of instruction within the participant's own classroom.

Example item: *Over the past school year, to what degree has each of the following been a focus of instruction in your classroom?*

Scientific inquiry and the nature of science

0 = Unsure / Not a focus
1 = Minor focus
2 = Significant focus

import **average rating of topical foci as having perceived importance for promoting student learning**

Calculated by averaging all ratings of topical foci as being important for student learning.

Example item: *How important do you believe each of the following instructional topics is for promoting your students' learning?*

Scientific inquiry and the nature of science

0 = Less important
1 = Somewhat important
2 = Important
3 = Critical

enhance **average rating of extent to which own knowledge of topical foci was enhanced by PD experience**

Calculated by averaging all ratings of extent to which own knowledge of topical foci was enhanced by PD experience.

Example item: *To what degree has your knowledge of this instructional topic improved as a result of your BEST professional development experience?*

Scientific inquiry and the nature of science

0 = Not at all
1 = (No anchor provided – presented as a continuum)
2 = (No anchor provided – presented as a continuum)
3 = (No anchor provided – presented as a continuum)
4 = A Great Deal

align **average rating of extent to which topical foci were included in PD experience**

Calculated by averaging all ratings of extent to which each topical foci was included in PD experience.

Example item: *To what degree was this instructional topic included in your BEST professional development experience?*

Scientific inquiry and the nature of science

0 = Not included
1 = Minor Focus
2 = Significant Focus

Section 3. Topical Foci, by Content Version

Science Inquiry Version of Survey Instrument

a) Scientific inquiry and the nature of science
b) Student scientific misconceptions
c) Discipline-specific content knowledge (e.g., Earth science, biology)
d) Engaging students in asking scientifically oriented questions
e) Guiding students in proposing preliminary explanations or predictions
f) Guiding students in planning and conducting a simple investigation
g) Facilitating student use of simple equipment and tools to gather data
h) Helping students to use data to construct a reasonable explanation of their observations
i) Helping students to communicate investigations and explanations of their findings (e.g., writing, presenting, discussing)
j) Inquiry strategies: teacher provides explicit guidance and scaffolding for students to engage in the inquiry process; encourages student reflection; and facilitates student-student interaction through meaningful dialogue

Mathematics Version of Survey Instrument

a) Meaning, notation, place value, and comparisons
b) Number relationships and meaning of operations
c) Fluency with operations and estimation
d) Patterns, relations, functions, and change
e) Representation
f) Formula's expressions, equations, and inequalities
g) Units and systems of measurement
h) Techniques and formulas for measurement
i) Problem solving involving measurement
j) Geometric shape, properties, and mathematical arguments
k) Location and spatial relationships
l) Spatial reasoning and geometric modeling
m) Transformation and symmetry
n) Data and probability
o) Data representation
p) Data interpretation and analysis
q) Probability

RTI-based Literacy Version of Survey Instrument

a) Building phonological awareness (e.g., rhymes, dividing spoken language into sentences, words, syllabus)
b) Identifying, adding, deleting sounds in spoken words
c) Blending phonemes to form words
d) Letter-sound correspondence
e) Letter patterns (e.g., blends, digraphs, diphthongs, r-controlled vowels)
f) Using syllable patterns and component parts (e.g., roots, prefixed, suffixes) to read words
g) Direct teaching of vocabulary word meanings and origins
h) Word or phrase meaning from context
i) Antonyms, synonyms, and homonyms
j) Sight words
k) Guided oral reading with corrective feedback
l) Modeling and encouraging expression in phrasing, intonation, and inflection while reading
m) Comprehension strategies (e.g., activating prior knowledge, questioning, making connections, predictions, inference, imagery, summarization, re-telling, organizing text structure)
n) Narrative elements (e.g., events, characters, setting, plot)
o) Expository or informational elements (e.g., explanation, lists, and organizational patterns such as description, cause-effect, and compare-contrast)