Near the end of the school year, Brooke (the first author) met with her colleagues, a group of secondary curriculum coordinators. They planned to reflect on the previous year and organize for the upcoming summer months and new academic calendar. One of the first topics to arise was the professional development (PD) that they had provided for teachers. Many sessions had attracted scant participation, and sessions mandated by the central administration had been met with complaints about the continued loss of teacher autonomy and reduced planning time.

At the same time, teachers were frustrated with the newly implemented standards and the administration of state assessments that reflected those standards. Many felt ill prepared to deliver effective, standards-based instruction or to redesign their assignments to better address those standards.

It was obvious that the PD program required rethinking. As session facilitators, Brooke and her colleagues found it disheartening to face empty seats or, worse, disgruntled participants, after spending long hours and days in preparation. Teachers, curriculum coordinators, and administrators all agreed that PD was critical to supporting teacher effectiveness and improving student outcomes (Borko, 2004).

New PD sessions were required that teachers not only needed but, equally important, also chose to attend. The question was how to modify PD to increase teacher participation and engagement. This article details how the team of curriculum coordinators determined the PD needs of teachers, selected a model for the PD, designed courses for literacy education, and gathered feedback to inform future PD offerings. Following the description of how the PD was created and delivered, the remainder of the article discusses how Brooke and David (the second author, a university professor and mentor to Brooke) analyzed the study data and drew conclusions from the experience.

Matching Teacher Needs to What Works

The group decided on a two-pronged approach, simultaneously surveying teachers about PD needs and wishes while also reviewing the literature for best practices in PD.

Teacher Survey

Teachers were invited to complete a survey to identify PD that they would be interested in attending. The survey was designed using Google Forms (www.google.com/forms/about) and comprised five questions. Four open-ended questions sought teachers’ preferred time of day for PD, openness to different formats, comfort with technology, and barriers to attendance. The fifth question asked teachers to choose up to three topics from a list of 15 that teachers had inquired about during the year: collaborative learning, vocabulary, writing, reading comprehension, technological tools, reading strategies, graphic organizers, assessment, data inter-
interpretation, lesson planning, critical thinking, standards-based units, differentiated learning, iPad tools, and brain-based learning.

A link to the survey was e-mailed to the districts’ 580 teachers of grades 6–12 served by the secondary curriculum coordinators. Teachers and administrators received an additional notification that the survey had been sent and that response was welcomed.

After two weeks, the survey closed with 267 responses, a 46% return rate. As facilitators, we were pleased that almost half of the teachers in the entire school system had responded. We compiled survey results, and soon it became clear that teachers wanted to understand better how to address literacy learning and instruction in their specific content areas. This made sense in light of the new Common Core State Standards, which placed significant emphasis on improving students’ college and career readiness and emphasized increased reading, writing, and communication demands in content area classroom contexts (Coleman, 2011). In addition, teachers expressed a desire to understand better how to respond to the demands for reading more complex texts, the intensified focus on academic vocabulary learning, and the increased attention to peer collaboration and critical dialogue about both literary and informational texts.

Open-ended survey responses were read, categorized, and tallied by the three facilitators. In identifying areas where teachers sought greater preparation, responses also suggested that teachers were reluctant to relinquish cherished planning and after-school time to gain these new competencies. A nontraditional method for delivering PD seemed to be needed. Fortunately, teachers reported that they were receptive to virtual learning opportunities. In essence, the results suggested that teachers sought specific kinds of literacy understandings and skills but wanted it to fit their very busy professional lives.

**Best Practices in PD**

As we initiated review of the PD research, we sought to identify what constituted best practices. The review was supplemented with searches for models of PD that might address the teachers’ request to preserve limited available planning time.

A national survey suggested three important features of effective PD: a focus on content knowledge, active learning opportunities, and coherence with other learning activities (Garet, Porter, Desimone, Birman, & Yoon, 2001). Effective PD needed to help teachers acquire a greater knowledge base, engage in actively applying that new knowledge, and include opportunities to integrate new understandings into existing classroom structures. Interaction with colleagues and sustained PD experiences were more important than the type of PD structure. A familiar challenge was the high costs associated with implementing high-quality PD. However, the study examined only face-to-face workshops and study groups.

PD was less likely to succeed if it did not consider what motivates teacher participation or examine the process by which teacher change occurs (Guskey, 2002). Teachers engaged in PD to expand their knowledge and increase their instructional effectiveness. They sought specific and practical ideas. In addition, change happened gradually and unevenly across participants.

Guskey (2002) recommended that PD should include regular feedback for teachers and continued follow-up, noting that otherwise teachers perceive a greater workload in implementing what they learn. Sustained opportunities enable greater preparation, problem solving, and time for teachers to relate what they are learning to their specific classroom demands (Van Keer & Verhaeghe, 2005).

An additional challenge is to design and deliver PD that increases teacher confidence, because levels of teaching efficacy correlate with the degree of implementation of content literacy strategies learned in PD. Teaching efficacy increases through PD that includes a sustained focus, collaboration with colleagues, and examination of personal reading processes as a route to deeper understanding of student learning challenges (Cantrell & Callaway, 2008).

The research was clear: Our PD needed to provide teachers with sustained engagement while they actively engaged in applying their learning to their own classrooms, collaborated, and received feedback. PD needed to be implemented in ways that helped teachers gain confidence in their ability to teach what they were learning. The challenges were equally clear: PD could not cost much or impinge on teachers’ planning or after-school time.

The conflict seemed irresolvable until we considered the increasingly popular flipped learning model. Flipped learning was achieving increasing support in classrooms, so why not in PD?

**Flipped Classrooms and Flipped Learning**

The flipped concept is attributed to high school science teachers Jonathan Bergmann and Aaron Sams (2012), although both acknowledge that the idea preexisted their 2007 implementation, which they initially called pre-broadcasting (Noonoo, 2012). Economics professors, for
example, developed inverted classrooms using similar methods roughly seven years earlier (e.g., Lage, Platt, & Treglia, 2000).

In essence, flipped describes instruction where students watch or listen to lessons at home and engage in applying that learning in class while receiving guidance from instructors (Flipped Learning Network, 2014; Fulton, 2012). The origin of the term flipped is unclear, but with the advent of easy video- and audiocasting apps, software, and Web-based tools, easy sharing of video through websites such as YouTube, increased Internet access in schools and homes, social media tools, and the entrepreneurial efforts of Bergman and Sams, the flipped classroom concept has grown exponentially in just a few years. The Flipped Learning Network’s website (flippedlearning.org/site/default.aspx?PageID=1), an annual conference called FlipCon (flippedlearning.org/site/Default.aspx?PageID=24), and countless other resources are available for teachers and school systems interested in learning more.

Although it is easy to find information about implementing flipped classrooms and flipped learning, research studies on the effectiveness of these approaches have been restricted to explorations in individual classrooms or comparisons of flipped instruction and lecture presentation. Case studies have suggested that university students are highly engaged in flipped instruction, value such approaches, and appreciate online learning supports, and flipped instruction supports active learning (Jamaludin & Osman, 2014; Wiley & Gardner, 2013). Comparative studies have reported results favoring flipped instruction over lecture presentation (Strayer, 2012; Tune, Sturek, & Basile, 2013).

However, in a comparison of typical and flipped university biology classrooms employing similarly active learning strategies, conceptual learning was found to be equivalent (Jensen, Kummer, & Godoy, 2015). The researchers proposed that learning gains may be attributable to active learning strategies rather than flipped or nonflipped classroom environments. Although no research on flipped PD was identified, the flipped model seemed to offer a strategy worth exploring to address the school system’s PD challenges. It supported active learning and student engagement, and adult learners appreciated it and learned targeted content and concepts. The flipped model appeared to offer teachers greater control over their learning by enabling them to engage in learning where and when they chose. It reduced the need for face-to-face sessions and enabled such sessions to be focused on guided practice employing the strategies and methods being learned.

The remainder of this article explores the design and implementation of our initial use of flipped PD and the teachers’ responses to it.

**Design of the Flipped PD**

We selected Schoology (https://www.schoology.com) as the website for organizing and delivering the PD. Schoology is free and offers significant digital resources for uploading course materials and interacting with participants. Additionally, the website is logically organized and aesthetically pleasing, offers an integrated discussion board, and is easy to use.

Each resulting PD course was designed for 10 hours of participant work divided among three different modules. The first was a six-hour, flipped module that participants completed independently at their convenience. The second was a face-to-face module that participants completed in a scheduled, face-to-face, two-hour session with the curriculum coordinators. The final module was a two-hour follow-up that participants completed individually or with a partner, and at their convenience.

According to the survey, teachers desired PD focused on literacy instruction across different content areas that engaged students in collaborative learning. Consequently, we designed three different courses: Beyond the Flashcard addressed vocabulary instruction strategies, Illuminating Reading shared active reading strategies, and Cooperative Literacy focused on strategies for group text analysis and critical discussion. Each course was designed to help teachers across grade levels support student content learning with literacy instructional strategies.

Three was a manageable number of courses to design and deliver during the summer break. We wanted to ensure that teachers had ample time to complete the flipped module before attending the face-to-face module. Moreover, we wanted to provide adequate time for teachers to develop high-quality products that reflected their learning and could be shared with colleagues in the follow-up module and ultimately implemented in their classrooms.

We employed a backward-design approach to create each course. First, we considered the end goal for participants (e.g., vocabulary instructional strategies applicable across content areas and grade levels). Second, we determined objectives and selected specific strategies to be taught and practiced. Then, we researched professional texts and multimedia that addressed the topics, goals, objectives, and strategies. For example, when we wanted teachers to learn how to identify words for vocabulary instruction, we sought peer-reviewed journal
articles that addressed word selection (e.g., Larson, Dixon, & Townsend, 2013).

Next, we planned the two-hour, face-to-face session, with teachers taking on the role of students and personally employing the strategies being presented to gain a deeper understanding of the strategies and activities. For example, teachers engaged in a Socratic circle (Copeland, 2005) during the cooperative literacy course to discuss Martin Luther King Jr.’s “Letter From a Birmingham Jail,” which could be used in eighth-grade social studies or language arts classes.

Finally, we created the follow-up module, developing tasks that invited participants to demonstrate understanding by creating materials for their own classes (e.g., lesson plans, minilessons, videos, or presentations of one or more of the strategies). In the vocabulary course, for example, we included word sorts, word lines, and interactive word walls (Cobb & Blachowicz, 2014). In each course module, content would be delivered in various ways to model best practice and differentiate instruction for the participants.

**Designing the Vocabulary Instruction Course**

To provide a clearer sense of what was involved in planning and delivering these courses, we elaborate on one course, Beyond the Flashcard, here. Our objective was for teachers to acquire multiple strategies for vocabulary instruction. We knew, given diverse participant responsibilities, that the strategies had to be applicable across grades 1–11 and content areas, including science, band, U.S. history, and K–5 general education.

Dividing up the tasks, we, as facilitators, created the course within a week by dividing up the task of finding the different materials we would need for course delivery. As we identified professional articles or videos for the flipped module or strategies for participants to practice face to face, we discussed them as a team. If we determined the material could be applied across subject areas and modified for different grades, it was included in the course. For example, we chose to use word sorts (Lenski, Wham, & Johns, 1999) as a strategy for learning vocabulary. To increase teachers’ investment in the strategy, we gathered a list of words from a text that could be used in high school English or social studies and another list from a middle-grades science article. We generated sortings of the words using meaningful, content-based headings.

Once courses were titled and dates set, we posted them on the district’s PD site so teachers could register. After K–5 administrators learned of the new PD opportunity, they requested that their teachers also be allowed to register. This added to the challenge of meeting participant needs, but we agreed that the more teachers we reached, the better. We created a video and a flyer to advertise the courses, and both were shared via e-mail with all K–12 teachers. In the video, we demonstrated the convenience of reading about new content and strategies in a local coffee shop and listening to a podcast while jogging. Because flipped PD was new to all, we believed it was important to explain the opportunity in inviting ways.

Course registration and attendance ranged from nine to 17 participants across the three courses, totaling 36 teachers. Participants represented grades 1–11 and had between two and 29 years of experience. Most were middle-grades or high school teachers, but others taught elementary education, academically gifted, English language arts, science, history, band, or special education (see Table 1).

**Implementing Flipped PD**

Once teachers enrolled, they were sent a welcome e-mail with a link to a screencast tutorial showing them how to create a Schoology account and instructions about how to log into a course once it began. After logging into Schoology and a particular course, participants could view the home page and a folder named “Course Content” with a “Start Here!” message. That folder led participants to a folder for the first module. Folders for the face-to-face and follow-up modules were hidden from view until the face-to-face session.

Technological difficulties were few, due partly to Schoology’s ease of use but also to our preparations. We created screencast tutorials to assist participants in navigating the site and completing required tasks. We shared our contact information so participants could seek help via e-mail, phone, or text message. However, very few participants contacted facilitators, possibly because of the video tutorials we created for the participants.

**The Flipped Module**

Upon opening the “Start Here!” folder, participants received guidance about how to progress through the resources. The first assignment for every course was participant introductions on a discussion board. We replied to messages promptly to welcome participants and encourage discussion.

Following introductions, participants progressed through the module by opening folders and selecting links to readings, videos, and examples. Materials
were designed to provide participants with conceptual understanding that they would apply in face-to-face sessions. Many articles discussed the rationale and implementation of particular strategies. Videos illustrated classroom application or teachers’ implementation descriptions.

Once the flipped module was completed, participants responded to another discussion board prompt encouraging reflection and further questions. As facilitators, we monitored the discussion boards to ensure participant understanding and task completion. Schoology provided notifications each time someone posted a message. We logged on to the site twice a day to provide timely responses. Additionally, if we noticed difficulties, we e-mailed participants to offer assistance.

In each course, we structured the use of different response strategies. For example, one of the courses asked participants to use a 3-2-1 strategy in which each participant detailed three concepts or ideas learned, two ideas important to remember, and one question. Our instructional goals were to monitor participant understanding, encourage discussion prior to the face-to-face meeting, and provide an opportunity to reflect on strategies that we hoped they would integrate in their own classrooms.

### The Face-to-Face Module

Face-to-face sessions were scheduled for the Tuesday after each course had been open for two weeks. We chose Tuesdays to accommodate weekend vacation trips, and 9:00–11:00 a.m. to provide ample driving time in the morning and time to finish each session before lunch. We had 100% participation for all three modules in all three courses.

During face-to-face sessions, participants accepted student roles and engaged in the strategies that they had been learning in the flipped modules. For example, during the vocabulary course, participants discussed

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Course Participants’ Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic</td>
<td>Course 1: Vocabulary</td>
</tr>
<tr>
<td>Number of participants</td>
<td>17</td>
</tr>
<tr>
<td>Years of experience</td>
<td></td>
</tr>
<tr>
<td>1–5</td>
<td>5</td>
</tr>
<tr>
<td>6–10</td>
<td>3</td>
</tr>
<tr>
<td>11–15</td>
<td>5</td>
</tr>
<tr>
<td>16–20</td>
<td>2</td>
</tr>
<tr>
<td>21–25</td>
<td>2</td>
</tr>
<tr>
<td>Grades taught</td>
<td></td>
</tr>
<tr>
<td>K–5</td>
<td>3</td>
</tr>
<tr>
<td>6–8</td>
<td>8</td>
</tr>
<tr>
<td>6–12</td>
<td>1</td>
</tr>
<tr>
<td>9–12</td>
<td>5</td>
</tr>
<tr>
<td>Subject taught</td>
<td></td>
</tr>
<tr>
<td>K–5 general education</td>
<td>3</td>
</tr>
<tr>
<td>English language arts</td>
<td>5</td>
</tr>
<tr>
<td>Science</td>
<td>2</td>
</tr>
<tr>
<td>Social studies</td>
<td>0</td>
</tr>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>U.S. history</td>
<td>1</td>
</tr>
<tr>
<td>Academically or intellectually gifted</td>
<td>1</td>
</tr>
<tr>
<td>Title I</td>
<td>0</td>
</tr>
<tr>
<td>Special education</td>
<td>1</td>
</tr>
<tr>
<td>Instructional technology</td>
<td>0</td>
</tr>
</tbody>
</table>
rationales for placing words in particular word sort categories and moved about the room comparing and contrasting sort organizations.

Professional materials were used whenever teachers read texts during the face-to-face sessions, thus providing participants with further understanding of the strategies that they would later use in their own classrooms. We wanted participants to practice the strategies using sample relevant texts of reasonable difficulty.

The Follow-Up Module
Participants were allowed two weeks following the face-to-face session to complete the follow-up module for each course, which included an anonymous course evaluation survey. In addition, participants completed a performance task designed to be shared with colleagues and used in their own classrooms (i.e., lesson plans, minilessons, videos, presentations). Facilitators evaluated these tasks to ensure that participants had employed one or more of the strategies learned.

Evaluating Teacher Response to Flipped PD
This was the first time that the school district had implemented any type of digital PD, much less flipped PD. For that reason, and because of teachers’ clear dislike of the previous year’s PD opportunities, it was important to obtain teacher feedback. We designed a survey to examine participants’ views of both online and face-to-face aspects of each course using Google Forms, which enabled us to ask questions in a variety of formats, embed the survey in the Schoology platform now familiar to participants, and produce summaries, graphs, and spreadsheets of responses.

The survey was composed of 13 five-point items on a Likert-type scale, with 1 representing the most unfavorable and 5 representing the most favorable response, and three open-ended questions. The questions addressed course aspects, including the relative ease/difficulty in using Schoology, differentiation of instructional materials and activities, participant workload, and overall course effectiveness.

At the end of each face-to-face session, we unveiled the follow-up module for participants and discussed assignment expectations. Then, we showed them the feedback survey housed in this final course module and discussed how it worked. Survey responses were anonymous and submitted following completion of the performance task in the follow-up module. All 36 teachers completed every item on the feedback surveys at the end of their respective courses.

Directed Responses
Four items addressed the initial online module (i.e., the flipped preparation for the face-to-face meeting). As seen in Table 2, teachers’ ratings of the amount of preparatory online work (mean \(M = 3.11\)) on a scale from 1 (not enough) to 5 (way too much) indicated that they felt the workload was appropriate. Participants appreciated the quality of the online resources (\(M = 4.31\)) and felt that the online discussion board was a valuable component of their preparation (\(M = 4.14\)). They also deemed the online accountability measures a strong component of the preparatory module (\(M = 4.47\)).

Two items addressed the face-to-face session specifically. As seen in Table 3, participants strongly agreed that the face-to-face meeting was practical and applied (\(M = 4.81\)) and that instructors modeled best practices seamlessly (\(M = 4.61\)). In reflecting on the final module following the face-to-face session, teachers were confident that their final product was not only an accurate reflection of their learning (\(M = 4.64\)) but that it would be helpful to them after the workshop (\(M = 4.56\); see Table 4).

A final set of six items asked teachers to consider the entire experience. As seen in Table 5, teachers found the technology to be user-friendly (\(M = 4.42\)) and Schoology to be a good platform for the flipped PD experience (\(M = 4.61\)). They also rated the strategies and ideas that they had learned as new and innovative (\(M = 4.69\)). Teachers’ comfort level in sharing and using what they had learned was high (\(M = 4.25\)), and they felt strongly that the flipped PD structure was an effective instructional model (\(M = 4.72\)).

Table 2
Teacher Evaluation of the Online Preparation Module

<table>
<thead>
<tr>
<th>Online preparation module component evaluated</th>
<th>Mean (standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload</td>
<td>3.11 (0.31)</td>
</tr>
<tr>
<td>Quality of online resources</td>
<td>4.31 (0.84)</td>
</tr>
<tr>
<td>Online discussion board</td>
<td>4.14 (0.98)</td>
</tr>
<tr>
<td>Online accountability measures</td>
<td>4.47 (0.60)</td>
</tr>
</tbody>
</table>

Table 3
Teacher Evaluation of the Face-to-Face Module

<table>
<thead>
<tr>
<th>Component evaluated</th>
<th>Mean (standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face time was practical and hands-on</td>
<td>4.81 (0.40)</td>
</tr>
<tr>
<td>Instructors modeled best practice</td>
<td>4.61 (0.54)</td>
</tr>
</tbody>
</table>
Open-Ended Responses

We also asked participants three open-ended questions to identify what they particularly valued or disliked about flipped PD. The questions addressed components that teachers found most and least effective and whether their learning needs had been met.

To analyze these open-ended responses, we initially read through all the responses twice. As we read, we made notes about potential relationships among the responses and began to develop a list of coding categories. We identified three levels of response to code. First, participant responses related to either aspects of course content or the structure. Second, participants addressed content and structure of the courses with references to specific online components, face-to-face components, or both. Finally, responses connected to either general aspects or more specific elements of the course. Definitions, descriptions, and examples of each category were then developed and used in coding all open-ended responses. A graduate student coded a sample of 30 participant responses (i.e., 25% of the total responses), and her codes matched Brooke’s on 29 of 30 responses (97% agreement). Brooke coded the remaining responses.

Themes emerging from this coding process echoed the Likert-type item responses. Participants enjoyed the experience of being a learner in a flipped PD course. They found the structure of the flipped model effective for them as learners and the content valuable for teaching their own students. These themes are subsequently elaborated on.

Structure of the Flipped Model: “I Did It My Way”

Teachers particularly appreciated the flexibility and supports of flipped PD. One representative comment was “As a busy mom of two, it was wonderful to be able to do the majority of the course on my own time.” Others appreciated accessing course materials in multiple, short sessions rather than the longer, all-afternoon or all-day sessions of more traditional approaches. Still others commented on the availability of the materials and resources online after the course was completed. A representative note read, “Now I have them all in a place where I can look back throughout the year as I work to change my classes’ vocabulary practice.”

Because the majority of the work for the courses took place outside of class, face-to-face time was more tightly constructed around teachers’ comfort in implementing targeted practices. “It was great to have a very reasonable set amount of class time to meet and discuss and practice,” said one participant. Another added, “The most effective component of the Flipped PD course for me was the face-to-face session, because we got to see strategies modeled and hear best practices from each other.”

Overall, teachers felt that flipped PD met their scheduling needs, supported time for processing the information, and was a valuable use of their time. As one participant summarized, “The process is effective because you do the preparation, leaders model the different methods, class participates and demonstrates the method, and a usable product is developed for classroom use.”

Content of the Courses: “Just What I Need”

Perhaps because participants had a voice in selecting course topics, their responses about course content were almost uniformly positive. One participant wrote that “the resources and wide range of strategies I was given” were the most effective component of the courses. Participants reported an eagerness to implement the new strategies and ideas they had learned. Another participant said, “There were various ideas that I could shape to incorporate into my classroom,” and yet another, “I am really excited about what I have learned and about what my students can learn.”

Participants were pleased with the materials and resources that they viewed before and during the face-
to-face session. “I felt like the work we did prior to the [face-to-face] session was extremely valuable, because we were all on the same page from the beginning. We had a clear focus and purpose,” wrote one. In addition, participants believed that the content could be applied easily to their differing teaching responsibilities. One noted, “Many examples of each focus area were provided that we can use immediately or adapt to our classroom situations and student levels.”

An Area for Improvement

One component of the flipped courses stood out in participant feedback as less useful than we had intended. Participants felt that the discussion board employed prior to the face-to-face session was not as effective as other components of the courses. Even though curriculum coordinators commented in response to the participants’ posts on the discussion board, many participants still said that it sometimes felt like busywork.

One participant explained, “None of us really interacted [online], and so I felt like I was just posting for myself.” It was clear that even though we responded to their posts, the participants desired more of the kinds of discussion that took place with their classmates in face-to-face sessions.

Benefits of Flipped PD

This initial experiment in flipping PD began with the intent of identifying, designing, and delivering PD that teachers would find engaging, practically useful, and minimally intrusive on their busy schedules. Teachers were consulted regarding topics they wanted and needed to learn about, as well as the learning formats they preferred. Targeted to the most widely voiced needs, the resulting PD offerings incorporated many aspects of best practice described in the PD literature. Teacher response was uniformly positive to the resulting courses.

One important aspect of effective PD is sustained participant engagement with a topic (Cantrell & Callaway, 2008). The flipped courses described in this article were targeted for 10 hours of participant involvement because they were an experiment and because the previous year’s experience suggested that teachers would not respond well to a greater time investment. However, many participants invested significantly more than 10 hours in viewing videos, reviewing print sources, and planning their final products. Although one participant suggested a future improvement would be increased continuing education credits, participants on the whole judged the workload as appropriate.

The fact that online preparation and follow-up was self-initiated and self-controlled seemed to eliminate the previous year’s widespread resentment of traditional, face-to-face workshops. Further studies will need to investigate whether increases in teacher engagement with materials are sustained across topics and time. If so, flipped PD may offer significant advantages over more traditional approaches.

Teachers may also have chosen to engage with materials and concepts to a greater extent than required because of the flipped model’s additional advantage: reduced face-to-face meeting time. The initial teacher survey made clear that teachers wanted to improve their knowledge and skills but were tired of interruptions that reduced valued professional and personal time.

The flipped delivery enabled greater participant control in differentiating their own learning. Participants could study at any time of day in any location supporting Internet access as often as they desired. They could ask questions online and review fellow participants’ ideas about the same materials. Teachers are motivated to participate in PD that improves their knowledge and skills and impacts their students’ learning (Guskey, 2002). The participants in these courses may well have chosen to engage in learning above and beyond the time required simply because of their personal influence on content and delivery. Course topics were derived specifically from their responses to an initial survey.

Active learning approaches are not unique to the flipped model (Jensen et al., 2015). However, the model offered our flipped PD courses significant supports for productive and active face-to-face learning. Prior to the face-to-face session, participants had already read about the strategies, watched videos of teachers using the strategies, and discussed the readings online. Beyond the participation in active learning, participants were motivated during the face-to-face session by knowing that they would be creating a product for use with their own students based on their understanding of the strategies.

Although it is not uniquely attributable to the flipped model, participants in these courses were taught in ways that built confidence in what they knew and their abilities to implement it in their own classrooms, a factor that research has identified as critical to implementation following PD (Cantrell & Callaway, 2008). Teachers had sustained time to learn instructional concepts and observe implementation prior to trying them out with colleagues. They also received feedback from colleagues and instructors, had additional time to prepare materials for their classrooms, and received further feedback on those materials. Teachers were taught content that
they had identified as important to learn. All of these contributed to a coherent experience and understanding that should increase classroom implementation (Birman, Desimone, Porter, & Garet, 2000).

Finally, the flipped PD model offers a solution to one of the greatest barriers to high-quality PD: the monetary costs of high-quality experiences. It has been estimated that it would cost school districts roughly twice as much as they currently allocate to provide teachers with face-to-face PD that includes multiple, evidence-based components (Birman et al., 2000). Because flipped PD reduces the need for face-to-face time, it can reduce expenses such as consultant fees, substitute teacher salaries, and facility costs. It shifts other costs, such as assigned teacher work time to teachers’ personal hours, but it does so in ways that teachers in this study valued, trading a fixed schedule for one more flexible to the competing demands for individual teachers’ time and energies.

**Conclusion**

We have no data with which to argue that the flipped PD model offers superior learning opportunities to more traditional methods of PD; we studied neither the learning outcomes of participants nor their students in this initial trial. It is significant, however, that teachers judged the flipped PD model to be an effective approach. This judgment increases the likelihood that teachers will continue to engage in future flipped PD opportunities and recommend the experience to colleagues.

The flipped approach offers a cost-effective model that supports the inclusion of many elements of best practice identified by research. It is worthy of continued investigations that address participant learning outcomes and the translation of that learning into the ultimate goal of PD: improved learning outcomes for students in schools.

**REFERENCES**

Bergmann, J., & Sams, A. (2012). *Flip your classroom: Talk to reach every student in every class every day.* Eugene, OR: International Society for Technology in Education.


**TAKE ACTION!**

1. Using a short survey, determine the pedagogical and personal needs (e.g., preferred meeting times) of teachers in your grade level, department, or professional learning community.
2. Determine the desired learning outcome for participants and design a final performance task, such as creating a lesson plan, that applies the information learned.
3. Create a lesson outline for the face-to-face time when teachers will practice (hands-on) the strategies that they will later implement in their own classrooms.
4. Select engaging and relevant professional resources focused on the identified pedagogical need for reading, viewing, and discussing during the flipped module.
5. Create a course in a learning management system by uploading materials for all of the modules.
6. Invite teachers to participate in the course, and provide dates or meeting times for completion of each module.
**FEATURE ARTICLE**


**MORE TO EXPLORE**


- **Flanigan, R.L. (2013). Flipped PD: Building blocks to success. Education Week, 6(3), 16–18.**

- **Scott, P.G. (2014). Flipping the flip. Educational Leadership, 71(8), 73–75.**

- **Flipped PD: www.flippedpd.org**

---

**RENEW NOW AND SAVE! GET 3 YEARS OF RESOURCES AND SUPPORT**

As an educator and ILA member, you are passionate about literacy and helping your students learn and achieve. At ILA, we acknowledge, appreciate, and applaud your dedication. We want to help you continue on this positive path in the most cost-effective way possible by providing the high-quality teaching resources you trust—for less money.

In honor of your commitment to your students, and to help you save on ILA membership, we are pleased to offer a 10% discount on membership and journal subscriptions when you renew for three years.

Use any ILA renewal notice to take advantage of this offer, or log in and renew right now at literacyworldwide.org/renew.