

SY DOAN, DAVID GRANT, DANIELLA HENRY, JULIA H. KAUFMAN, REBECCA ANN LAWRENCE, ANDREA PRADO TUMA, CLAUDE MESSAN SETODJI, LAURA STELITANO, ASHLEY WOO, CHRISTOPHER J. YOUNG

American Instructional Resources Surveys

2020 Technical Documentation and Survey Results

The RAND American Educator Panels (AEP) consist of the American Teacher Panel (ATP) and the American School Leader Panel (ASLP). These panels are nationally representative samples of K–12 public school educators. The ATP includes more than 25,000 teachers, and the ASLP includes more than 7,500 school principals. Both groups respond to numerous online survey requests each year. The AEP began in 2014 and expanded significantly during the 2016–2017 and 2017–2018 school years (Robbins and Grant, 2020).

Since 2014, the RAND Corporation has recruited AEP members using probabilistic sampling methods. The AEP samples are designed to be of sufficient size to facilitate national analyses as well as analyses of prevalent subgroups at the national level (e.g., elementary school teachers, high school mathematics teachers, teachers in urban schools). Similarly, the panels are designed to permit analyses of the following geographic areas: Alabama, Arkansas, California, Florida, Georgia, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Nebraska, New Mexico, New York (New York State as a whole and New York City), North Carolina, Oklahoma, Rhode Island, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Wisconsin.¹ One also can examine subgroups within these geographic areas (although there is lower precision for smaller groups). The AEP sample is not designed to permit analyses within geographic areas not listed above or among subgroups not specified above.

The 2020 American Instructional Resources Surveys

A growing number of studies suggest that the use of specific curricula can lead to substantial increases in students' achievement, although most of these studies do not shed light on how

¹ State oversamples were funded by the Bill & Melinda Gates Foundation to track their investments in these states.

Abbreviations

AEP	American Educator Panels
AIRS	American Instructional Resources Surveys
ASLP	American School Leader Panel
ATP	American Teacher Panel
CCD	Common Core of Data
COVID-19	coronavirus disease 2019
ELA	English language arts
ELD	English language development
ELL	English language learner
ESL	English as a second language
IEP	Individualized Education Program
LMS	learning management system
NCES	National Center for Education Statistics
NGSS	Next Generation Science Standards
SEA	state education agency

curricula support achievement.² In addition, we know very little about how U.S. teachers use and modify curricula in their classrooms to support student needs. In spring 2019, RAND Corporation researchers administered the American Instructional Resources Surveys (AIRS) to a sample of ATP and ASLP members who work in K–12 schools to gather information from teachers and school leaders across the United States about their use of instructional resources (Kaufman et al., forthcoming). Findings provided insight into the following issues:

- what instructional materials are being used by teachers in English language arts (ELA), mathematics, and science classrooms
- how teachers are using those materials and how they perceive they are supporting students
- what resources are provided to teachers to give them the knowledge and support they need to use their instructional materials in ways that support student learning (see Table 1 for details about survey content areas).

In spring 2020, RAND researchers administered an updated survey to a sample of ATP and ASLP members to provide additional insight into

the aforementioned topics and additional items, including (1) science teachers' knowledge about their science standards and (2) the decisions schools are making around curriculum and instruction with school closures because of the coronavirus disease 2019 (COVID-19) pandemic. The updated survey also included minor revisions to some AIRS 2019 survey items based on feedback from reviewers and our experiences in analyzing the 2019 data.

The ATP sample targeted two groups of teachers—one based on geography and one based on subject(s) taught. Geographically, the sampling was designed to result in 400 completed surveys in each of 12 states (California, Delaware, Florida, Louisiana, Massachusetts, Mississippi, Nebraska, New Mexico, New York, Rhode Island, Tennessee, and Wisconsin) and 1,500 completed surveys across the balance of states for a national total of 6,300 surveys (see the “Survey Completion Results” section for details about completion rates). These sampling targets were selected to balance estimate precision, available sample, and ATP recruitment costs. The survey targeted K–12 teachers who reported teaching ELA, mathematics, or natural sciences. The survey instrument confirmed subject(s) taught and screened out teachers who reported not currently teaching ELA, mathematics, or science. Approximately 572 invited teachers were screened out during the survey process and were removed from the invited samples. No “screen-ins” were possible, which means that a teacher invited to participate as an ELA teacher who had switched to natural science was not included as a natural science respondent. As a result, some level of undercoverage might exist, with truly eligible teachers and principals currently misclassified as out of scope.

The ASLP sample targeted principals serving in schools at all grade levels with the goal of completing 1,500 surveys from a national sample of school leaders. Survey eligibility was limited to current school leaders, and the survey screened out 70 sampled panelists who were not currently working as school principals. Again, no “screen-ins” were possible.

Survey Administration and Content

We developed and modified the AIRS questionnaires in consultation with funders (see the “About

² For a comprehensive review of studies finding a relationship between the use of particular curricula and student achievement gains, see Steiner, 2017.

TABLE 1
ATP and ASLP Survey Content Areas

ATP Content Areas	ASLP Content Areas
Teacher and student characteristics	School leader and student characteristics
Teacher background	School leader background
Curriculum and instruction during COVID-19–related school closures	Curriculum and instruction during COVID-19–related school closures
Commonly used curricula and other instructional materials	Curricula and additional instructional materials recommended or required
Perceptions of commonly used materials	Perceptions of required or recommended materials
Principal supports for curricula and instruction	Principal supports for curricula and instruction
Teacher professional learning	Teacher professional learning
Modifications to materials	School leader professional learning
Standards-aligned content and approaches	Benchmark assessments
Student engagement	School culture
Instructional feedback	
Teacher preparation programs	
Teacher content area knowledge and beliefs	
School culture	

NOTE: ATP content area topics are asked of ELA, mathematics, and science teachers. With the exception of the COVID-19–related topic, similar items for each topic were asked of the same sample in spring 2019 and 2020 to facilitate longitudinal comparisons.

This Report” section) and a variety of experts on state standards and curricula. Experts and funders provided feedback on question wording, format, and sequencing, with the RAND team maintaining final editorial control on the survey items. The surveys were designed to generate representative data on teacher and principal perspectives regarding the topics listed in Table 1. Many survey items were developed by RAND researchers, but the surveys also borrowed items (with permission) from several other sources. Our data tables include notes on items borrowed or adapted from non-RAND sources.³ In addition, items were borrowed or adapted from prior RAND surveys (Doss and Johnston, 2018; Kaufman, Opfer, Bongard, and Pane, 2018; Kaufman, Opfer, Bongard, Pane, and Thompson, 2018).

The data generated from the surveys are intended to be used by researchers and state education agencies (SEAs) in the 12 states where we have teacher oversamples. SEAs in these 12 states can compare the responses of teachers from their states with a nationally representative comparison group. States have used AIRS data and previous AEP data to

inform policies on curriculum and instruction and to support their curriculum reform efforts.⁴

The ATP survey had an approximate administration time of 30 minutes. Respondents were assigned to sections based on their grade band (K–5, 6–8, or 9–12) and subject taught (ELA, mathematics, or natural science). Because of a lower number of 6th to 8th grade teachers, if a respondent indicated teaching any grade from 6th through 8th, they were assigned the 6–8 grade path. If a respondent indicated teaching any grade from kindergarten to 5th and from 9th to 12th, but not 6th to 8th, they were randomly assigned to either the K–5 or 9–12 grade path.

The ASLP survey had an approximate administration time of 30 minutes.

Survey Completion Results

The 2020 AIRS yielded 5,978 complete responses of 10,891 invitations for teachers (54.9 percent completion rate), and 1,420 of 4,924 invitations for school leaders (28.8 percent completion rate). Table 2 provides weighted descriptive statistics for survey respondents. The weights, which are described below,

³ Non-RAND sources included Achieve the Core, undated; Elmore, Forman, and Stosich, 2016; Shanahan and Duffett, 2013; TNTP, 2018; University of Chicago, 2017.

⁴ See, for example, Council of Chief State School Officers, 2020, p. 14; and Pondiscio, 2017.

are intended to ensure that the sample reflects the national population of teachers and school leaders.

Calibrated Weighting

Each AIRS survey respondent has been given a weight to ensure that estimates reflect the national population of teachers and school leaders. This

weight is calculated by first modeling response probabilities of teachers (or principals) across a wide variety of teacher (or principal) characteristics. The main weight is then calibrated so that the weighted sample matches the known national teacher or school leader population across these characteristics. Characteristics that factor into this process include

TABLE 2
Weighted Descriptive Statistics

	ATP		ASLP	
	Mean	Standard Error	Mean	Standard Error
School characteristics				
Elementary school ^a	0.573	0.011	0.552	0.015
Middle school ^a	0.154	0.008	0.179	0.011
High school ^a	0.232	0.009	0.203	0.012
Other types of schools ^a	0.042	0.004	0.066	0.008
Total enrollment	897.984	13.487	654.645	15.693
Percentage Asian students	0.061	0.003	0.048	0.004
Percentage Hispanic students	0.259	0.006	0.227	0.008
Percentage Black students	0.155	0.004	0.159	0.007
Percentage White students	0.481	0.007	0.523	0.010
Percentage other race/ethnicity students	0.056	0.003	0.059	0.003
Percentage of students receiving free or reduced-price lunch	0.523	0.006	0.527	0.009
High-poverty school ^a (>75% free or reduced-price lunch)	0.231	0.010	0.246	0.013
Title I eligible school ^a	0.705	0.011	0.754	0.014
City school ^a	0.290	0.010	0.263	0.014
Suburban school ^a	0.389	0.011	0.320	0.014
Town school ^a	0.114	0.008	0.131	0.010
Rural school ^a	0.207	0.009	0.286	0.014
Educator characteristics				
Total years in role	15.329	0.185	9.838	0.177
Female ^a	0.820	0.009	0.514	0.015
Asian ^{a,b}	0.037	0.005	0.012	0.003
Hispanic ^{a,b}	0.079	0.006	0.071	0.008
Black ^{a,b}	0.080	0.007	0.130	0.011
White ^{a,b}	0.802	0.009	0.787	0.013
Other race/ethnicity ^{a,b}	0.008	0.002	0.005	0.002

NOTE: The ATP sample contains 5,978 observations. The ASLP sample contains 1,420 observations. School characteristics were obtained from the Common Core of Data (CCD) and are from the 2018–2019 school year. Means and standard errors were calculated using survey weights, which are calibrated to match the national averages for teachers and school leaders. The definition for high-poverty school (more than 75 percent free or reduced-price lunch) follows the definition set forth by the National Center for Education Statistics (NCES; McFarland et al., 2017). Educator characteristics are self-reported by the respondent. The rate of missingness in educator characteristics is about 2 percent and 5 percent in the teacher and principal samples, respectively.

^a Variables are expressed as dichotomous indicators of group members (1 = in the group, 0 = not in the group).

^b Variables were not used in the calculation of sampling weights.

descriptors at the individual level (e.g., gender, professional experience) and school level (e.g., school size, level, urbanicity, socioeconomic status) (Robbins and Grant, 2020).

To produce estimates that reflect the population of ELA, mathematics, and natural science teachers in the United States, as well as national estimates for principals, we created weights. The final analysis weights in the data file are the product of the following three interim weights:

1. **Calibrated weight of the ATP/ASLP sampling frame:** a calibration weight that assigns a weight for each ATP or ASLP member based on individual- and school-level characteristics so that the sum of the weights along the calibration factors closely matches the characteristics of the national population of teachers or principals based on the Schools and Staffing Survey and the CCD, which are both from the NCES (see Robbins and Grant, 2020, for more information)
2. **Sample selection weight:** the inverse probability of selection into the AIRS 2020 sample using the ATP and ASLP as the frame; these probabilities were selected in order to have 6,300 participants in the ATP and 1,500 in the ASLP
3. **Survey response weight:** the inverse of the modeled probability of a teacher or principal completing the survey.

The products of these weights were subsequently recalibrated and trimmed as necessary.⁵ We conducted recalibration to ensure that the weights were set up to recover the population estimates after the screening and for nonresponse weight adjustments. The sampling and weighting approach was designed to ensure a representative sample and limit the size of the design effect. The sampling frame weights (p_{fi}) were calculated to make the panel match the national population of teachers and principals based on several school-level (e.g., school size, level, urbanicity, sociodemographics) and individual-level (e.g., gender,

education, experience) characteristics. The inverse of the selection probabilities (p_{si}) was used as the sample selection weight. The response weights were estimated by modeling the likelihood (p_{ri}) of a selected participant responding to the survey conditional on the school- and individual-level characteristics of teachers and principals (including states). For parsimony, a variable selection method was used to choose the model that best fit the data. The main weight was estimated as the product of the sampling frame calibration weight ($1/p_{fi}$), the sample selection weight ($1/p_{si}$), and the response weight ($1/p_{ri}$):

$$\text{Main Weight} = \frac{1}{p_{fi}} \times \frac{1}{p_{si}} \times \frac{1}{p_{ri}}$$

Because there is no guarantee that this main weight sums to the total of all the population characteristics, it was calibrated again, based on individual and school-level characteristics, to obtain the final weight. If some of these final weights were extreme within sampling states, a trimming process (at the 95th percentile) was used to reduce the outliers, and the trimmed weights were reallocated for the population totals to remain the same after trimming.⁶

⁵ We estimated the recalibration totals using the full ATP sampling frame, assuming that the full frame would provide an adequate approximation for the subsets of ELA, mathematics, and natural science teachers included in the AIRS-specific sample.

⁶ Replicate weights were not produced for the AIRS data files; variance estimation using the provided single weight should suffice. We made this decision after calculating variance with and without replication and determined that differences in the standard errors were negligible. If analysts of these data need to estimate variance using replication, syntax for an alternative variance estimation method (jackknife) is available upon request.

American Instructional Resources Surveys: Teacher Survey Results

Teacher and Student Characteristics

1. With which of the following do you identify? (*n* = 5,866)

Teacher Race/Ethnicity	Weighted Percentage
American Indian or Alaska Native	1
Asian	4
Black or African American	8
Hispanic, Latino, or Spanish origin	8
Native Hawaiian or other Pacific Islander	0
White	80
Other	1
Decline to respond	4

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

2. Approximately, what percentage of the students you teach—including those in small push-in or pull-out groups—are English language learners (ELLs)? (*n* = 5,864)

Percentage of ELL Students	Weighted Percentage
10 or less	59
11–24	17
25–49	10
50–74	5
75–100	8

NOTE: All percentages were rounded to the nearest integer.

3. Approximately, what percentage of the students you teach have an Individualized Education Program (IEP) and/or 504 plan? (*n* = 5,864)

Percentage of IEP Students	Weighted Percentage
10 or less	38
11–24	35
25–49	16
50–74	3
75–100	8

NOTE: All percentages were rounded to the nearest integer.

4. With which of the following do you identify? (*n* = 5,974)

Gender	Weighted Percentage
Male	18
Female	82

NOTE: All percentages were rounded to the nearest integer.

5. Percentage of Respondents by School Enrollment of Black Students (*n* = 5,685)

Percentage of Black Students (School)	Weighted Percentage
10 or less	59
11–24	20
25–49	12
50–74	5
75–100	4

NOTE: Information on school-level enrollments was obtained from the 2018–2019 NCES CCD (NCES, 2019).

6. Percentage of Respondents by School Enrollment of Hispanic/Latino Students (*n* = 5,744)

Percentage of Hispanic/Latino Students (School)	Weighted Percentage
10 or less	40
11–24	23
25–49	17
50–74	11
75–100	9

NOTE: Information on school-level enrollments was obtained from the 2018–2019 NCES CCD (NCES, 2019).

Teacher Background

7. This school year (2019–2020), what grade(s) do you teach? (*n* = 6,657)

Grade	Weighted Percentage
Kindergarten	13
Grade 1	15
Grade 2	15
Grade 3	17
Grade 4	16
Grade 5	16
Grade 6	8
Grade 7	8
Grade 8	10
Grade 9	14
Grade 10	17
Grade 11	18
Grade 12	17
Ungraded (including special education students aged 18–22)	1
Other	2

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

8. School Grade Level Routing (*n* = 6,014)

Level	Weighted Percentage
Elementary	59
Middle	18
High	23

NOTE: All percentages were rounded to the nearest integer. Grade assignment reflects survey routing pattern.

9. Please indicate the main subject(s) you teach (*n* = 6,609)

Subject	Weighted Percentage
Mathematics (including general mathematics, algebra, geometry, calculus, etc.)	65
ELA (including English, language arts, reading, literature, writing, speech, etc.)	71
Natural science (including general science, biology, chemistry, physics, etc.)	52
Social science (including social studies, geography, history, government and civics, etc.)	45
Art and/or music	7
Health education	10
World languages	1
Computer science	7
Career or technical education	1
Special education	13
English as a second language (ESL) or English language development (ELD)	11
Physical education	4
Other	4

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

10. Including this school year (2019–2020), how long have you worked as a teacher? (*n* = 5,866)

Years of Experience	Weighted Percentage			
	Total	In Current State	In Current District	In Current School
0–5 years	10	13	24	36
6–10 years	24	26	26	28
11–15 years	21	22	20	18
16–20 years	19	18	15	9
21 or more years	25	21	15	9

NOTE: This question instructed respondents to round to the nearest whole number.

COVID-19 Items

11. Please estimate the proportion of your students who have access to the internet at home. (*n* = 5,978)

Percentage of Students	Weighted Percentage
None or almost none	0
Approximately 25%	6
Approximately 50%	14
Approximately 75%	29
Nearly all or all	49
I don't know	1

NOTE: All percentages were rounded to the nearest integer.

12. Did your school building close to in-person instruction because of the COVID-19 pandemic? (*n* = 5,978)

Response	Weighted Percentage
No	1
Yes	99

NOTE: All percentages were rounded to the nearest integer.

13. On what date did your school close? (*n* = 5,919)

Dates	Weighted Percentage
Before or on March 12, 2020	6
March 13, 2020–March 19, 2020	78
March 20, 2020–March 31, 2020	13
On or after April 1, 2020	3

NOTE: All percentages were rounded to the nearest integer.

14. Has your school reopened yet? (*n* = 5,922)

Response	Weighted Percentage
No	100
Yes	0

NOTE: All percentages were rounded to the nearest integer.

15. During the time your school has been closed, which of the following best describes the situation? (*n* = 5,908)

Category	Weighted Percentage
I did not send schoolwork home to students.	5
I sent schoolwork home to students, but completing the work was optional.	24
I sent schoolwork home to students with the expectation that students would complete the work.	71

NOTE: All percentages were rounded to the nearest integer.

16. Which of the following have you or your school provided to students during the time your school has been closed? (*n* = 5,586)

Category	Weighted Percentage
Distance learning plan	73
Distance learning plan each week	82
Digital device (e.g., Chromebook or tablet) for all students or those who did not have one	78
Hot spot for internet access	45
Information about how to access free or discounted internet	73
Suggestions and/or resources for student learning activities	88
None of the above	0

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

17. What learning materials have been provided during the time your school has been closed? (*n* = 5,563)

Category	Weighted Percentage			
	Hard Copies Only	Online Materials Only	Both	N/A
Mathematics	4	37	59	0
ELA	3	37	60	0
Natural science	3	60	37	0
Social science	5	56	39	0
Art and/or music	4	83	13	0
Health education	6	75	18	0
World languages	0	56	44	0
Computer science	0	92	8	0
Career or technical education	0	78	21	0
Special education	4	51	45	0
ESL/ELD	1	59	40	0
Physical education	2	90	9	0
Other subject	1	77	20	1

NOTE: All percentages were rounded to the nearest integer. N/A = not applicable.

18. Have you graded the work being completed during the time school has been closed? (*n* = 5,586)

Response	Weighted Percentage
No	26
Yes	55
Varies based on subject or class	19

NOTE: All percentages were rounded to the nearest integer.

19. In a typical week since your school has been closed, approximately how many hours have you spent on instructional planning, including creating lessons, creating materials, or ensuring online access for students? (*n* = 5,567)

Category	Weighted Percentage
0–5 hours	14
6–10 hours	18
11–20 hours	25
21–30 hours	16
31–50 hours	20
50 or more hours	7

NOTE: All percentages were rounded to the nearest integer.

20. What learning management system(s) (LMS) are you using, if any, during the time that school has been closed? (*n* = 5,586)

Learning Management System	Weighted Percentage
I am not using an LMS	7
Blackboard	3
Canvas	9
D2L Brightspace	0
Google Classroom	59
Moodle	1
Schoology	10
Other LMS not listed here	28
I don't know	1

NOTE: All percentages rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

21. While your school has been closed, how frequently have you engaged in the following types of communication with your students? (*n* = 5,586)

Category	Weighted Percentage			
	Less Than Weekly	1–2 Times per Week	3–4 Times per Week	Daily or More Often
Asynchronous communication, such as email, text, and/or postings to an LMS	3	20	22	55
Synchronous communication, such as phone or video calls (e.g., Zoom, Google Meet)	19	40	20	21
Providing feedback or grades to students on their work	10	30	21	39

NOTE: All percentages were rounded to the nearest integer.

22. Please estimate the proportion of your students who are completing assignments you have provided during the time your school has been closed. (*n* = 5,585)

Estimated Proportion of Students Completing Assignments	Weighted Percentage
None or almost none	3
Approximately 25%	17
Approximately 50%	28
Approximately 75%	31
Nearly all or all	19
I don't know	2

NOTE: All percentages were rounded to the nearest integer.

23. Approximately how many hours of learning activities have you asked your students to complete on a typical weekday during the time your school has been closed? (*n* = 5,571)

Hours of Learning Activities	Weighted Percentage
0–2	65
3–5	25
6–10	7
10 or more	2

NOTE: All percentages were rounded to the nearest integer.

24. Please estimate the proportion of students' families who have communicated with you in any way during the time school has been closed regarding the work students are doing at home and/or to ask questions about how to support their children's learning. (*n* = 5,585)

Estimated Proportion of Families Communicating	Weighted Percentage
None or almost none	12
Approximately 25%	32
Approximately 50%	19
Approximately 75%	17
Nearly all or all	20
I don't know	0

NOTE: All percentages were rounded to the nearest integer.

Commonly Used Curricula

English Language Arts Curricula

25. Which of the following curricula do you use regularly (once a week or more, on average) for your ELA instruction this school year (2019–2020)?

25a. Top Ten Elementary School ELA Curricula ($n = 1,312$)

Curriculum Name	Weighted Percentage
Curricula I create myself	23
Curricula my school or district created	20
Journeys (Houghton Mifflin Harcourt)	20
Lucy Calkins Unit of Study	18
The Fountas & Pinnell Classroom (Heinemann)	16
Reading Wonders–2017 (McGraw-Hill Education)	10
Leveled Reader Series	10
Benchmark Advance or Literacy (Benchmark Education)	10
EngageNY (New York State Education Department)	9
Foundations (Wilson Language Training)	8

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

25b. Top Ten Middle School ELA Curricula ($n = 625$)

Curriculum Name	Weighted Percentage
Curricula I create myself	50
CommonLit (CommonLit)	31
Curricula my school or district created	30
EngageNY (New York State Education Department)	12
Collections–2017 (Houghton Mifflin Harcourt)	11
Lucy Calkins Unit of Study	11
Holt McDougal Literature (Houghton Mifflin Harcourt)	11
Collections–2015 (Houghton Mifflin Harcourt)	8
MyPerspectives–2017 (Pearson)	6
Leveled Reader Series	5

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

25c. Top Ten High School ELA Curricula (*n* = 508)

Curriculum Name	Weighted Percentage
Curricula I create myself	66
Curricula my school or district created	37
CommonLit (CommonLit)	23
Holt McDougal Literature (Houghton Mifflin Harcourt)	10
Pearson Literature–2015 (Pearson)	10
SpringBoard ELA Common Core Edition–2018 (College Board)	9
Edgenuity (Edgenuity, Inc.)	8
Collections–2017 (Houghton Mifflin Harcourt)	6
EngageNY (New York State Education Department)	6
MyPerspectives–2017 (Pearson)	5

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

26. Beyond curricula, please indicate which additional instructional materials you use regularly (once a week or more, on average) for your ELA instruction this school year (2019–2020) (*n* = 2,444)

Additional Instructional Material	Weighted Percentage
YouTube	44
Kahoot!	33
BrainPOP	32
Newsela	30
Epic!	28
ReadWorks	27
Scholastic News	21
Khan Academy	17
i-Ready	17
Accelerated Reader (Renaissance)	17

NOTE: This table presents the top ten most-selected additional instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use additional instructional materials.

27. Beyond curricula, please indicate which additional materials you reference regularly (once a week or more, on average) to plan your ELA instruction this school year (2019–2020) (*n* = 2,443)

Planning Material	Weighted Percentage
Teachers Pay Teachers	55
Using a search engine (e.g., Google)	43
Common Core State Standards Initiative (corestandards.org)	23
Resources obtained through a search on Pinterest	22
State department of education website	18
Scholastic Teacher	15
Edutopia	8
NCTE (National Council of Teachers of English)	6
Achieve the Core	4
Teacher.org	4

NOTE: This table presents the top ten most-selected planning materials. Responses for “Other” and “N/A” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use planning materials.

Math Curricula

28. Which of the following curricula do you use regularly (once a week or more, on average) for your math instruction this school year (2019–2020)?

28a. Top Ten Elementary School Math Curricula ($n = 1,103$)

Curriculum Name	Weighted Percentage
Go Math (Houghton Mifflin Harcourt)	19
Curricula I create myself	16
Curricula my school or district created	15
EngageNY (New York State Education Department)	15
Eureka Math (Great Minds)	13
Zearn (Zearn, Inc.)	12
Ready (Curriculum Associates)	11
enVision Math 2.0–2016 (Pearson)	11
My Math–2014 or 2018 (McGraw-Hill Education)	9
enVision Math–2020 (Pearson)	6

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

28b. Top Ten Middle School Math Curricula ($n = 491$)

Curriculum Name	Weighted Percentage
Curricula I create myself	32
Curricula my school or district created	15
Go Math (Houghton Mifflin Harcourt)	14
Glencoe Math (McGraw-Hill Education)	13
Holt McDougal Mathematics (Houghton Mifflin Harcourt)	11
Open Up Resources 6–8 Math or Illustrative Math (Open Up Resources)	11
Big Ideas Math (Big Ideas Learning, LLC)	10
EngageNY (New York State Education Department)	9
Connected Mathematics Project 3 (Pearson)	8
Illustrative Math (Kendall Hunt, LearnZillion, McGraw Hill)	7

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

28c. Top Ten High School Math Curricula ($n = 455$)

Curriculum Name	Weighted Percentage
Curricula I create myself	44
Curricula my school or district created	28
Big Ideas Traditional (Big Ideas Learning, LLC)	12
Pearson Traditional (Pearson)	11
Glencoe Traditional (McGraw-Hill Education)	11
Holt McDougal Larson Traditional Series (Houghton Mifflin Harcourt)	10
Pearson Integrated (Pearson)	6
EngageNY (New York State Education Department)	6
Carnegie Integrated–2018 (Carnegie Learning)	5
SpringBoard Traditional (College Board)	5

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

29. Beyond curricula, please indicate which additional instructional materials you use regularly (once a week or more, on average) for your math instruction this school year (2019–2020). (*n* = 2,049)

Additional Instructional Material	Weighted Percentage
Khan Academy	38
YouTube	34
Kahoot!	28
BrainPOP	27
Prodigy	23
Quizizz	20
i-Ready (Curriculum Associates)	18
Desmos	16
IXL Math	16
Quizlet	11

NOTE: This table presents the top ten most-selected additional instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use additional instructional materials.

30. Beyond curricula, please indicate which additional materials you reference regularly (once a week or more, on average) to plan your math instruction this school year (2019–2020). (*n* = 2,049)

Planning Material	Weighted Percentage
Teachers Pay Teachers	56
Using a search engine (e.g., Google)	33
Resources obtained through a search on Pinterest	19
Common Core State Standards Initiative (corestandards.org)	17
State department of education website	17
Kuta Software	17
Scholastic Teacher	5
Open Middle	3
Robert Kaplinsky	3
Achieve the Core	3

NOTE: This table presents the top ten most-selected planning materials. Responses for “Other” and “N/A” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use planning materials.

Science Curricula

31. Which of the following science curricula do you use regularly (once a week or more) for your science instruction this school year (2019–2020)?

31a. Top Ten Elementary Science Curricula ($n = 791$)

Curriculum Name	Weighted Percentage
Mystery Science (Mystery Science)	31
Curricula I create myself	30
Curricula my school or district created	20
FOSS Next Generation K-8 (Delta Education)	17
STEMscopes (Accelerate Learning, Inc.)	12
Harcourt Science (Houghton Mifflin Harcourt)	10
Science Techbook (Discovery Education)	6
ScienceFusion (Houghton Mifflin Harcourt)	5
McGraw-Hill Science (McGraw-Hill Education)	5
Amplify Science (Amplify)	5

NOTE: This table presents the top ten most-selected instructional materials. Responses for "Other" and "N/A" are not included in this list. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

31b. Top Ten Middle School Science Curricula ($n = 334$)

Curriculum Name	Weighted Percentage
Curricula I create myself	48
Curricula my school or district created	23
STEMscopes (Accelerate Learning, Inc.)	18
McGraw-Hill Science (McGraw-Hill Education)	11
Interactive Science (Pearson)	9
ScienceFusion (Houghton Mifflin Harcourt)	9
Prentice Hall Science Explorer (Pearson)	8
Science Techbook (Discovery Education)	8
Amplify Science (Amplify)	7
Glencoe Life Science (McGraw-Hill Education)	6

NOTE: This table presents the top ten most-selected instructional materials. Responses for "Other" and "N/A" are not included in this list. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

31c. Top Ten High School Science Curricula ($n = 358$)

Curriculum Name	Weighted Percentage
Curricula I create myself	70
Curricula my school or district created	43
Next Generation Science Storylines units (Next Generation Science Storylines)	9
HMH Science Dimensions (Houghton Mifflin Harcourt)	8
STEMscopes (Accelerate Learning, Inc.)	8
Science Techbook (Discovery Education)	5
Inspire Science (McGraw-Hill Education)	5
Science Education for Public Understanding Program (SEPUP) (Lab-Aids)	5
OpenStax (Rice University)	3
Issues and Science (Lab-Aids)	2

NOTE: This table presents the top ten most-selected instructional materials. Responses for "Other" and "N/A" are not included in this list. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

32. Please indicate which additional materials your students and/or you use regularly (once a week or more) for science instruction this school year (2019–2020). (*n* = 1,483)

Additional Instructional Material	Weighted Percentage
YouTube	60
BrainPOP	48
Kahoot!	37
Khan Academy	24
Quizlet	21
PhET Interactive Simulations	18
Newsela	15
ixl.com	9
MobyMax	9
FOSS Equipment Kits (Delta Education)	9

NOTE: This table presents the top ten most-selected additional instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use additional instructional materials.

33. Beyond curricula, please indicate which additional materials you reference regularly (once a week or more, on average) to plan your science instruction this school year (2019–2020). (*n* = 1,483)

Planning Material	Weighted Percentage
Using a search engine (e.g., Google)	54
Teachers Pay Teachers	50
Next Generation Science Standards (www.nextgenscience.org)	34
State department of education website	22
Resources obtained through a search on Pinterest	21
NSTA (National Science Teachers Association)	14
BetterLesson	7
Edutopia	5
Edmodo	4
TeachingChannel	2

NOTE: This table presents the top ten most-selected planning materials. Responses for “Other” and “N/A” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use planning materials.

Main Materials Used by Teachers

34. Of the curriculum materials you indicated using regularly, please choose the one to three main materials you use the most.

34a. Top Ten Main Elementary School ELA Curriculum Materials ($n = 1,270$)

Material Name	Weighted Percentage
Journeys (Houghton Mifflin Harcourt)	13
Curricula I create myself	13
Lucy Calkins Unit of Study	13
Curricula my school or district created	12
i-Ready	11
Reading Wonders–2017 (McGraw-Hill Education)	9
Teachers Pay Teachers	8
The Fountas & Pinnell Classroom (Heinemann)	7
ReadWorks	6
Accelerated Reader (Renaissance)	5

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Percentages will not sum to 100 percent.

34b. Top Ten Main Middle School ELA Curriculum Materials ($n = 596$)

Material Name	Weighted Percentage
Curricula I create myself	41
Curricula my school or district created	17
Common Core State Standards Initiative (corestandards.org)	11
Newsela	9
Teachers Pay Teachers	9
Lucy Calkins Unit of Study	6
Collections–2017 (Houghton Mifflin Harcourt)	6
Using a search engine (e.g., Google)	6
Holt McDougal Literature (Houghton Mifflin Harcourt)	5
CommonLit (CommonLit)	5

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Percentages will not sum to 100 percent.

34c. Top Ten Main High School ELA Curriculum Materials ($n = 480$)

Material Name	Weighted Percentage
Curricula I create myself	60
Curricula my school or district created	22
Common Core State Standards Initiative (corestandards.org)	9
Teachers Pay Teachers	8
Using a search engine (e.g., Google)	5
Holt McDougal Literature (Houghton Mifflin Harcourt)	4
SpringBoard ELA Common Core Edition–2018 (College Board)	4
Newsela	4
Collections–2015 (Houghton Mifflin Harcourt)	4
Collections–2017 (Houghton Mifflin Harcourt)	4

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Participants were allowed to select one to three materials. Percentages might sum to more or less than 100 percent.

34d. Top Ten Main Elementary School Math Curriculum Materials ($n = 1,084$)

Material Name	Weighted Percentage
Go Math (Houghton Mifflin Harcourt)	14
Teachers Pay Teachers	12
Curricula my school or district created	12
Eureka Math (Great Minds)	11
i-Ready (Curriculum Associates)	11
EngageNY (New York State Education Department)	8
Curricula I create myself	7
Ready (Curriculum Associates)	7
enVision Math 2.0–2016 (Pearson)	7
State department of education website	6

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Percentages will not sum to 100 percent.

34e. Top Ten Main Middle School Math Curriculum Materials ($n = 476$)

Material Name	Weighted Percentage
Curricula I create myself	24
Curricula my school or district created	11
i-Ready (Curriculum Associates)	9
Go Math (Houghton Mifflin Harcourt)	8
Big Ideas Math (Big Ideas Learning, LLC)	8
Open Up Resources 6–8 Math or Illustrative Math (Open Up Resources)	8
Teachers Pay Teachers	8
Holt McDougal Mathematics (Houghton Mifflin Harcourt)	7
Khan Academy	6
Glencoe Math (McGraw-Hill Education)	6

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Percentages will not sum to 100 percent.

34f. Top Ten Main High School Math Curriculum Materials ($n = 427$)

Material Name	Weighted Percentage
Curricula I create myself	33
Curricula my school or district created	19
Kuta Software	11
Teachers Pay Teachers	9
Big Ideas Traditional (Big Ideas Learning, LLC)	8
Desmos	7
Pearson Traditional (Pearson)	7
Glencoe Traditional (McGraw-Hill Education)	6
Holt McDougal Mathematics (Houghton Mifflin Harcourt)	5
Khan Academy	5

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Percentages will not sum to 100 percent.

34g. Top Ten Main Elementary Science Curriculum Materials ($n = 785$)

Material Name	Weighted Percentage
Teachers Pay Teachers	19
Mystery Science (Mystery Science)	16
Curricula I create myself	16
Curricula my school or district created	11
BrainPOP	11
Next Generation Science Standards (www.nextgenscience.org)	10
FOSS Next Generation K–8 (Delta Education)	10
STEMscopes (Accelerate Learning, Inc.)	8
FOSS Equipment Kits (Delta Education)	8
YouTube	7

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Percentages will not sum to 100 percent.

34h. Top Ten Main Middle School Science Curriculum Materials ($n = 332$)

Material Name	Weighted Percentage
Curricula I create myself	41
Next Generation Science Standards (www.nextgenscience.org)	18
Using a search engine (e.g., Google)	12
STEMscopes (Accelerate Learning, Inc.)	11
Curricula my school or district created	11
State department of education website	8
BrainPOP	8
Amplify Science (Amplify)	6
YouTube	6
Teachers Pay Teachers	5

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Percentages will not sum to 100 percent.

34i. Top Ten Main High School Science Curriculum Materials ($n = 354$)

Material Name	Weighted Percentage
Curricula I create myself	60
Curricula my school or district created	27
Next Generation Science Standards (www.nextgenscience.org)	17
YouTube	13
Using a search engine (e.g., Google)	9
PhET Interactive Simulations	4
State department of education website	4
NSTA (National Science Teachers Association)	3
Teachers Pay Teachers	3
HMH Science Dimensions (Houghton Mifflin Harcourt)	2

NOTE: This table presents the top ten instructional materials selected by respondents as “main” instructional materials. Participants were allowed to select one to three materials. Percentages might sum to more or less than 100 percent.

Perceptions of Main Materials

35. Indicate your agreement or disagreement with the following statements about your main ELA/math/science materials, excluding the materials that you have created yourself. (*n* = 5,342)

My main [ELA/math/science] materials . . .	Weighted Percentage		
	ELA	Math	Science
Help my students master my state's standards	94	96	96
Cover content addressed by benchmark and districtwide assessments sufficiently	93	96	93
Include classroom assessments	89	92	83
Cover content addressed by my state-mandated assessment sufficiently	92	95	94
Meet the needs of students with IEPs or 504 plans	76	80	84
Meet the needs of ELLs	79	79	78
Provide me with a manageable number of topics to teach in a school year	86	85	87
Help me accelerate the learning of students who are performing below grade level	76	73	67
Are culturally relevant	86	81	83
Provide digital instructional materials for use by all students	78	76	78
Provide me with too much content or too many activities for allotted instructional time	65	65	57
Provide digital instructional materials for use by ELLs	70	67	68
Provide texts that are linguistically appropriate for ELLs	72	64	70
Are engaging for students	90	85	92
Are easy for me to implement	90	92	90
Provide differentiated (i.e., scaffolded) materials to meet the needs of different students	84	78	73

NOTE: Response choices for these items were "strongly disagree," "somewhat disagree," "somewhat agree," and "strongly agree." We display the percentage of teachers who reported that they somewhat agree and strongly agree to measure agreement with these statements.

36. My main materials (excluding materials I create myself) are . . . (*n* = 5,952)

	Weighted Percentage		
	ELA	Math	Science
Too challenging for the majority of my students	21	21	14
At the right level for the majority of my students	75	74	81
Not challenging enough for the majority of my students	4	5	5

NOTE: All percentages were rounded to the nearest integer.

Modifications to Materials

37. I typically use lessons from my main materials . . . (*n* = 5,952)

	Weighted Percentage		
	ELA	Math	Science
With no modifications	8	9	8
With modifications to less than half of a lesson plan	45	41	39
With modifications to half of a lesson plan	24	25	25
With modifications to more than half of a lesson plan	11	14	14
N/A—My main materials do not include lesson plans or I typically create my own lesson plans	13	11	14

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer.

38. For each purpose below, I modify a typical lesson **for about half or more than half of a typical lesson**: ($n = 4,743$)

Type of Modification	Weighted Percentage		
	ELA	Math	Science
To make materials more culturally relevant for my students	69	53	62
To provide more enrichment activities for students who have already mastered the material	88	83	78
To provide more remediation activities for students who have not yet mastered the material	96	96	86
To make materials more appropriate for my students with IEPs or 504 plans	93	88	87
To make materials more appropriate for ELLs	76	58	65
To reduce the time they will take (e.g., fit them into the lesson or into a unit)	91	86	90
To better address state standards	75	64	72
To better address the content in my subject area	76	72	83
To scale them for a larger class size	55	41	52
To integrate with other subject matter, such as science or social studies	73	52	72
Other	21	19	15

NOTE: Response choices for these items were “I do not make this type of modification,” “for less than half of a typical lesson,” “for about half of a typical lesson,” and “for half or more of a typical lesson.” We display the percentage of teachers who reported making each type of modification for about half or half or more of a typical lesson. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

Principal Supports, Student Engagement, Instructional Feedback, and Science Instruction

Principal Supports

39. Indicate your agreement or disagreement with the following statements regarding your ELA/math/science teaching this school year (2019–2020). ($n = 5,851$)

	Weighted Percentage		
	ELA Teachers	Math Teachers	Science Teachers
My principal encourages me to use existing curricula as the basis for my lessons.	82	85	81
My principal encourages me to plan lessons from scratch (i.e., based on teachers’ self-created materials).	47	42	47
My principal provides me with feedback on how well I use [ELA/math/science] curricula.	70	74	58
My principal knows which curricula are and are not aligned with my state’s standards.	82	86	67
My teacher observations take into account my use of the required [ELA/math/science] curricula.	80	80	63

NOTE: Response choices for these items were “strongly disagree,” “somewhat disagree,” “somewhat agree,” and “strongly agree.” We display the percentage of teachers that reported that they somewhat agree and strongly agree to measure agreement with these statements. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

40. Who is the primary decisionmaker about which instructional materials teachers use in their classroom each day? ($n = 5,929$)

Primary Decisionmaker	ELA	Math	Science
Me	38	40	51
Teachers in my school system (including or excluding me)	17	18	18
My principal	6	5	2
My district leaders	36	36	27
Someone else	3	2	3

NOTE: All percentages were rounded to the nearest integer.

Student Engagement

41. In this school year (2019–2020), what proportion of your students typically engage in each of the following ELA activities at least once a week for the ELA classes you teach? ($n = 2,424$)

Classroom Practice	Weighted Percentage				
	No Students	Less Than Half of My Students	About Half of My Students	More Than Half of My Students	All or Nearly All of My Students
Read fictional texts of sufficient grade-level complexity with the whole class	3	8	12	22	54
Read nonfiction texts of sufficient grade-level complexity with the whole class	3	10	16	22	49
Read and discuss different texts, depending on students' assigned reading levels	5	8	15	23	49
Read or discuss texts of sufficient grade-level complexity for at least half of instructional time	3	9	19	25	44
Use evidence from a text to make inferences about central ideas or key details	1	7	14	26	52
Analyze how two or more texts address similar themes or topics	3	13	20	27	38
Write arguments to support claims in an analysis of substantive topics	14	19	16	20	32
Write responses to reading based on student prior experience or knowledge of the theme or topic	4	11	17	23	43
Learn and use a range of general academic and domain-specific vocabulary (i.e., words and phrases) sufficient for college and career readiness	4	10	19	25	42
Build knowledge of specific literary devices or concepts (e.g., irony, rhetoric)	9	14	20	23	33
Practice specific reading comprehension skills or strategies	1	4	13	24	58
Build volume of independent reading to build knowledge about topics	2	12	21	25	40

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Percentages will not sum to 100 percent because of rounding.

42. In this school year (2019–2020), what proportion of your students typically engage in each of the following activities at least once a week for the mathematics classes you teach? ($n = 2,032$)

Activity	Weighted Percentage				
	No Students	Less Than Half of My Students	About Half of My Students	More Than Half of My Students	All or Nearly All of My Students
Spend at least half of instructional time on grade-level mathematics topics addressed by the state mathematics standards for my grade level	1	5	13	23	57
Revisit previous grades' content to fill learning gaps	5	45	22	16	12
Relate new mathematics content to other mathematics content within and across grade levels	4	18	25	26	27
Pursue conceptual understanding, procedural skill and fluency, and application with equal intensity	2	19	21	30	28
Explain their thinking and build on other students' thinking	1	17	26	28	29
Make sense of problems that do not include clear procedures for solving them	2	23	30	24	21
Persevere in solving problems that do not include clear solution procedures	2	25	30	25	19
Use repeated practice to improve their procedural skills	1	8	21	31	39
Apply mathematics to solve problems in real-world contexts	1	14	24	27	34
Look for and make use of structure (e.g., patterns in numbers, shapes, or algorithms)	1	13	27	30	29
Choose and use appropriate tools when solving a problem	0	10	28	32	30

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer.

43. In this school year (2019–2020), what proportion of your students typically engage in each of the following activities at least once a week for the science classes you teach? ($n = 1,468$)

Activity	Weighted Percentage				
	No Students	Less Than Half of My Students	About Half of My Students	More Than Half of My Students	All or Nearly All of My Students
Discuss different ways to approach a problem	4	18	27	22	29
Justify their scientific thinking verbally or through a model	5	18	23	27	27
Justify their scientific reasoning in writing	8	23	21	25	24
Construct a scientific argument supported by evidence	10	26	21	23	20
Develop their own questions about a scientific topic	6	30	23	21	19
Develop or use scientific models	8	21	16	23	31
Plan and carry out a scientific investigation	8	17	19	20	36
Analyze or interpret data	5	13	18	26	38
Use mathematics or computational thinking in science	11	15	20	25	28
Construct their own explanations and arguments using evidence and reasoning	5	17	27	26	25
Obtain, evaluate, or communicate information about a phenomenon	9	21	23	23	26
Use engineering design processes to develop solutions to problems	18	25	20	19	17
Participate in a hands-on scientific experience	4	5	8	16	67
Write in a science journal (e.g., taken notes/recorded questions or observations)	14	12	11	15	48
Hear from or engage with scientists to learn about science	48	20	10	7	16
Revise or change one's thinking based on new learning	7	20	25	25	23

NOTE: This question was adapted from University of Chicago, 2017. All percentages were rounded to the nearest integer.

Instructional Feedback

44. Do you receive feedback from observations of ELA/math/science instruction that help you improve your instructional practice? ($n = 5,918$)

	Weighted Percentage		
	ELA	Math	Science
No	16	14	22
Yes	70	76	51
N/A—I don't receive feedback from observations of my [ELA/math/science] instruction	14	11	27

NOTE: All percentages were rounded to the nearest integer.

Science Instruction

45. How frequently do you use science kits that are provided by publishers like FOSS or Smithsonian STC to engage students in hands-on learning? ($n = 1,483$)

Frequency	Weighted Percentage
Never	60
Once a month or less	16
2–3 times a month	11
Once a week	5
2–3 times a week	4
For nearly every lesson	3

NOTE: All percentages were rounded to the nearest integer.

46. Indicate your agreement or disagreement with the following statements about the science kits you use for your classroom science instruction. ($n = 574$)

Science kits I use for science instruction in my classroom . . .	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
. . . are easy to store	19	23	39	20
. . . are regularly replenished by my school or district	20	21	36	23
. . . are time-consuming or difficult to set up in preparation for use	12	34	42	12

NOTE: All percentages were rounded to the nearest integer.

47. Is your school currently implementing the Next Generation Science Standards (NGSS)? ($n = 1,465$)

Response	Weighted Percentage
No	31
Yes	49
I don't know	21

NOTE: All percentages were rounded to the nearest integer.

48. Please indicate which approach comes closest to describing how your school currently approaches teaching science in grades 6–8? (*n* = 332)

Model	Weighted Percentage
Integrated or spiraled model: Students are exposed to a combination of earth, space, life, and physical sciences at each grade level.	61
Traditional discipline or topic-specific model: Topics are grouped together within grade level roughly by discipline (e.g., earth and space science in 6th grade, life science in 7th grade, and physical science in 8th grade).	39

NOTE: All percentages were rounded to the nearest integer.

49. If your school switched from a traditional discipline or topic-specific model to an integrated or spiraled approach, did teachers go through professional development to support them in incorporating this change? (*n* = 219)

Response	Weighted Percentage
No	19
Yes	29
I don't know	11
N/A—My school did not switch models during my time as a teacher	42

NOTE: All percentages were rounded to the nearest integer.

50. Indicate your agreement or disagreement with the following statements. (*n* = 1,465)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
I have enough classroom time to teach science to my students.	28	24	31	17
I have enough planning time to prepare to teach science to my students.	28	28	29	15
My students have adequate exposure to science content relative to ELA and mathematics.	22	29	35	15

NOTE: All percentages were rounded to the nearest integer.

Professional Learning Supports

51. This school year (2019–2020), how often have you participated in the following types of professional learning activities? (*n* = 5,910)

Professional Learning Activity	Weighted Percentage				
	Never	1 to 3 Times per Year	4 to 6 Times per Year	1 to 3 Times per Month	Weekly or More Often
Workshops or trainings focused on [ELA/math/science] teaching	21	55	16	6	2
Workshops or trainings focused on use of my main [ELA/math/science] materials	35	49	10	5	1
General (not subject-specific) workshops or trainings	10	43	28	15	4
Coaching focused on my [ELA/math/science] teaching	51	31	9	6	3
Coaching focused on use of my main [ELA/math/science] materials	53	31	7	6	3
Collaborative learning with other teachers (e.g., professional learning communities) focused on [ELA/math/science] teaching	14	26	15	18	27
Collaborative learning with other teachers (e.g., professional learning communities) focused on use of my main [ELA/math/science] instructional materials	22	26	13	17	22
Online learning I access on my own	20	35	16	16	13
Other in-person trainings that I access on my own	79	13	4	2	2

NOTE: All percentages were rounded to the nearest integer.

52. Please indicate the portion of time in each type of professional development (PD) activity for which you had substantive conversations with the professional development trainer and/or other teachers about using your main materials to support student learning. (n = 5,096)

Professional Development Activity	Weighted Percentage			
	None of the Time	Almost None of the Time	Less Than Half of the Time	About Half of the Time
Workshops or trainings focused on use of my main [ELA/math/science] materials	9	22	40	30
Coaching focused on use of my main [ELA/math/science] materials	8	22	43	28
Collaborative learning with other teachers (e.g., professional learning communities) focused on use of my main [ELA/math/science] instructional materials	5	15	33	46

NOTE: All percentages were rounded to the nearest integer.

53. This school year (2019–2020), to what extent have the professional learning activities in which you participated helped you improve your use of your main materials? (n = 5,831)

Professional Learning Activity	Weighted Percentage			
	Not at All	To a Small Extent	To a Moderate Extent	To a Great Extent
Workshops or trainings focused on [ELA/math/science] teaching	7	40	39	14
Workshops or trainings focused on use of my main [ELA/math/science] materials	8	39	38	15
General (not subject-specific) workshops or trainings	15	41	35	9
Coaching focused on my [ELA/math/science] teaching	8	36	39	17
Coaching focused on use of my main [ELA/math/science] materials	10	35	38	16
Collaborative learning with other teachers (e.g., professional learning communities) focused on [ELA/math/science] teaching	5	23	41	31
Collaborative learning with other teachers (e.g., professional learning communities) focused on use of my main [ELA/math/science] instructional materials	5	24	40	31
Online learning I access on my own	11	34	37	19
Other (specified) in-person trainings that I access on my own	4	26	38	32

NOTE: All percentages were rounded to the nearest integer.

54. Indicate your agreement or disagreement with the following statements about your professional learning activities during this school year (2019–2020). The professional learning activities in which I've participated this school year (2019–2020) helped me: (n = 5,905)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Use my instructional materials more effectively to meet student needs	6	12	56	26
Engage in instructional practices that more effectively meet student needs	4	9	58	29
Address my own mindsets and biases about student achievement	10	17	54	19
Address the needs of students below grade level	8	18	52	22
Use data effectively to improve instruction	8	16	51	25
Better understand the subject area(s) I teach	9	15	52	23

NOTE: All percentages were rounded to the nearest integer.

55. Since the end of last school year (2018–2019), how many hours did you spend in professional learning activities related to the following topics? ($n = 5,901$)

Statement	Weighted Percentage				
	0 Hours	1–5 Hours	6–10 Hours	11–20 Hours	More Than 20 Hours
Understanding my state standards in [ELA/math/science]	18	47	19	9	7
Developing my knowledge of content in [ELA/math/science]	15	39	22	11	14
Observing other teachers' lessons (in person or on video) that model instruction aligned to the standards in [ELA/math/science]	43	43	8	3	2
Receiving feedback from observations on my [ELA/math/science] lessons	32	56	8	3	1
Learning how to implement my main instructional materials	20	42	19	9	10
Modifying my main instructional materials so that they will better align to the standards in [ELA/math/science]	19	38	21	12	11
Modifying my main instructional materials to meet the needs of students below grade level	16	39	20	13	12
Modifying my main instructional materials to provide culturally relevant instruction	34	38	14	8	6
Analyzing student work to determine whether it met the expectations of the standards in [ELA/math/science]	17	35	21	12	14
Learning instructional strategies that support my students in meeting the demands of the [ELA/math/science] standards	13	39	24	14	10

NOTE: This question was adapted from TNTP, 2018. All percentages were rounded to the nearest integer.

56. Since the end of last school year (2018–2019), can you estimate roughly how many hours of professional development you received altogether that were focused on your [ELA/math/science] teaching? ($n = 5,896$)

Time	Weighted Percentage
0 hours	7
Less than 8 hours	30
8–16 hours (i.e., 1–2 days)	21
17–32 hours (i.e., 3–4 days)	19
33–48 hours (i.e., 5–6 days)	11
49–64 hours (i.e., 7–8 days)	6
More than 64 hours (i.e., more than 8 days)	7

NOTE: All percentages were rounded to the nearest integer.

Teacher Preparation Programs

57. How long ago did you complete your formal teacher preparation program? ($n = 5,880$)

Response	Weighted Percentage
In the last five years (2014 or later)	10
More than five years ago	86
N/A—I did not complete a formal teacher preparation program	4

NOTE: All percentages were rounded to the nearest integer.

58. What kind of preparation did you primarily receive before becoming a classroom teacher? (*n* = 721)

Response	Weighted Percentage
I went through a university-run teacher preparation program.	77
I went through a district- or charter management organization (CMO)–run teacher preparation program.	10
I went through a teacher preparation program that was run by an entity besides a university, district, or CMO.	11
Other (please specify)	3

NOTE: All percentages were rounded to the nearest integer.

59. Please select the type of program through which you were prepared to teach. (*n* = 721)

Response	Weighted Percentage
Traditional teacher preparation program	71
Alternative certification program	28
I don't know	1

NOTE: All percentages were rounded to the nearest integer.

60. Which of the following did your program emphasize more (pick one)? (*n* = 721)

Response	Weighted Percentage
My program emphasized how to develop my own lessons and unit plans from scratch.	31
My program emphasized curriculum literacy, focusing on how to skillfully use and modify curricula provided to me.	10
My program emphasized both of these approaches equally.	50
My program emphasized neither of these approaches.	9

NOTE: All percentages were rounded to the nearest integer.

61. You indicated that your program emphasized curriculum literacy. Did courses in your program provide you with practice in using or modifying specific curriculum materials? (*n* = 415)

Response	Weighted Percentage
No	35
Yes	65

NOTE: All percentages were rounded to the nearest integer.

62. Indicate your agreement or disagreement with the following statements about your teaching preparation program (including practicum/internship). (n = 720)

Response	Weighted Percentage					I Don't Remember or N/A
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	Neutral	
My program prepared me to identify the strengths and weaknesses of curriculum materials	11	22	28	26	12	1
My program provided adequate support on how to use curricula.	7	13	37	24	18	1
My program provided adequate support on how to modify curricula to meet students' needs.	5	14	37	28	16	0
The amount of clinical training I received (i.e., teaching internship or residency) was adequate.	4	9	27	49	9	2
The mentor teacher(s) who supported me during my clinical training (i.e., teaching internship or residency) was effective in helping me improve.	3	5	21	64	6	1
My program offered content-specific coaching for the subject(s) I teach.	8	10	33	35	12	2
My program helped me build content-specific knowledge for the subject(s) I teach.	6	9	33	38	12	1
My program spent too much time on helping me create lessons from scratch as opposed to using curriculum materials.	15	13	26	21	23	1
I wish I had gotten more classroom teaching experience during my teacher preparation.	17	17	19	25	22	1

NOTE: All percentages were rounded to the nearest integer.

Teacher Knowledge and Beliefs

Standards-Aligned Instructional Content and Approaches

English Language Arts

63. Which of the following approaches for selecting reading texts aligns with your state's ELA and literacy standards? (n = 2,411)

Approaches	Weighted Percentage		
	No	Yes	I Don't Know
Select abridged or adapted versions of complex texts for students below grade level	18	51	31
Select grade-level texts that all students read as a class	10	79	11
Select texts for individual students based on their reading level	14	73	13
Select texts for a class based on qualitative factors, such as knowledge demands and quantitative factors, such as word and sentence length	16	54	30

NOTE: This question was adapted from survey questions used in Kaufman, Opfer, Bongard, and Pane, 2018; and Shanahan and Duffett, 2013. All percentages were rounded to the nearest integer.

64. Which of the following types of writing assignments align with your state’s ELA and literacy standards? (n = 2,412)

Types of Assignments	Weighted Percentage		
	No	Yes	I Don't Know
Write an opinion piece or argument on a topic or text, supporting a point of view with reasons and sufficient evidence	3	94	2
Write an informative/explanatory text that develops a topic with relevant details and other information	2	95	3
Write a creative fictional scene that depicts characters and/or experiences in vivid detail	29	60	11
Write a narrative to develop real or imagined experiences with descriptive details and clear event sequences	7	87	5
Write a play about real or imagined characters that conveys a larger idea about the world	54	25	21

NOTE: All percentages were rounded to the nearest integer.

65. To what extent do your state standards focus on the following types of vocabulary instructions? (n = 2,410)

Types of Vocabulary Instructions	Weighted Percentage				
	Not At All	To a Slight Extent	To a Moderate Extent	To a Great Extent	I Don't Know
Teach words related to a specific content area or text being covered in class (e.g., teaching “magma” when reading a text about volcanoes)	2	10	32	52	4
Teach words students are likely to encounter when reading in a variety of content areas that do not have content-specialized definitions (e.g., “establish” and “verify”)	2	11	35	47	5

NOTE: This question was adapted from Shanahan and Duffett, 2013. All percentages were rounded to the nearest integer.

Math

66a. Which of the following major topics should be emphasized in the kindergarten mathematics class(es) you teach, according to your state standards for mathematics? (n = 263)

Topics	Weighted Percentage
Compare numbers	86
Tell and write time from analog and digital clocks to the nearest five minutes using a.m. and p.m.	4
Develop understanding of fractions as numbers	5
Understand the meaning of addition and subtraction	86
I don't know	2

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

66b. Which of the following major topics should be emphasized in the 1st grade mathematics class(es) you teach, according to your state standards for mathematics? (n = 285)

Topics	Weighted Percentage
Add and subtract within 20	95
Measure lengths indirectly and by iterating length units	56
Extend understanding of fraction equivalence and ordering	10
Identify arithmetic patterns (including patterns in the addition or multiplication tables) and explain them using properties of operations	39
I don't know	4

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

66c. Which of the following major topics should be emphasized in the 2nd grade mathematics class(es) you teach, according to your state standards for mathematics? ($n = 275$)

Topics	Weighted Percentage
Identify line of symmetry in two-dimensional figures	29
Understand place value	96
Apply and extend previous understandings of multiplication and division to multiply and divide fractions	8
Represent and solve problems involving addition	86
I don't know	3

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66d. Which of the following major topics should be emphasized in the 3rd grade mathematics class(es) you teach, according to your state standards for mathematics? ($n = 301$)

Topics	Weighted Percentage
Multiply and divide within 100	88
Display numerical data in plots on a number line, including dot plots, histograms, and box plots	55
Develop understanding of fractions as numbers	88
Understand the meaning of addition and subtraction	77
I don't know	0

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66e. Which of the following major topics should be emphasized in the 4th grade mathematics class(es) you teach, according to your state standards for mathematics? ($n = 277$)

Topics	Weighted Percentage
Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates	14
Generalize place value understanding for multidigit whole numbers	91
Extend understanding of fraction equivalence and ordering	92
Understand ratio concepts and use ratio reasoning to solve problems	15
I don't know	2

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66f. Which of the following major topics should be emphasized in the 5th grade mathematics class(es) you teach, according to your state standards for mathematics? ($n = 256$)

Topics	Weighted Percentage
Apply and extend previous understandings of multiplication and division to multiply and divide fractions	95
Understand the place value system	89
Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation	30
Recognize and draw shapes having specific attributes, such as a given number of angles or a given number of equal faces	60
I don't know	2

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66g. Which of the following major topics should be emphasized in the 6th grade mathematics class(es) you teach, according to your state standards for mathematics? ($n = 239$)

Topics	Weighted Percentage
Understand ratio concepts and use ratio reasoning to solve problems	88
Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points	46
Perform operations with numbers expressed in scientific notation	26
Apply and extend previous understandings of arithmetic to algebraic expressions	75
I don't know	6

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66h. Which of the following major topics should be emphasized in the 7th grade mathematics class(es) you teach, according to your state standards for mathematics? ($n = 211$)

Topics	Weighted Percentage
Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane	39
Apply and extend previous understanding of operations with fractions to add, subtract, multiply, and divide rational numbers	90
Use properties of operations to generate equivalent expressions	76
Generate the prime factorization of numbers to solve problems	24
I don't know	2

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66i. Which of the following major topics should be emphasized in the 8th grade mathematics class(es) you teach, according to your state standards for mathematics? ($n = 235$)

Topics	Weighted Percentage
Represent and analyze quantitative relationships between dependent and independent variables	72
Define, evaluate, and compare functions	85
Understand and apply the Pythagorean Theorem	81
Understand that a set of data collected to answer a statistical question has a distribution, which can be described by its center, spread, and overall shape	39
I don't know	4

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66j. Which of the following major topics should be emphasized in the algebra course(s) you teach, according to your state standards for mathematics? ($n = 2,018$)

Topics	Weighted Percentage
N/A—I do not teach algebra	58
Create equations and inequalities in one variable and use them to solve problems	80
Solve quadratic equations in one variable	44
Apply properties of operations as strategies to add, subtract, factor, and expand linear expression with rational coefficients	59
Use polar coordinates to describe locations on a plane	15
I don't know	9

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

66k. Which of the following major topics should be emphasized in the geometry course(s) you teach, according to your state standards for mathematics? ($n = 2,017$)

Topics	Weighted Percentage
N/A—I do not teach geometry	67
Experiment with transformations on the coordinate plane	60
Identify the slope and the intercept of a linear model in the context of the data	40
Explain and use the relationship between the sine and cosine of complementary angles	30
Derive the formula for the sum of a finite geometric series and use the formula to solve problems	13
I don't know	28

NOTE: This question was adapted from a survey question used in Kaufman, Opfer, Bongard, and Pane, 2018. All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

67. Content standards often are intended to address three types of student learning (sometimes called *aspects of rigor*) in relation to Common Core State Standards. Examine each standard carefully and check which of these types of learning or aspects of rigor a teacher should particularly target in a lesson focused on this standard. ($n = 2,011$)

Standard	Weighted Percentage			
	Conceptual Understanding	Procedural Skill and Fluency	Application	I Don't Know
Fluently add and subtract within 20 using mental strategies; by end of 2nd grade, know from memory all sums of two-digit numbers	15	63	17	5
Relate counting to addition and subtraction (e.g., by counting on 2 to add 2)	46	27	22	5
Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction	30	33	29	8
Interpret products of whole numbers (e.g., interpret 5×7 as the total number of objects in five groups of seven objects)	49	17	24	10
Solve linear equations in one variable	19	43	22	16
Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.	44	21	20	16

NOTE: All percentages were rounded to the nearest integer.

Science Instruction

68. New science standards adopted in many states focus on three-dimensional learning as part of science instruction. Do your state standards focus on three-dimensional learning? ($n = 1,458$)

Response	Weighted Percentage
No	18
Yes	28
I don't know	54

NOTE: All percentages were rounded to the nearest integer.

69. Which one of the following options best describes the organizing principle of the NGSS, three-dimensional learning? (*n* = 594)

Option	Weighted Percentage
Teaching concepts from three perspectives: a disciplinary perspective, a cross-cutting perspective, and through scientific practices	22
Addressing core disciplinary concepts, cross-cutting concepts, and science practices with equal time and intensity	8
Using scientific practices, cross-cutting concepts, and core disciplinary ideas to explain phenomena	57
Engaging students in scientific practices that spiral across three grade levels and across a range of disciplinary ideas and cross-cutting concepts	13

NOTE: All percentages were rounded to the nearest integer.

70. Which one of the following options best represents a three-dimensional science standard? (*n* = 595)

Option	Weighted Percentage
Students should plan and conduct a simple investigation, using equipment or tools to gather data that extend their senses	27
Students should understand that species evolve over time based on genetics, resources available, and fitness	3
Students should understand that a population consists of all individuals of a species that occur together at a given place and time	1
Students should construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions	69

NOTE: All percentages were rounded to the nearest integer.

71. Which of the following science tasks provides the best opportunity for students to engage in three-dimensional learning? (*n* = 595)

Task	Weighted Percentage
Creating clay models to represent the stages of mitosis while examining the details of cell division	34
Simulating the process that chromosomes undergo during cell division by using pop-it beads to understand cell division	24
Analyzing slide images of healthy and cancer tissues from different patients to draw conclusions about the patients that have cancer	42

NOTE: All percentages were rounded to the nearest integer.

72. Which of the following best represents classroom science lessons that are well aligned with three-dimensional science instruction? (*n* = 594)

Option	Weighted Percentage
A different, commonly experienced phenomenon is used at the beginning of every lesson to make the lesson relevant to students	5
Phenomena are brought into lessons after students develop or are being introduced to the science ideas so students can apply what they learned to their understanding of those phenomena	18
Phenomena are used as hooks at the beginning of lessons to get students to engage more deeply with science concepts	38
The focus of the lessons is to support students in making sense of and explaining phenomena in order to develop their scientific ideas	39

NOTE: All percentages were rounded to the nearest integer.

73. The following three earth science ideas address earth and the solar system in each of the following three separate grade bands: K–5, 6–8, and 9–12. Please order these ideas from 1 to 3 according to which would come in the earliest grade band to the latest grade band. Thus, 1 = K–5 grade idea; 2 = 6–8 grade idea; and 3 = 9–12 grade idea. ($n = 1,454$)

Earth Science Ideas	Weighted Percentage		
	K–5 Grade Idea	6–8 Grade Idea	9–12 Grade Idea
The solar system contains many varied objects held together by gravity.	62	30	8
The earth’s orbit and rotation, and the orbit of the moon around the earth, cause observable patterns.	34	50	16
Changes in the earth’s tilt and orbit cause climate changes, such as ice ages.	4	21	76

NOTE: All percentages were rounded to the nearest integer.

74. The following three life science ideas address structure and function in each of the following three separate grade bands: K–5, 6–8, and 9–12. Please order these ideas from 1 to 3 according to which would come in the earliest grade band to the latest grade band. Thus, 1 = K–5 grade idea; 2 = 6–8 grade idea; and 3 = 9–12 grade idea. ($n = 1,451$)

Life Science Ideas	Weighted Percentage		
	K–5 Grade Idea	6–8 Grade Idea	9–12 Grade Idea
Systems of specialized cells within organisms help perform essential functions of life. Any one system is made up of numerous parts.	12	58	31
All living things are made up of cells. In organisms, cells work together to form tissue and organs that are specialized for particular body functions.	68	24	8
Organisms have both internal and external macroscopic structures that allow for growth, survival behavior, and reproduction.	20	19	61

NOTE: All percentages were rounded to the nearest integer.

75. The following three physical science ideas address the relationship between energy and forces in each of the following three separate grade bands: K–5, 6–8, and 9–12. Please order these ideas from 1 to 3 according to which would come in the earliest grade band to the latest grade band. Thus, 1 = K–5 grade idea; 2 = 6–8 grade idea; and 3 = 9–12 grade idea. ($n = 1,451$)

Physical Science Ideas	Weighted Percentage		
	K–5 Grade Idea	6–8 Grade Idea	9–12 Grade Idea
When objects collide, contact forces transfer energy so as to change the objects’ motion.	43	44	13
When two objects interact, each one exerts a force on the other, and these forces can transfer energy between them.	36	47	17
Fields contain energy that depends on the arrangement of objects in the field.	21	9	69

NOTE: All percentages were rounded to the nearest integer.

Teacher Beliefs

76. Indicate your agreement or disagreement with the following statements about your state's standards. ($n = 5,878$)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Teaching and learning that is aligned to the [ELA/math/science] standards prepares students for their futures.	2	9	53	37
Teaching and learning that is aligned to the [ELA/math/science] standards gives students a deep understanding of the subject area.	2	11	51	36
Teaching and learning that is aligned to the [ELA/math/science] standards makes class more engaging for students.	4	24	47	24
The [ELA/math/science] standards are too challenging for my students.	19	36	35	10
The [ELA/math/science] standards make teaching less enjoyable.	18	39	37	7
My students need something different than what is outlined in the [ELA/math/science] standards.	12	28	47	14
My state's standards in [ELA/math/science] make it difficult for students to learn basic skills in [ELA/math/science].	19	41	30	10
My state's standards in [ELA/math/science] provide educators a manageable number of topics to teach in a school year.	12	31	45	12
I find myself skipping some standards-aligned [ELA/math/science] content in my instruction.	22	25	42	10
The standards in [ELA/math/science] help me identify essential material to teach my students.	3	12	57	29
The standards in [ELA/math/science] help my students achieve higher scores on district or state assessments.	7	28	50	15

NOTE: This question was adapted from TNTP, 2018. All percentages were rounded to the nearest integer.

School Culture

77. Indicate your agreement or disagreement with the following statements about your experiences at your school this school year (2019–2020). ($n = 5,878$)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
People in this school are eager to share information about what does and does not work.	3	9	42	45
Making mistakes is considered part of the learning process in this school.	3	12	44	41
In this school, teachers feel comfortable trying new, research-based teaching approaches.	4	13	47	36
In this school, it is easy to speak up about what is on my mind.	9	20	44	27
People in this school are usually comfortable talking about problems and disagreements about teaching and learning.	7	18	46	29
Teachers in this school frequently observe other teachers.	32	33	26	9
Teachers in this school are comfortable being observed (even if the observation is unannounced).	8	21	50	21

NOTE: This question was adapted from Elmore, Forman, and Stosich, 2016. All percentages were rounded to the nearest integer.

American Instructional Resources Surveys: School Leader Survey Results

School Leader and Student Characteristics

1. With which of the following do you identify? (*n* = 1,360)

Race/Ethnicity	Weighted Percentage
American Indian or Alaska Native	1
Asian	1
Black or African American	13
Hispanic, Latino, or Spanish origin	7
Native Hawaiian or other Pacific Islander	0
White	79
Other	0
Decline to respond	2

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

2. Approximately what percentage of the students at your school are ELLs? (*n* = 1,359)

Percentage of ELL Students	Weighted Percentage
10 or less	64
11–24	19
25–49	12
50–74	4
75–100	2

NOTE: All percentages were rounded to the nearest integer.

3. Approximately, what percentage of the students at your school have an Individualized Education Program (IEP) and/or 504 plan? (*n* = 1,359)

Percentage IEP Students	Weighted Percentage
10 or less	18
11–24	68
25–49	13
50–74	1
75–100	0

NOTE: All percentages were rounded to the nearest integer.

4. With which of the following do you identify? (*n* = 1,413)

Gender	Weighted Percentage
Male	49
Female	51

NOTE: All percentages were rounded to the nearest integer.

5. Percentage of Respondents by School Enrollment of Black Students (*n* = 1,300)

Percentage of Black Students (School)	Weighted Percentage
10 or less	61
11–24	18
25–49	11
50–74	5
75–100	5

NOTE: Information on school-level enrollments was obtained from the 2018–2019 NCES CCD.

6. Percentage of Respondents by School Enrollment of Hispanic/Latino Students (*n* = 1,334)

Percentage of Hispanic/Latino Students (School)	Weighted Percentage
10 or less	46
11–24	23
25–49	14
50–74	9
75–100	8

NOTE: Information on school-level enrollments was obtained from the 2018–2019 NCES CCD.

School Leader Background

7. This school year (2019–2020), what grade(s) are included in the school you lead? (*n* = 1,420)

Grades Taught	Weighted Percentage
Kindergarten	55
Grade 1	56
Grade 2	55
Grade 3	55
Grade 4	55
Grade 5	52
Grade 6	39
Grade 7	36
Grade 8	36
Grade 9	29
Grade 10	29
Grade 11	29
Grade 12	28
Ungraded (including special education students aged 18–22)	5
Other	16

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

8. What is the highest degree that you have earned? ($n = 1,360$)

Highest Degree Earned	Weighted Percentage
Associate's degree	0
Bachelor's degree (B.A., B.S., etc.)	1
Master's degree (M.A., M.A.T., M.B.A., M.Ed., M.S., etc.)	46
Educational specialist or professional diploma (at least one year beyond master's level)	30
Doctorate or first professional degree (Ph.D., Ed.D., M.D., L.L.B., J.D., D.D.S.)	23
Do not have a degree	0

NOTE: All percentages were rounded to the nearest integer.

9. Including this school year (2019–2020), how long have you worked as a principal? ($n = 1,360$)

Years of Experience	Weighted Percentage			
	Total	In Current State	In Current District	In Current School
0–5 years	24	26	37	52
6–10 years	37	37	36	33
11–15 years	24	23	19	12
16–20 years	10	10	7	2
21 or more years	5	3	2	1

NOTE: This question instructed respondents to round to the nearest whole number.

COVID-19 Items

10. Please estimate the proportion of students in your school who have access to the internet at home. ($n = 1,420$)

Estimated Percentage of Students with Access to Internet at Home	Weighted Percentage
None or almost none	0
Approximately 25%	4
Approximately 50%	17
Approximately 75%	37
Nearly all or all	41
I don't know	1

NOTE: All percentages were rounded to the nearest integer.

11. Did your school building close to in-person instruction because of the COVID-19 pandemic? ($n = 1,420$)

Response	Weighted Percentage
No	1
Yes	99

NOTE: All percentages were rounded to the nearest integer.

12. On what date did your school close? ($n = 1,403$)

Dates	Weighted Percentage
Before or on March 12, 2020	4
March 13, 2020–March 19, 2020	81
March 20, 2020–March 31, 2020	13
On or after April 1, 2020	1

NOTE: All percentages were rounded to the nearest integer.

13. Has your school reopened yet? ($n = 1,420$)

Response	Weighted Percentage
No	100
Yes	0

NOTE: All percentages were rounded to the nearest integer.

14. For the majority of the time your school has been closed, which of the following best describes the situation? ($n = 1,408$)

Category	Weighted Percentage
Schoolwork was not sent home to students	2
Schoolwork was sent home to students, but completing the work was optional	25
Schoolwork was sent home to students with the expectation that students would complete the work	73

NOTE: All percentages were rounded to the nearest integer.

15. Which of the following has been provided to your students during the time your school has been closed because of COVID-19? ($n = 1,385$)

Category	Weighted Percentage
Distance learning plan	77
Distance learning plan each week	76
Digital device (e.g., chromebook or tablet) for all students or those who did not have one	79
Hot spot for internet access	48
Information about how to access free or discounted internet	82
Suggestions and/or resources for student learning activities	89
None of the above	0

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to "select all that apply." Percentages will not sum to 100 percent.

16. What learning materials have been provided during the time your school has been closed? ($n = 1,409$)

Category	Weighted Percentage			
	Hard Copies Only	Online Materials Only	Both Hard Copies and Online Materials	N/A
Mathematics	3	33	64	0
ELA	3	33	64	0
Natural science	3	46	46	5
Social science	4	45	46	6
Art and/or music	4	58	29	8
Physical education	4	65	23	9
World languages	1	32	18	48
Career or technical education	1	30	17	52

NOTE: All percentages were rounded to the nearest integer.

17. Were teachers expected to grade the work being completed? ($n = 1,409$)

Category	Weighted Percentage
No	26
Yes	51
Varies based on class	22

NOTE: All percentages were rounded to the nearest integer.

18. Which of the following best describes your expectations regarding how teachers grade assignments during the time schools are closed? (*n* = 1,041)

Category	Weighted Percentage
Teachers will be more lenient in grading assignments than they were prior to when schools were closed	82
Teachers will use the same standards to grade assignments as they did prior to when schools were closed	18
Teachers will use more-strict standards to grade assignments than they did prior to when schools were closed	0

NOTE: All percentages were rounded to the nearest integer.

19. Since your school has closed, approximately how many hours of training has your district or school offered to teachers to help them deliver distance learning? (*n* = 1,407)

Category	Weighted Percentage
0 hours	17
1–5 hours	28
6–10 hours	21
11–20 hours	17
21–30 hours	6
31 or more hours	10

NOTE: All percentages were rounded to the nearest integer.

Curriculum Materials

EdReports

20. Have you ever heard of EdReports? (*n* = 1,419)

Response	Weighted Percentage
No	54
Yes	46

NOTE: This question was adapted from the 2017 RAND Measurement and Learning Survey (Doss and Johnston, 2018). All percentages were rounded to the nearest integer.

21. To the best of your knowledge, has your district used EdReports to select, adapt, or implement curriculum? (*n* = 650)

Response	Weighted Percentage
No	34
Yes	29
I don't know	37

NOTE: This question was adapted from the 2017 RAND Measurement and Learning Survey (Doss and Johnston, 2018). All percentages were rounded to the nearest integer.

22. Have you used EdReports to select, modify, or implement curriculum? (*n* = 650)

Response	Weighted Percentage
No	68
Yes	32

NOTE: This question was adapted from the 2017 RAND Measurement and Learning Survey (Doss and Johnston, 2018). All percentages were rounded to the nearest integer.

23. Have ELA or mathematics materials from Achievethecore.org ever been provided to teachers at your school as a recommendation or requirement? (*n* = 1,419)

Response	Weighted Percentage
No	77
Yes	23

NOTE: All percentages were rounded to the nearest integer.

English Language Arts Curriculum Materials

24. Select the following ELA curricula that are provided by your school or district, either as a requirement or recommendation, this school year (2019–2020).

24a. Top Ten Elementary School ELA Curriculum Materials (*n* = 483)

Curriculum Name	Weighted Percentage
The Fountas & Pinnell Classroom (Heinemann)	33
Lucy Calkins Unit of Study	31
Curricula my school or district created	26
Journeys (Houghton Mifflin Harcourt)	22
Foundations (Wilson Language Training)	21
Curricula teachers create themselves	20
Wilson Foundations (Wilson Language Training Corporation)	19
Benchmark Advance or Literacy (Benchmark Education)	15
EngageNY (New York State Education Department)	15
Leveled Reader Series	14

NOTE: This question was adapted from the 2017 RAND Measurement and Learning Survey (Doss and Johnston, 2018). This table presents the top ten most-selected instructional materials. Responses for “Other” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed.

24b. Top Ten Middle School ELA Curriculum Materials (*n* = 653)

Curriculum Name	Weighted Percentage
Curricula teachers create themselves	32
Curricula my school or district created	31
EngageNY (New York State Education Department)	20
CommonLit (CommonLit)	16
Journeys (Houghton Mifflin Harcourt)	16
Edgenuity (Edgenuity, Inc.)	15
Lucy Calkins Unit of Study	15
Collections–2017 (Houghton Mifflin Harcourt)	13
Holt McDougal Literature (Houghton Mifflin Harcourt)	12
StudySync (McGraw-Hill Education)	11

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed.

24c. Top Ten High School ELA Curriculum Materials (*n* = 264)

Curriculum Name	Weighted Percentage
Curricula teachers create themselves	50
Curricula my school or district created	50
Edgenuity (Edgenuity, Inc.)	30
Holt McDougal Literature (Houghton Mifflin Harcourt)	23
Pearson Literature–2015 (Pearson)	16
Collections–2017 (Houghton Mifflin Harcourt)	15
SpringBoard ELA Common Core Edition–2018 (College Board)	15
CommonLit (CommonLit)	13
Collections–2015 (Houghton Mifflin Harcourt)	9
Prentice Hall Literature: Timeless Voices, Timeless Themes (Prentice Hall)	9

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed.

25. Beyond curricula, please select the additional instructional materials that are required or recommended by your school or district for ELA instruction this school year (2019–2020). (*n* = 1,399)

Additional Instructional Material	Weighted Percentage
Kahoot!	51
Khan Academy	44
Newsela	42
BrainPOP	41
Quizlet	32
Flipgrid	31
Scholastic News	31
iReady	29
Accelerated Reader (Renaissance)	26
RAZ Kids	25

NOTE: This table presents the top ten most-selected additional instructional materials. Responses for “Other” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use additional instructional materials.

Math Curriculum Materials

26. Select the following math curricula that are provided by your school or district, either as a requirement or recommendation, this school year (2019–2020).

26a. Top Ten Elementary School Math Curriculum Materials (n = 485)

Curriculum Name	Weighted Percentage
EngageNY (New York State Education Department)	28
Curricula my school or district created	21
Go Math (Houghton Mifflin Harcourt)	20
Ready (Curriculum Associates)	18
enVision Math 2.0–2016 (Pearson)	18
Eureka Math (Great Minds)	17
Curricula teachers create themselves	16
enVision Math–2020 (Pearson)	14
Zearn (Zearn, Inc.)	13
Everyday Math (McGraw Hill Education)	11

NOTE: This question was adapted from the 2017 RAND Measurement and Learning Survey (Doss and Johnston, 2018). This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed.

26b. Top Ten Middle School Math Curriculum Materials (n = 653)

Curriculum Name	Weighted Percentage
EngageNY (New York State Education Department)	24
Curricula my school or district created	23
Curricula teachers create themselves	23
Go Math (Houghton Mifflin Harcourt)	20
Eureka Math (Great Minds)	18
enVision Math 2.0–2016 (Pearson)	17
Ready (Curriculum Associates)	16
Big Ideas Math (Big Ideas Learning, LLC)	14
Glencoe Math (McGraw-Hill Education)	14
enVision Math–2020 (Pearson)	10

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” and “N/A” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent. Respondents were prompted to skip a question row if they did not use a resource. There may be some respondents who did not provide answers to this question because they do not use the materials listed.

26c. Top Ten High School Math Curriculum Materials ($n = 262$)

Curriculum Name	Weighted Percentage
Curricula teachers create themselves	36
Curricula my school or district created	36
Pearson Traditional (Pearson)	15
Pearson Integrated (Pearson)	14
Glencoe Traditional (McGraw-Hill Education)	14
Big Ideas Traditional (Big Ideas Learning, LLC)	8
SpringBoard Traditional (College Board)	8
HMH Integrated (Houghton Mifflin Harcourt)	8
Agile Mind (Agile Mind)	7
EngageNY (New York State Education Department)	7

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” are not included in this list. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed.

27. Beyond curricula, please select the additional instructional materials that are required or recommended by your school or district for math instruction this school year (2019–2020). ($n = 1,397$)

Additional Instructional Material	Weighted Percentage
Khan Academy	61
Kahoot!	46
BrainPOP	41
Quizlet	36
IXL Math	32
i-Ready (Curriculum Associates)	26
MobyMax	22
Prodigy	21
YouTube	20
Desmos	16

NOTE: Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use additional instructional materials. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

Science Curriculum Materials

28. Select the following science curricula that are provided by your school or district, either as a requirement or recommendation, this school year (2019–2020).

28a. Top Ten Elementary Science Curriculum Materials ($n = 489$)

Curriculum Name	Weighted Percentage
Curricula my school or district created	25
Mystery Science (Mystery Science)	24
Curricula teachers create themselves	23
FOSS Next Generation K–8 (Delta Education)	23
STEMscopes (Accelerate Learning, Inc.)	19
Harcourt Science (Houghton Mifflin Harcourt)	12
McGraw-Hill Science (McGraw-Hill Education)	12
Amplify Science (Amplify)	11
ScienceFusion (Houghton Mifflin Harcourt)	10
Pearson Science (Pearson)	9

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

28b. Top Ten Middle School Science Curriculum Materials ($n = 652$)

Curriculum Name	Weighted Percentage
Curricula teachers create themselves	33
Curricula my school or district created	30
STEMscopes (Accelerate Learning, Inc.)	18
Glencoe Life Science (McGraw-Hill Education)	18
Pearson Science (Pearson)	16
Amplify Science (Amplify)	15
FOSS Next Generation K–8 (Delta Education)	15
Harcourt Science (Houghton Mifflin Harcourt)	13
FOSS Next Generation Middle School (Delta Education)	12
McGraw-Hill Science (McGraw-Hill Education)	10

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

28c. Top Ten High School Science Curriculum Materials ($n = 262$)

Curriculum Name	Weighted Percentage
Curricula my school or district created	55
Curricula teachers create themselves	49
HMH Science Dimensions (Houghton Mifflin Harcourt)	21
Next Generation Science Storylines units (Next Generation Science Storylines)	17
STEMscopes (Accelerate Learning, Inc.)	14
Inspire Science (McGraw-Hill Education)	13
Science Techbook (Discovery Education)	13
Issues and Science (Lab-Aids)	5
Science Education for Public Understanding Program (SEPUP) (Lab-Aids)	4
OpenStax (Rice University)	4

NOTE: This table presents the top ten most-selected instructional materials. Responses for “Other” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use the materials listed. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

29. Beyond curricula, please select the additional instructional materials that are required or recommended by your school or district for science instruction this school year (2019–2020). ($n = 1,403$)

Additional Instructional Material	Weighted Percentage
Kahoot!	51
BrainPOP	49
Khan Academy	46
Quizlet	40
Newsela	33
YouTube	32
MobyMax	19
ixl.com	17
Study Island	17
FOSS Equipment Kits (Delta Education)	15

NOTE: This table presents the top ten most-selected additional instructional materials. Responses for “Other” are not included in this list. Respondents were prompted to skip a question row if they did not use a resource. There might be some respondents who did not provide answers to this question because they do not use additional instructional materials. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

30. Is your school currently implementing the Next Generation Science Standards (NGSS)? ($n = 1,398$)

Response	Weighted Percentage
No	24
Yes	65
I don’t know	11

NOTE: All percentages were rounded to the nearest integer.

31. Please indicate which approach comes closest to describing how your school currently approaches teaching science in grades 6–8. ($n = 650$)

Model	Weighted Percentage
Integrated or spiraled model: Students are exposed to a combination of earth, space, life, and physical sciences at each grade level.	47
Traditional discipline or topic-specific model: Topics are grouped together within grade level roughly by discipline (e.g., earth and space science in 6th grade, life science in 7th grade, and physical science in 8th grade).	53

NOTE: All percentages were rounded to the nearest integer.

32. If your school switched from a traditional discipline or topic-specific model to an integrated or spiraled approach within your time as principal, did teachers go through professional development to support them in incorporating this change? (*n* = 300)

Response	Weighted Percentage
No	10
Yes	55
I don't know	5
N/A—My school did not switch models during my time as a principal.	29

NOTE: All percentages were rounded to the nearest integer.

33. Do administrators and/or science teacher leaders conducting teacher evaluations have training in observing an integrated approach to teaching science? (*n* = 300)

Response	Weighted Percentage
No	49
Yes	45
I don't know	6

NOTE: All percentages were rounded to the nearest integer.

34. Do administrators conducting teacher evaluations use a rubric specifically designed to observe science instruction (and not instruction in other subjects)? (*n* = 1,397)

Response	Weighted Percentage
No	89
Yes	10
I don't know	1

NOTE: All percentages were rounded to the nearest integer.

35. In your school, are teachers' required or recommended curricula and/or other instructional materials supported by any of the following resources (i.e., Is there written documentation connecting resources with materials or specific units/lessons within their materials)? (*n* = 1,409)

Support Type	Weighted Percentage		
	ELA	Math	Science
Pacing guides	75	75	66
Lesson plans	71	71	68
Documents showing connections among lessons and units	40	39	32
Online learning software for students	54	59	39
Classroom assessments	77	79	65
Benchmark assessments	74	75	50
Remediation activities for students who are below grade level	59	58	32
Advanced activities for students who need enrichment	42	43	29
List of potential resources to consult for additional instructional activities	40	39	35
Suggestions for how to anticipate or interpret student thinking	27	27	19
Resources to guide use of scaffolds for ELLs or activities to address language development	42	29	25
Software or other technology to support teachers' use or modification of ELA/math/science curricula	41	40	28
Curriculum-aligned observation tool	28	29	24
N/A—Teachers' required or recommended curricula and/or digital materials are not supported by any of these resources	2	2	7

NOTE: This question was adapted from the NECE Teacher Survey on Math Instructional Materials as used in Blazar et al., 2019. All percentages were rounded to the nearest integer.

36. Who is the primary decisionmaker about which instructional materials teachers use in their classroom each day? (*n* = 1,409)

Primary Decisionmaker	Weighted Percentage		
	ELA	Math	Science
Individual teachers in their own classrooms	11	12	15
Collaborative group(s) of teachers in my school system	41	40	41
Me and/or other school administrators	11	10	9
My district leaders	34	35	33
Someone else (please indicate who)	3	3	2

NOTE: All percentages were rounded to the nearest integer.

Perceptions of Main Materials

37. Indicate whether you disagree or agree with the following statements about your school's required or recommended curricula and/or other instructional materials for [ELA/math/science]. (*n* = 1,407)

	Weighted Percentage		
	ELA	Math	Science
Help students master my state's [ELA/math/science] standards	93	94	89
Cover content addressed by benchmark and districtwide assessments sufficiently	95	95	90
Cover content addressed by my state-mandated assessment sufficiently	94	95	90
Meet the needs of ELLs	84	78	72
Meet the needs of students with IEPs or 504 plans	82	82	79
Provide teachers with a manageable number of topics to teach in a school year	90	88	89
Are culturally relevant	86	78	77
Provide digital instructional materials for use by all students	85	86	78
Provide digital instructional materials for use by ELLs	76	75	67
Provide texts that are linguistically appropriate for ELLs	80	73	66
Provide differentiated (i.e., scaffolded) materials to meet the needs of different students	89	86	77

NOTE: Response choices for these items were "not applicable for students in my school," "strongly disagree," "somewhat disagree," "somewhat agree," and "strongly agree." We display the percentage of leaders who reported that they somewhat agree and strongly agree to measure agreement with these statements. Percentages will not sum to 100 percent.

Teacher Professional Learning

38. Thinking about this school year (2019–2020), how often has your district or school provided the following types of professional learning activities to [ELA/math/science] teachers? ($n = 1,375$)

Activity	Weighted Percentage					
	ELA		Math		Science	
	At Least Once a Year	At Least Once a Month	At Least Once a Year	At Least Once a Month	At Least Once a Year	At Least Once a Month
Workshops or trainings focused on [ELA/math/science] teaching and learning	91	19	93	16	81	7
Workshops or trainings focused on teachers' use of their [ELA/math/science] instructional materials	87	18	88	16	75	7
General (not subject-specific) workshops or trainings	92	23	93	21	82	14
Coaching focused on [ELA/math/science] instruction	85	27	82	23	63	10
Coaching focused on teachers' use of their [ELA/math/science] instructional materials	83	26	79	21	60	9
Collaborative learning with other teachers (e.g., professional learning communities) focused on [ELA/math/science] teaching	96	48	95	46	82	28
Collaborative learning with other teachers (e.g., professional learning communities) focused on using [ELA/math/science] instructional materials	94	44	92	43	80	27
Other	50	13	48	12	40	8

NOTE: Response choices for this item were "never," "1–3 times a year," "4–6 times per year," "1–3 times per month," and "1–3 times per week or more." We display the percentage of leaders that reported that they participated in professional learning activities at least once a year and at least once a month.

39. Please indicate whether the following professional learning activities for [ELA/math/science] teachers were provided by district/school staff or an external vendor from outside of your district. ($n = 1,370$)

Activity	Weighted Percentage					
	ELA		Math		Science	
	District/School	External Vendor	District/School	External Vendor	District/School	External Vendor
Workshops or trainings focused on [ELA/math/science] teaching and learning	78	22	77	23	80	20
Workshops or trainings focused on teachers' use of their [ELA/math/science] instructional materials	77	23	75	25	78	22
General (not subject-specific) workshops or trainings	88	12	86	14	86	14
Collaborative learning with other teachers (e.g., professional learning communities) focused on [ELA/math/science] teaching	88	12	87	13	90	10
Collaborative learning with other teachers (e.g., professional learning communities) focused on using [ELA/math/science] instructional materials	86	14	85	15	88	12

NOTE: All percentages were rounded to the nearest integer.

40. Relative to the support and instruction already provided to teachers (if any), how much more or less of each of the following resources do you think teachers need to support [ELA/math/science] instruction? (*n* = 1,367)

Resources	Weighted Percentage of School Leaders That Responded "A Lot More"		
	ELA	Math	Science
Workshops or trainings focused on [ELA/math/science] teaching	17	22	28
Workshops or trainings focused on teachers' use of their [ELA/math/science] instructional materials	16	17	25
General (not subject-specific) workshops or trainings	9	10	14
Coaching focused on [ELA/math/science] instruction	23	24	26
Coaching focused on teachers' use of their [ELA/math/science] instructional materials	19	20	23
Collaborative learning with other teachers (e.g., professional learning communities) focused on [ELA/math/science] teaching and learning	20	20	25
Collaborative learning with other teachers (e.g., professional learning communities) focused on teachers' use of their [ELA/math/science] instructional materials	20	19	24
Other	17	17	15

NOTES: Response choices for these items were "less," "no more or less," "a little more," and "a lot more." This table shows the weighted percentage of respondents indicating that "a lot more" resources are needed to support instruction. For this item, leaders were instructed to describe other professional learning activities they think teachers need to support instruction. The responses for "Other" in this section are the weighted percentages of leaders who provided a written response to this survey item.

School Leader Professional Learning

41. This school year (2019–2020), how often have you participated in professional learning activities specifically intended for school leaders (e.g., principals and assistant principals) or other administrators focused on the following topics? (*n* = 1,364)

Professional Learning Activity	Weighted Percentage				
	Never	1–3 Times per Year	4–6 Times per Year	1–3 Times per Month	1–3 Times per Week or More Often
ELA instruction	24	48	18	8	1
Mathematics instruction	26	50	17	7	1
Science instruction	44	41	9	5	1
Main instructional materials used by ELA teachers	35	43	14	7	1
Main instructional materials used by math teachers	37	45	12	6	1
Main instructional materials used by science teachers	49	39	7	5	1

NOTE: All percentages were rounded to the nearest integer.

42. This school year (2019–2020), taking into account all the professional development opportunities in which you participated, please estimate the following: (*n* = 1,363)

Professional Learning Activity	Weighted Average
Percentage of my professional development opportunities with other school leaders	47
Percentage of my professional development opportunities with my school's teachers	50

NOTE: All percentages were rounded to the nearest integer.

Benchmark Assessments

English Language Arts

43. Which benchmark assessments do your students take over the course of this school year (2019–2020) to assess their progress in ELA?

43a. Top Ten Elementary School ELA Benchmark Assessments ($n = 495$)

Benchmark Assessment	Weighted Percentage
District-created benchmark assessments	57
School-created benchmark assessments	41
State-created benchmark assessments	37
Fountas & Pinnell	24
iReady Diagnostic (Curriculum Associates)	23
MAP or Measures of Academic Progress (Northwest Evaluation Association)	21
iReady Assessments (Curriculum Associates)	19
Star Reading/Star Math (Renaissance Learning)	15
iReady Standards Mastery (Curriculum Associates)	12
aimswebPlus (Pearson)	11

NOTE: This table presents the top ten most-selected benchmark assessments. Responses for "Other" and "N/A" are not included in this list.

43b. Top Ten Secondary School ELA Benchmark Assessments ($n = 925$)

Benchmark Assessment	Weighted Percentage
District-created benchmark assessments	52
School-created benchmark assessments	50
State-created benchmark assessments	49
MAP or Measures of Academic Progress (Northwest Evaluation Association)	17
Star Reading/Star Math (Renaissance Learning)	17
iReady Diagnostic (Curriculum Associates)	16
iReady Assessments (Curriculum Associates)	13
Star Assessments (Renaissance)	13
ACT Aspire (ACT, Inc.)	12
Fountas & Pinnell	9

NOTE: This table presents the top ten most-selected benchmark assessments. Responses for "Other" and "N/A" are not included in this list.

Math

44. Which benchmark assessments do your students take over the course of this school year (2019–2020) to assess their progress in math?

44a. Top Ten Elementary School Math Benchmark Assessments ($n = 495$)

Benchmark Assessment	Weighted Percentage
District-created benchmark assessments	58
School-created benchmark assessments	41
State-created benchmark assessments	36
iReady Diagnostic (Curriculum Associates)	23
MAP or Measures of Academic Progress (Northwest Evaluation Association)	21
iReady Assessments (Curriculum Associates)	20
Star Reading/Star Math (Renaissance Learning)	13
iReady Standards Mastery (Curriculum Associates)	11
aimswebPlus (Pearson)	9
Star Assessments (Renaissance)	7

NOTE: This table presents the top ten most-selected benchmark assessments. Responses for “Other” and “N/A” are not included in this list.

44b. Top Ten Secondary School Math Benchmark Assessments ($n = 925$)

Benchmark Assessment	Weighted Percentage
District-created benchmark assessments	53
School-created benchmark assessments	49
State-created benchmark assessments	48
iReady Diagnostic (Curriculum Associates)	17
MAP or Measures of Academic Progress (Northwest Evaluation Association)	16
iReady Assessments (Curriculum Associates)	15
Star Reading/Star Math (Renaissance Learning)	14
ACT Aspire (ACT, Inc.)	12
Star Assessments (Renaissance)	9
iReady Standards Mastery (Curriculum Associates)	8

NOTE: This table presents the top ten most-selected benchmark assessments. Responses for “Other” and “N/A” are not included in this list.

Perceptions of Benchmark Assessments

45. To what extent do the [ELA/math] benchmark assessments your students take align with each of the following: ($n = 1,347$)

Item	Weighted Percentage	
	ELA	Math
Content of state [ELA/math] standards	91	92
Content of state-mandated [ELA/math] summative assessment	88	89
Format (i.e., types of problems and questions) of state-mandated summative assessment	81	83
The pacing and/or order, scope, and sequence that you used to cover [ELA/math] standards throughout the year	84	84

NOTE: Response choices for this item were “not at all aligned,” “a little aligned,” “mostly aligned,” and “totally aligned.” We display the weighted percentage of leaders that reported that benchmark assessments their students take mostly and totally aligned with the statements in this item.

School Culture

Learning Environment

46. Thinking about this school year (2019–2020), indicate your agreement or disagreement with each of the following statements about your school. (*n* = 1,372)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
People in this school are eager to share information about what does or does not work.	0	5	44	51
Making mistakes is considered part of the learning process in our school.	0	4	42	53
In this school, teachers feel comfortable trying out new research-based teaching approaches.	1	10	49	40
In this school, it is easy to speak up about what is on your mind.	1	6	48	45
People in this school are usually comfortable talking about problems and disagreement about teaching and learning.	1	10	51	38
Teachers in this school frequently observe other teachers.	15	35	39	11
Teachers in this school are comfortable being observed (even if the observation is unannounced).	1	11	48	40

NOTE: This question was adapted from Elmore, Forman, and Stosich, 2016. All percentages were rounded to the nearest integer.

47. Indicate your agreement or disagreement with each of the following statements about teachers at your school. (*n* = 1,372)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Teachers have a “can do” attitude.	0	5	43	51
Teachers are continuously learning and seeking new ideas.	0	7	47	46
Teachers have a strong understanding of the state standards for the content areas they teach.	1	8	49	41
Teachers have a clear idea of the district’s goals for instructional improvement in their subject area.	2	13	52	33
My new teachers were prepared to skillfully use and modify curriculum materials when they started at my school.	6	23	54	16

NOTE: All percentages were rounded to the nearest integer.

Principal Support and Evaluation of Teachers

48. Which subject areas do you evaluate in your school? (*n* = 1,372)

Subject	Weighted Percentage
ELA	95
Math	95
Science	85
Other subject	38

NOTE: All percentages were rounded to the nearest integer. Respondents were instructed to “select all that apply.” Percentages will not sum to 100 percent.

49. Indicate your agreement or disagreement with each of the following statements describing your experiences at your school this school year (2019–2020). (*n* = 1,372)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
I encourage teachers to use existing curricula as the basis for their lesson plans.	0	6	44	49
I encourage teachers to develop their own lesson plans from scratch (i.e., based on teachers' self-created materials).	8	22	46	24
I provide teachers with feedback on how well they use curricula.	1	6	47	46

50. To what extent are the following present in your school to support teachers' instruction? (*n* = 1,371)

Statement	Weighted Percentage			
	Not Present	Present to a Slight Extent	Present to a Moderate Extent	Present to a Large Extent
A set of ELA teaching practices that are used by all	5	15	48	32
A set of mathematics teaching practices that are used by all	4	14	48	34
A set of science teaching practices that are used by all	10	26	43	21
ELA curricula that are well aligned with ELA teaching practices my school encourages teachers to use	3	12	43	42
Mathematics curricula that are well aligned with mathematics teaching practices my school encourages teachers to use	2	12	44	43
Science curricula that are aligned with science teaching practices my school encourages teachers to use	7	22	42	29
ELA benchmark or interim assessments that are aligned with ELA teaching practices my school encourages teachers to use	4	13	43	41
Mathematics benchmark or interim assessments that are aligned with mathematics teaching practices my school encourages teachers to use	3	12	43	42
Science benchmark or interim assessments that are aligned with science teaching practices my school encourages teachers to use	16	23	37	24

NOTE: All percentages were rounded to the nearest integer.

51. Indicate your agreement or disagreement with each of the following statements describing connections among elements of your instructional system. (*n* = 1,371)

Statement	Weighted Percentage				
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	I Don't Know
Formal evaluation rubrics for ELA teachers are closely connected with instructional goals for ELA	12	18	37	31	2
Formal evaluation rubrics for math teachers are closely connected with instructional goals for math.	12	19	37	29	2
Formal evaluation rubrics for science teachers are closely connected with instructional goals for science.	16	22	35	23	3
Formal evaluation rubrics for teachers align with my definition of good instruction.	3	5	33	58	1
Teacher observation protocols I use are connected with my state standards and district goals.	3	5	29	63	1
Teacher observation protocols I use take into account teachers' use of curriculum.	3	9	32	56	1
The rubric my district uses for principal evaluation aligns with my definition of good leadership	4	9	42	43	2
The rubric my district uses for principal evaluation includes a focus on academic standards teachers are expected to address in the classroom	6	16	35	41	2
The rubric my district uses for principal evaluation includes a focus on whether teachers are using required or recommended curricula	12	24	34	27	2
Curriculum, instruction, and supplemental materials are well coordinated across the different grade levels at this school.	2	10	42	45	0
There is consistency in curriculum, instruction, and supplemental materials among teachers in the same grade level at this school.	2	7	37	53	0

NOTE: This question was adapted from the 2017 RAND Measurement and Learning Survey (Doss and Johnston, 2018). All percentages were rounded to the nearest integer.

District Communications

52. Thinking about this school year (2019–2020), indicate your agreement or disagreement with each of the following statements about your district. (*n* = 1,369)

Statement	Weighted Percentage			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
The district has clear expectations for school-based planning.	5	20	47	28
The district conveys the importance of using the standards-aligned curriculum.	3	8	42	48
The district has a clear vision for improving student outcomes and provides clear direction on how to achieve that vision.	5	18	49	28
The district helps me build school capacity for ongoing professional learning and planning related to standards-aligned curricula.	7	15	51	27
The district helps me create time and/or opportunities for teacher collaboration on planning and/or improvement of instruction.	7	15	49	29
The district helps me create time and/or opportunities for teacher collaboration on use and modifications of their instructional materials.	7	17	51	25

NOTE: All percentages were rounded to the nearest integer.

Bibliography

Achieve the Core, “Common Core Knowledge and Practice Survey,” webpage, undated. As of January 31, 2020: <https://achievethecore.org/page/1104/common-core-knowledge-and-practice-survey>

Blazar, David, Blake Heller, Thomas J. Kane, Morgan Polikoff, Douglas Staiger, Scott Carrell, Dan Goldhaber, Douglas Harris, Rachel Hitch, Kristian L. Holden, and Michal Kurlaender, *Learning by the Book: Comparing Math Achievement Growth by Textbook in Six Common Core States*, Cambridge, Mass.: Harvard University Center for Education Policy Research, March 2019.

Council of Chief State School Officers, *Building on our Momentum: CCSSO 2019–20 Annual Report*, Washington, D.C., 2020.

Doss, Christopher Joseph, and William R. Johnston, *AEP Data Note Technical Appendix*, Santa Monica, Calif.: RAND Corporation, RR-2575/1-BMGF, 2018. As of February 11, 2020: https://www.rand.org/pubs/research_reports/RR2575z1.html

Elmore, Richard F., Michelle L. Forman, and Elizabeth Leisy Stosich, *Internal Coherence Assessment Protocol*, Washington, D.C.: Strategic Education Research Partnership, 2016.

Kaufman, Julia H., Sy Doan, Andrea Prado Tuma, Ashley Woo, Daniella Henry, and Rebecca Ann Lawrence, *How Instructional Materials Are Used and Supported in U.S. K–12 Classrooms: Findings from the 2019 American Instructional Resources Survey*, Santa Monica, Calif.: RAND Corporation, RR-A134-1, 2020. As of September 17, 2020: https://www.rand.org/pubs/research_reports/RRA134-1.html

Kaufman, Julia H., V. Darleen Opfer, Michelle Bongard, and Joseph D. Pane, *Changes in What Teachers Know and Do in the Common Core Era: American Teacher Panel Findings from 2015 to 2017*, Santa Monica, Calif.: RAND Corporation, RR-2658-HCT, 2018. As of February 11, 2020: https://www.rand.org/pubs/research_reports/RR2658.html

Kaufman, Julia H., V. Darleen Opfer, Michelle Bongard, Joseph D. Pane, and Lindsey E. Thompson, *What Teachers Know and Do in the Common Core Era: Findings from the 2015–2017 American Teacher Panel*, Santa Monica, Calif.: RAND Corporation, RB-10035-HCT, 2018. As of February 11, 2020: https://www.rand.org/pubs/research_briefs/RB10035.html

McFarland, J., B. Hussar, C. de Brey, T. Snyder, X. Wang, S. Wilkinson-Flicker, S. Gebrekristos, J. Zhang, A. Rathbun, A. Barmer, F. Bullock Mann, and S. Hinz, *The Condition of Education 2017*, Washington, D.C.: National Center for Education Statistics, 2017.

National Center for Education Statistics, 2018–19 Common Core of Data (CCD) Universe Files (2019–052), data file, January 2019.

NCES—See National Center for Education Statistics.

Pondiscio, Robert, “Louisiana Threads the Needle on Ed Reform,” *Education Next*, Vol. 17, No. 4, 2017. As of July 20, 2020: <https://www.educationnext.org/louisiana-threads-the-needle-ed-reform-launching-coherent-curriculum-local-control/>

Robbins, Michael W., and David Grant, *RAND American Educator Panels Technical Description*, Santa Monica, Calif.: RAND Corporation, RR-3104-BMGF, 2020. As of August 21, 2020: https://www.rand.org/pubs/research_reports/RR3104.html

Shanahan, Timothy, and Ann Duffett, *Common Core in the Schools: A First Look at Reading Assignments*, Washington, D.C.: Thomas B. Fordham Institute, 2013.

Steiner, David, *Curriculum Research: What We Know and Where We Need to Go*, Washington, D.C.: StandardsWork, March 2017. As of February 3, 2020: <https://standardswork.org/wp-content/uploads/2017/03/sw-curriculum-research-report-fnl.pdf>

TNTP, *The Opportunity Myth: What Students Can Show Us About How School Is Letting Them Down—and How to Fix It*, New York, 2018. As of February 3, 2020: https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf

University of Chicago, *5Essentials Survey*, Chicago, Ill.: University of Chicago Consortium on School Research, 2017.

About This Report

The AIRS focused on instructional resources used and supported in English language arts, mathematics, and science K–12 classrooms across the United States, including those used during school closures in spring 2020 related to the coronavirus disease 2019 (COVID-19) pandemic. The results are intended to inform policy and education practice related to the use of instructional resources. If you are interested in using AEP data for your own analysis or reading other AEP-related publications, please email aep@rand.org or visit www.rand.org/aep.

This study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking.

This technical report is based on research funded by the Bill & Melinda Gates Foundation, the Charles and Lynn Schusterman Family Foundation, and the Overdeck Family Foundation. We are grateful to foundation staff for their collaboration and feedback on our surveys and analysis. The findings and conclusions we present are those of the authors and do not necessarily reflect positions or policies of the foundations funding this technical report.

For more information and research on these and other related topics, please visit gatesfoundation.org.

More information about RAND can be found at www.rand.org. Questions about this technical report or about the AIRS project should be directed to jkaufman@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.



The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.

RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND®** is a registered trademark.

Print and Electronic Distribution Rights

This work is licensed under a Creative Commons Attribution 4.0 International License. All users of the publication are permitted to copy and redistribute the material in any medium or format and transform and build upon the material, including for any purpose (including commercial) without further permission or fees being required.

For more information on this publication, visit www.rand.org/t/RR-A134-4.

Published (2020) by the RAND Corporation

www.rand.org