

## SELECTING INSTRUCTIONAL MATERIALS: BRIEF 2 — SUPPLEMENTATION

# Why and How Teachers Choose to Supplement Adopted Materials

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*This brief reports on focus-group participants' comments regarding what drives teachers to supplement their school- or district-adopted instructional materials, where they look to find supplemental materials, and how they choose those materials. (See Appendix 1 for details on the sample and methods of the study that contributed to the findings reported in this brief.)*

*I don't think that there is a magic wand that's going to create one package for all children. You have to be innovative. You've got to be creative . . . and there has to be a lot of things that teachers have to go through and try out [to] see if it works. And you [may] do it the next year and it doesn't work at all.*

— Teacher, New Orleans Area<sup>1</sup>

None of the teachers who participated in the focus groups said that they used their school's adopted materials or curricular program with complete fidelity, even when using materials that they described as being high-quality and standards-aligned. Teachers indicated that they crave materials that better serve the range of students in their classrooms and that enliven learning. Indeed, teachers in more than one of the focus groups described themselves as materials “hunter-gatherers.” Yet all participants expressed frustration at the amount of time they spent looking for resources that they need in order to support their students' learning and success on standardized tests. Teachers resisted quantifying precisely how much time they spent searching for resources; typical responses to this question included “too much” and “you don't really want to know.” Teachers in the focus groups consistently described the inadequacy of provided texts and

<sup>1</sup> Teachers' statements throughout this brief are not necessarily representative of their school, district, or state.

## Background

With funding from the William and Flora Hewlett Foundation, WestEd is studying how teachers make decisions about which instructional materials to use in their classrooms. WestEd's work is designed to support a portfolio of Hewlett-funded grantees working to improve the quality and consistency of instructional materials in classrooms across the United States. In 2016, WestEd researchers conducted focus groups with teachers in six cities to develop a baseline understanding of how they obtain, judge the quality of, and select instructional materials. Specifically, WestEd researchers explored three areas of interest: (1) teachers' judgments of what constitutes quality materials, (2) why and how teachers choose to supplement the adopted materials, and (3) teachers' descriptions of processes for adopting instructional materials in their districts and schools. This brief focuses on the second area of interest: teachers' supplementing school- and district-adopted instructional materials. All three briefs are available online at <http://WestEd.org/bookstore>.

the need to augment them since recent shifts to new standards.

Supplementation, as described in these focus groups, was prevalent and was not opposed by administrators. Many schools supported teachers' creative use of materials in their classrooms. Even for schools using pacing guides, numerous focus-group teachers described different ways to show an administrator how supplemental materials were both standards-aligned and supportive of classroom needs. In addition, many noted that, as long as their students met the required levels on standardized tests, they had pretty free rein to teach as they saw fit.

The majority of the teachers' comments about supplementation fell into one of two categories: (1) describing the sources that they use to gather supplemental materials, or to get guidance for creating supplemental materials, and (2) explaining their reasons for seeking out materials to supplement the adopted texts.

### Sources for Supplementation

The rapid expansion of publishing platforms on the internet has led to an explosion of sources for instructional materials. The range of these sources is enormous, from comprehensive materials developed by education professionals (such as EngageNY), and materials developed by start-up educational companies (such as Khan Academy and Desmos) and blogs, to inventories of teacher-produced materials (such as Teachers Pay Teachers and Pinterest boards).

Focus-group teachers were asked how they located instructional materials, how they decided among sources, and which sources they used most frequently. A list of specific sources that participants cited is provided in Appendix 2. Although this list is extensive, it is not comprehensive; participants

were not expected to mention every source that they had used.<sup>2</sup> However, a few sources were mentioned in every focus group. This section describes those sources and how teachers used them.

*You've got to keep going back and figuring it out to say, "I taught it this way last year. [The students] didn't get it. I taught it this way this year. They still didn't get it." So now you have to come back and say, "Okay, what other resource do I have?" You have to start utilizing your peers. . . . "Hey, what does your school use? What do you do for this?"*

— Teacher, New Orleans Area

With a few exceptions, the majority of teachers said that they worked collaboratively with a peer or with other teachers in a grade band to supplement the adopted texts. These collaborations took many forms, from developing similar lesson plans to sharing accounts for subscription websites and collaborating on Pinterest pages filled with lesson ideas and comments. Teachers in every focus group also mentioned seeking the advice of senior colleagues because those colleagues had accumulated considerably more resources, over the years, than younger teachers had. Some focus-group teachers mentioned utilizing district-developed websites for help in finding supplementary materials.

### Google

Most teachers began their hunts for materials with a Google search. What they typed into the search box varied, depending on the particular needs of their students. For example, teachers explained that they might type in a standard, a particular skill, or a theme. One teacher said, "Common Core is amazing because everybody in the country

<sup>2</sup> In the focus groups, teachers were observed taking notes on one another's methods and favorite sites, suggesting that teachers do not pass up opportunities to expand their resources.

is doing the same thing at the same time. And so all these amazing resources are out there.” The research team was interested in how teachers choose from among the many search results that they would receive. After topic relevance, their next most important criteria were ease of access, time, and cost. One teacher explained:

*I just type in “free printable fractions for fifth graders.” . . . Of course, they all pop up. Today I went through, and the first one, I had to sign in. I had to get a membership. So the second one . . . it was a lot of just [verbiage] about it. I didn’t have time for that. And then the third one . . . was just like fifth grade math: fractions, multiplication, division, word problems . . . and it had the answer key with it, so I could just print off the calculations, answer key, and then they were leveled by difficulty. . . . So for me it’s just the simpler, the faster, the easier.*

— Teacher, Raleigh Area

The process that this teacher describes for making selections from search results was echoed throughout the focus groups. This teacher was driven by responsive instruction (her students had shown weakness with fractions on a formative assessment) and was looking for something that would be easy to access (without signing in or reading too much), printable, and differentiated.

More teachers described searching for entire lessons — utilizing well-known educational resources, such as [PBS.org](http://PBS.org), or based around a theme or chapter book — rather than looking just for an extra piece to complement a lesson that they already had a sense of, or to augment students’ experience with a concept that the students had already been taught.

With regard to cost of materials, some teachers described having pooled money for a website login to share, or for a resource that appeared to be worthwhile but was expensive.

## Pinterest

All of the teachers in the focus groups were familiar with Pinterest, and nearly all (about 95%) said that they use it to organize their online curricular resources or to get ideas. For example, one teacher described her grade-level team sharing a Pinterest page where team members collected different lessons throughout the year and then left comments on implementation for one another. Other teachers talked about “following” colleagues on Pinterest who consistently posted instructional materials that worked in their classrooms, and about eagerly awaiting new “pins.” Teachers often reported that Pinterest served as an intermediary between a web search and the publisher of the curricular resource.

## Teachers Pay Teachers

All teachers who participated in the focus groups were familiar with the Teachers Pay Teachers website and had accessed some resources from the site. As with Pinterest, teachers reported “following” other teachers on the site who had been successful with lessons in their own classrooms. Teachers indicated that one of the main aspects that makes Teachers Pay Teachers appealing is that its materials are created by teachers. However, this characteristic was not the only incentive for teachers to use the site. As with all of the other web resources cited, teachers asserted that no single criterion guaranteed the website’s usefulness for their classrooms. With regard to Teachers Pay Teachers, many focus-group teachers echoed the following description from one teacher:

*What draws me to [Teachers Pay Teachers] is not only that it’s made by teachers, but they give us that evidence and that reflection on when and how they’ve used it. How it’s worked. And then you can see everyone’s [comments] who has chosen to partake in it. All their comments. All their adjustments. All their questions. Most of the time you can*

*preview the products before you even purchase. And so I like that, because that way you can [make] a better-informed decision.*

— Teacher, Raleigh Area

Much of the draw of sites such as Teachers Pay Teachers is the “hive mind” that they cultivate. Teachers in the focus groups reported that reading about successful uses of, and subtle alterations to, materials was beneficial. One teacher described primarily looking for materials that included a video of the lesson, so that she could see the teaching as well as the student responses.

*And so, when the district decided to get rid of Addison-Wesley, I went around to every teacher and I said, “Don’t throw the bag away.” Um, that’s 20 years ago. I’m still carrying Addison-Wesley counters, protractors, algebra tiles.*

— Teacher, New Orleans Area

Although the internet and the advent of the Common Core State Standards (CCSS) have provided teachers with unprecedented access to instructional materials, the tailoring of lessons to classes and students is, as many teachers noted, part of the art of teaching. Veteran teachers talked about having 20 years’ worth of curricular materials in their classrooms. In one focus group, teachers showed photos of storage spaces, garages, and closets filled to the brim with instructional materials. One teacher explained that, because she had only taught for five years, she relied heavily on the cabinets of materials from colleagues in her school. Other teachers in the focus groups talked about keeping a few books that were on a discard list. Teachers held on to older, admittedly outdated materials (thus the filled storage spaces and garages) for a variety of reasons. For example, they pointed to the challenge of getting up to speed on a set of new materials — that it could take two to three years for them to really understand how to

successfully use a text. Once they understood the strengths of a set of texts, they wanted to be able to draw on those strengths. Oftentimes a feature of a particular textbook would stand out, making the textbook worth keeping, even if teachers found it insufficient for supporting student learning without supplementation.

In discussing the specific sources that they used and how they assessed the quality of those sources (for more information on this topic, see another brief in this series: *How Teachers Judge the Quality of Instructional Materials*), focus-group teachers also explained that supplementation was a highly collaborative activity. These collaborations happened locally, often in classrooms after school, and also online, such as in the comments sections of websites. Interestingly, in spite of how much time and effort teachers evidently put into finding supplementary materials, not a single-focus group participant discussed any professional development oriented toward building their facility in this area or supporting teachers’ time to engage in searching for materials.

## Reasons for Supplementing

In all of the focus groups, at least one teacher described needing to fill in perceived gaps in school- or district-adopted instructional materials. One teacher described a mathematics text as being so inadequate that “it was almost easier to just start from the ground up.” Teachers explained that the adopted materials often either lacked necessary components or assumed knowledge that their students did not have.

This latter problem was made evident by the switch to the CCSS. Teachers explained that, for many classes, the curriculum had changed to align with the CCSS, and it often takes at least two years for students to adjust to a new curriculum. For example, some schools typically introduce

fractions in grade 4, whereas the CCSS assume that students learn fractions in grade 3. This misalignment forced teachers to augment the grade 4 mathematics lessons with grade 3 work in the first year of CCSS implementation. Teachers in one focus group described challenges with a particular curriculum, saying it was not a “transitioning curriculum” because it did not help students adjust to the difference from the ways that mathematics had been taught and sequenced in the standards system prior to the CCSS.

Across all focus groups and in equal proportions, three main issues dominated teachers’ discussions about supplementing the adopted materials:

- » Students’ achievement of the standards and success on assessments was not supported by the adopted materials;
- » There was insufficient differentiation in the adopted materials; and/or
- » The adopted materials were not engaging for students or teachers.

In addition to these themes, other notable reasons for supplementation included needs for hands-on, manipulative-based lessons; low production quality of the adopted texts; perception that the materials were not easy to use; and needs for texts that were referenced in textbook lessons but that were not supplied by the school or district.

### Standards and assessments

Across all focus groups, teachers oriented their teaching, and thus their selection of materials, toward the standards and assessments to which they and their students would be held accountable. They discussed at least some aspects of backward planning, which involves starting with a standards- or assessment-based objective. Teachers spoke about district benchmark or interim tests that were oriented toward a particular skill or standard. In

some contexts, teachers had access to sample or prior-year test questions, and they would use those questions to pinpoint where their students needed further instruction. Then they would begin looking for other materials to support student success with that skill or standard.

All of the focus-group teachers said that they considered the shift from prior standards to the CCSS or other new state standards to be a large shift that necessitated reworking lessons and instructional materials. They also expressed frustration with texts that purported to be aligned to the CCSS but, in the teachers’ judgments, were not. Lastly, teachers reported that they learn the standards as best they can and construct lessons accordingly. However, veteran teachers said that they are wary of spending too much effort with any one set of standards (or curriculum or text) because, as many expressed, by the time they feel that they understand it, the context or expectations have changed.

### Differentiation

Because children do not all gain knowledge in the same ways, and because classrooms contain students with many differing competencies and challenges that impact their relationships with school subjects, most major textbook companies produce their own supplemental and/or complementary materials. Teachers in the focus groups explained that they typically had access to full suites of textbook companies’ materials during piloting and adoption processes, and that they based their judgments of the materials on this exposure to the full suite, which included supplemental materials. However, districts rarely purchase these supplemental materials, or only purchase them in the first year of adoption of the textbooks that the materials supplement. As one teacher explained, “It’s like they [textbook companies and districts] focus a lot of the planning and stuff, they home in on the [students] that are in the middle . . . and it’s up to the teacher to . . . differentiate.” The students

“in the middle” — students who are on grade level — make up only a portion of a teacher’s classroom. Thus, teachers are left to find their own resources to support differentiated instruction for students who are not “in the middle.”

Working to meet the needs of both lower- and higher-achieving students was found to be the primary reason for differentiation. Most of the focus-group discussions about differentiation were oriented toward the needs of below-grade-level students. In districts that had shifted to materials that were CCSS-aligned (or that purported to be CCSS-aligned), the primary issue that teachers identified was students’ need for more practice with the subject basics. In mathematics, teachers were creating worksheets for additional practice problems. For English language arts (ELA), they sought to supplement grammar and spelling support and practice for students. Interestingly, although above-grade-level students’ needs were frequently mentioned, little detail was offered on what those needs were, though teachers in three focus groups discussed directing students to adaptive online resources where the students could work at any level.

Focus-group teachers also discussed looking for supplemental materials to support students who were receiving special education services, to meet alternative learning styles (e.g., auditory, visual, kinesthetic), as well as to provide materials in other languages. Teachers described using Bing or Google Translate to help English learner students understand mathematics problems. However, these online translators are not always accurate.

### Student and teacher engagement

When explaining their opinions of what makes materials high-quality, all focus-group teachers indicated that the materials’ ability to engage students was the single most important element of quality. Therefore, it is not surprising that teachers reported that one of the primary reasons that they

seek out supplemental materials is to bolster student engagement. One teacher in the Tampa area described backwards planning from the standards and then asking, “Is this something that’s going to hook [students] and hold their interest? If it’s not, even if it teaches the standards, it’s not worth implementing.” This perspective is important, given teachers’ intentions to find materials that are aligned with assessments and standards. Although every teacher in the focus groups was familiar with and had accessed the EngageNY materials — the most widely accessible, CCSS-aligned, free materials — most teachers in our focus group reported that they did not find the EngageNY materials to be sufficiently engaging for students.

For mathematics, teachers looked for engaging games and manipulatives. Mathematics teachers also complained about word problems that introduced a distracting element, such as a topic with which their students had little or no familiarity (such as snow, for students in Florida) and which, therefore, derailed lessons.

Similarly, ELA teachers looked for tasks, questions, and texts that they considered to be authentic. Many lamented what they perceived as a move away from chapter books, and few utilized the story collections with which they were provided:

*I find that even with a quality curriculum . . . I have to do a lot of work to bring them into it, and that the materials themselves don’t do that. So, in a way, I’m rewriting the curriculum a lot of the times, and especially I teach kids who don’t want to do school, and so my kids need a lot of that kind of work done, where I can get them to figure out what is going to be the hook to get them into what we’re reading. That’s missing in a lot of materials.*

— Teacher, Seattle Area

Teachers in the focus groups asserted that they work hard to find reading materials and ways of engaging with reading to keep their students motivated and interested. One teacher described reworking how students are asked to respond to a text, asking students to write an “analog tweet” in which they write their reflections on the text on small pieces of paper, with a little bird on one corner of the paper, and use hashtags as summaries. Teachers also described eavesdropping on students’ conversations for topics that the teachers can connect to the instructional materials at hand, and searching online for games that connect to reading comprehension for the texts that they are given.

## Summary

Teachers in these focus groups described the process of supplementing materials as being standards- and assessment-driven and, in particular, as being highly responsive to formative assessment of their students. Furthermore, the process of supplementation that they described is highly collaborative, and this collaboration can be locally organized and/or supported by the internet. Teachers noted the particular challenge that first-year teachers face in this regard, as first-year teachers have not acquired extensive collections of materials, which teachers see as a critical component to creating successful lessons.

*Really, to be honest, you should be modifying pretty much everything that’s put in front of you, because it’s not made with your students in mind, with you, the teacher, in mind.*

— Teacher, Seattle Area

Focus-group discussions on supplementation revealed a number of tensions that teachers face as professionals. Teachers may know that they are

not experts on curriculum, but they also know that they are experts on their students and on their classrooms’ dynamics. They are committed to their students’ success, and they understand that that success is primarily measured by standards-based testing. Thus, teachers strike a balance between learning the new standards or materials and using their own and their colleagues’ judgment about what else to be doing (so that they don’t invest too much time and energy pursuing what might soon change). In addition, the focus-group teachers described engaging in modification of curricular resources as a way of keeping themselves engaged. They frequently discussed the need to be creative in their own evolution as teachers.

*I like to build, [creating new materials], because that kind of keeps me on my toes too, as far as I want to be having fun and learning along with my kids, like this is something new to me, so we’re learning together.*

— Teacher, Raleigh Area

This type of creativity happens during searches for materials that combine high-level, engaging, differentiated, culturally relevant, standards-aligned materials.

## Discussion

Districts, schools, and teachers are not organized around a set of norms for selecting supplemental materials. As the focus-group teachers expressed, part of the art of teaching involves assessing students’ needs and applying professional judgment, accrued through experience and education, to determine how to deliver the best instruction possible. Teachers conveyed a desire for better materials upon which to base their instruction, and asserted that supplementation and modification of those materials also needs to be supported. The

findings from the focus groups point to a need to support teachers in growing their skills around supplementation, and to provide more structure for selecting materials and more access to high-quality resources. Districts and schools could consider promoting common planning time, and using professional learning communities, to promote communication, to develop and make transparent the criteria used to judge the sources for and quality of supplemental materials, to encourage sharing of resources, and to provide particular support to new teachers in the area of supplementation.

## Appendix 1: Sample and Methods

The data for this project were collected through group interviews with teachers in varied metropolitan areas across the country. A total of 14 focus groups were held in six metro locations: Boston, Denver, New Orleans, Raleigh, Seattle, and Tampa. In each of these locations, the project team hired a local firm to recruit participants. In addition, the project team used Craigslist advertisements to recruit teachers for two focus groups, in the Raleigh and Tampa metro areas. Prospective participants were screened using a short survey, to ensure that they were currently credentialed teachers working in public schools and that they had participated in either an English language arts (ELA) or a mathematics materials adoption process within five years of the focus group. The project team also required prospective participants to respond to a short-answer questionnaire regarding quality of materials. This process yielded a total of 65 ELA and/or mathematics teachers, from elementary schools (62%) and middle schools (38%). A total of 31 districts were represented, with an average total enrollment of 85,608 per district, and an average non-White student population of 56 percent across the districts.

About three quarters of participants (48) had been involved in materials adoption activities within the prior two years; the rest of the participants (17) had been involved in adoption activities within five years of the focus groups. In both the Seattle and Denver metro areas, the number of participants who had experience in the adoption of ELA materials was roughly equivalent to the number of participants who had experience in the adoption of mathematics materials. In the other four locations, slightly more participants had experience in the adoption of ELA materials than mathematics materials. In most locations, participants were about as likely to have been involved in both ELA and mathematics materials adoptions as they were



to have participated in the adoption of materials in only one subject. In the Boston area, most participants had been involved in only one subject's adoption process.

The focus-group interviews were intended to collect information about how teachers make judgments about the quality of instructional materials. Another interest of the study was to learn about why and how teachers sought additional instructional materials to supplement those adopted by their schools and districts. And a third interest was to collect information about school and district processes for adopting new instructional materials under the Common Core State Standards or other new standards, as well as information about teachers' roles in those processes.

Focus groups were facilitated by WestEd senior research staff and were limited to a maximum of eight participants per focus group. Questions were open-ended and structured by a protocol. However, the facilitator was also able to follow the participants' interests. Participants were regularly asked to support their statements by describing the materials adoption committees in which they had participated and by describing experiences in their classrooms.

The focus-group responses were transcribed, and the transcripts were coded in a two-part process. First, teacher statements that would inform the three primary interests of the project (materials adoption processes, teachers' judgments about materials quality, and supplementing adopted materials) were identified. Coding was

non-exclusive, in that any statement or set of statements by teachers could be coded multiple ways. Codes were applied broadly, including as much information as needed to provide context for each statement. The first round of coding produced collections of quotations from across research sites. These collections were then read closely as a set, in order to develop a more refined and emergent coding scheme for each of the three areas. The collection of quotations was then recoded using these thematic codes.

The exploratory nature of these focus groups, as well as the open-ended protocol, prevents strict quantifying of the findings. However, the themes described in this brief, as well as their subthemes, represent topics that were discussed substantially, often across multiple focus groups and by various groups of teachers. This brief and the other two briefs in this series explain these themes and use quotations as examples of teachers' statements to illustrate the themes.

Nonetheless, the themes that are discussed in these briefs should be interpreted with caution, as these focus groups capture the views of only a small number of teachers, and the statements made by these teachers are not necessarily representative of the teachers' schools, districts, or states. In addition, not every teacher in the focus groups remarked on every discussed topic, so the statements in these briefs should not be interpreted as the consensus of any focus group, except in instances that are explicitly noted as representing views expressed by all teachers.

## Appendix 2: Internet Sources Cited by Teachers (Ordered Alphabetically)

### Educational organizations

- » Achievement Network
- » National Geographic Reach for Reading
- » ReadWorks.org

### Licensed products

- » Algebraic Thinking by Khan Academy
- » BrainPOP
- » DreamBox
- » edHelper
- » EngageNY
- » enVisionMATH
- » Eureka Math
- » Everyday Mathematics
- » Geogebra
- » GOMath!
- » Journeys
- » Khan Academy
- » Looney Math Consulting
- » Math in Focus / Singapore Math Curriculum
- » Mathalicious
- » Reading A–Z
- » Reading Street Common Core
- » Storypath
- » Gumbo-limbos

### Popular websites

- » Google
- » Pinterest
- » Teachers Pay Teachers
- » YouTube

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