

Primary Teachers' Goals and Needs: Learning to Integrate Social Studies into English Language Arts Time

Nicole M. Martin¹, Diane Bottomley¹, Ronald Morris², and Matthew Stuve³

¹Department of Elementary Education, Ball State University

²Department of History, Ball State University

³Department of Educational Psychology, Ball State University

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Correspondence concerning this article should be addressed to Nicole M. Martin, Department of Elementary Education, Teachers College (TC), Room 319, Ball State University, Muncie, IN 47306. Email: nmmartin2@bsu.edu

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I understand my social studies standards. I understand my literacy standards. But I think for me is putting it all together...

In my own classroom, I know that.... the kids are so excited and it really innovates them to continue learning... I'll be able to grow myself as an educator so that I can best fit the students' needs.

In these quotations, second-grade teachers Wendy and Cora (all names are pseudonyms) express their reasons for seeking to increase their knowledge and skill in project-based learning. Their desire connects with the recent trend we have observed in our work across the country toward greater emphasis on kindergarten through second-grade [K-2] teachers' integration of content areas such as social studies and science into English Language Arts [ELA] time. Primary teachers' integrated instruction enables simultaneous support of children's literacy and content area learning (Casey et al., 2018; Cervetti et al., 2012; Nagy & Townsend, 2012). Their instruction supports children's development of content knowledge and

disciplinary literacy, or "ability to engage in social, semiotic, and cognitive practices consistent with those of content experts" (Fang, 2012, p. 19). Through the instruction, children gain experience and skill in historians' and scientists' use of literacy when creating and disseminating knowledge (e.g., Goldman et al., 2016). Increasingly, scholars are arguing that children's content knowledge and disciplinary literacy are a necessary and central focus for K-2 learning (e.g., Cabell & Hwang, 2020; Moje, 2015)

Primary teachers' increased knowledge and skill contributes to equity in K-2 students' learning opportunities. Social studies and science learning frameworks contain expectations for students' reading and writing (e.g., Wright & Domke, 2019). For example:

- "Identify continuity and change between past and present in community life using primary sources" (1.1.1; Indiana Department of Education [IDOE], 2020a, p. 4),

- “Draw simple maps using symbols that show how space is used in familiar areas such as the classroom, the school, and the neighborhood” (1.3.7; p. 8),
- “Develop a timeline of important events in the history of the school and/or school community” (2.1.5; IDOE, 2020b, p. 4), and
- “Read about and summarize historical community events using a variety of resources (the library, digital media, print media, electronic media, and community resources)” (2.1.7; p. 4).

Yet, children’s learning to read and write texts in social studies and science has been constrained (Morgan et al., 2016; van Fossen, 2005). On average, K-2 students have used informational text for 0-3.6 minutes (e.g., Duke, 2000; Jeong et al., 2010). Since 2000, fourth-grade students’ reading for information on the National Assessment of Educational Progress has involved average scale scores of 219-221, corresponding to the Below Basic and Basic achievement categories (National Center for Education Statistics, 2021a). The average scores for Black, Indigenous and People of Color [BIPOC] students have been even lower: 187-206 (Below Basic). Children, especially those from marginalized racial and ethnic groups, remain in need of instructional support.

In the current study, we asked Wendy, Cora, and their colleagues to help us understand their present integrated instructional knowledge and skill. Although our goal was to enable planning of our project, the study also contributes uniquely to the research literature. The results offer insight that can be used to inform future K-2 professional learning activities.

Primary Teachers’ Integrated Instruction

Primary teachers’ integrated instruction involves simultaneous addressing of children’s learning in literacy and content areas such as social studies and science (e.g., Brock et al., 2014; Cervetti et al., 2012). Figure 1 depicts a sample first-grade integrated instructional unit. As Figure 1 shows, teachers enact units that include demonstrations, discussions, explanations, guided practice, question-driven inquiries, read-alouds, and writing. Rather than relying on themes or simply incorporating informational text (e.g., biographies, news articles), integration makes use of the “synergistic” relationship

between literacy and the focal content area by including an equal balance of attention to both areas (e.g., Pearson et al., 2010).

Primary teachers’ integrated instruction has been linked to children’s learning (Ippolito et al., 2017; Vitale & Romance, 2012; Wright & Gotwals, 2017). For instance, Vitale and Romance (2012) found first- and second-grade students significantly outperformed their peers on standardized reading and science tests after their teachers’ year-long use of Science IDEAS. The integrated instruction included hands-on science investigations, learning centers, read-alouds, guided reading, concept mapping, journaling, drawing, and writing. Also, Wright and Gotwals (2017) found, compared to their peers, kindergarten students’ scientific claims, use of evidence, and vocabulary knowledge and usage were significantly higher after their teachers implemented a curriculum consisting of science inquiries, read-alouds, questioning, drawing, and writing. In these studies, teachers’ instruction led to K-2 students’ growth in reading, science knowledge, and disciplinary oral language.

Finally, prior research has showcased the challenges of integrated instruction and primary teachers’ need for instructional knowledge and skill (e.g., Isik-Ercan, 2020; Mangiante, 2018). During integrated instruction, teachers attend not only to literacy but also to the focal content area. Researchers have argued both areas include unique processes necessitating separate instructional attention (e.g., Dickinson & Young, 1998). Also, researchers have documented inequities in students’ learning opportunities linked to teachers’ instruction (e.g., Lindquist & Neal, 2018; Stefanski et al., 2019). The inequities have disproportionately been observed in classrooms serving BIPOC and low-income students (e.g., Curran, 2017; Smith et al., 2016). In one urban first-grade teacher’s integrated instruction, text-based research but not inquiry experiences (e.g., observing phenomena, conducting experiments) were included (Howes et al., 2009). The exclusive focus on children’s reading circumscribed their learning about scientific processes and scientists’ use of literacy when creating and disseminating science knowledge. Teachers’ simultaneous and balanced attention to children’s learning in literacy, social studies or science, and disciplinary literacy is required.

The Current Study

We examined primary teachers' present integrated instructional knowledge and skill. Attention to teachers' goals and needs is instrumental in the effectiveness of professional learning (e.g., Desimone & Pak, 2017; Hubbard et al., 2020). For example, Hubbard et al. (2020) recognized their lack of attention to teachers' expectations as a constraint in their project's effectiveness when half of their surveyed teachers reported minimal or not enough learning. Consequently, our purpose was to gain insight into teachers' expectations. Rather than seeking insight into teachers' prior learning and lesson planning, we sought to understand their self-reported professional goals and needs. Our research question was: *What are primary teachers' goals and needs prior to integrated instructional professional learning?*

We view primary teachers' knowledge and skill as foundational to their integrated instruction and children's learning (e.g., Dwyer et al., 2016; Gavelek & Bresnahan, 2009). Teachers explain literacy and content area concepts and processes, offer practice opportunities, and give feedback. What teachers say and do makes the concepts and processes available to children. However, teachers' talk and actions also influence children's understandings (e.g., students as learners and future historians and scientists). Additionally, teachers' knowledge and skill are subject to change through experience and professional learning (Borko, 2004; Darling-Hammond et al., 2017), and analyses of their collective expectations reveals teacher-identified shared professional learning goals and needs.

Methods

The current descriptive study was a part of a larger analysis of elementary and middle school teachers' learning during a two-year professional learning project focused on integration of social studies into ELA time (Martin et al., 2018). In contrast to the larger analysis, the current study examined primary teachers' initial knowledge and skill.

Context and participants

Participants were teachers at a Title I primary school in a suburban, Midwestern school district. The school served 621 kindergarten through second-grade students (National Center for Education Statistics, 2021b) and had recently adopted new literacy curricula that included reading and writing of informational text. The school's reported student demographic profile was 85.2% White, 4.3% Black, 2.9% Asian, 1.4% Hispanic, and 5.8% Two or More Races. Also, 244 students were eligible for free or reduced lunch. In first and second grade, 40% of the incoming students were identified as reading below-grade-level. At the enrollment meeting, we invited all teachers who had signed up for the project to participate, and all but two consented.

Twelve kindergarten through second-grade teachers participated. Teachers were female, self-identified as Caucasian, and had 4-28 years of teaching experience. Their demographic and teaching backgrounds were reflective of the school's teaching population. Four of the teachers were pursuing or had completed graduate degrees. All teachers reported minimal prior integrated instructional professional learning and the absence of a dedicated social studies instructional block in their daily schedules.

Data Sources

Data sources included a survey and an interview. A team of five researchers specializing in social studies, literacy, and survey methodology developed the survey and interview. The survey included 17 questions. Nine questions focused on social studies and literacy instruction and were analyzed in the study. [The remaining questions sought teachers' input into their professional development activities.] The interview included six questions, and follow-up probes accompanied each question (e.g., "When it comes to [insert topic], about what do you most want to learn?"). A sampling of the questions can be found in Table 1.

Two researchers who were former elementary teachers and an elementary teacher who had 18 years of experience piloted the survey and interview. Piloting suggested the questions were clear and comprehensible, yielded details about teachers' professional goals and needs, and required 10-20 minutes for completion.

We collected data prior to the start of their professional learning, within the four-week period following the enrollment meeting. To distribute and collect the surveys, we used the Qualtrics platform. All teachers returned the survey. Then teachers completed the interviews individually, at a time of their choosing and in their empty classrooms. Although social studies integration was our focus, teachers were neither asked to avoid nor stopped from discussing other content areas. We audio-recorded all interviews. After two research assistants transcribed them, we checked and confirmed the transcripts' accuracy and completeness.

Data Analysis

We used thematic and discourse analytic coding procedures, constant comparison, and descriptive statistical calculations (Corbin & Strauss, 2014; Creswell & Plano-Clark, 2011; Yin, 2015). The first author analyzed the data, and the second author critically examined all analyses (e.g., Denzin, 2001). We began by downloading the data into Excel spreadsheets. For the survey's confidence and frequency-of-use questions, we tabulated teachers' responses and calculated means and ranges. For the remaining survey and interview questions, we separated teachers' answers into idea units (e.g., Chafe, 1985). We developed and iteratively applied emergent categories describing the focus of each unit. Then we (a) separated all coded units by category, (b) examined them for fitness and similarity, (c) re-coded units deemed too similar in meaning, and (d) resolved coding disagreements through discussion. When our second examination yielded no additional changes, we defined and compiled themes in the interview questions, and we tabulated and calculated means for the survey response questions. Lastly, we conducted a search for disconfirming evidence and a final check for fitness and redundancy. No changes were made, and the second author affirmed the lack of presence of additional themes and disconfirming evidence. Table 2 describes the categories and themes in the interview data.

Results

Analysis of the primary teachers' expectations for professional learning revealed an emphasis on their knowledge and skill in addressing children's social studies and disciplinary literacy learning during ELA time. Below, we describe teachers' goals and needs separately.

Primary Teachers' Goals

Teachers' professional learning goals included increased knowledge and skill in their simultaneous teaching of social studies. On the survey, eight teachers reported a desire to improve their integration (e.g., "How to better integrate the content areas into my literacy instruction"). During the interview, teachers noted their daily schedules did not include designated time for social studies and they wished to address social studies learning standards. Teachers also shared they were not satisfied with their existing integration, desired to increase their knowledge, and wanted to learn how to overcome instructional challenges (e.g., finding resources, achieving balance). For example, they said,

- "I'm mainly interested in the social studies because I feel like social studies and science have just kind of gone out the window. We don't really do really anything unless it's a fun thing, a tradition that they do every year" [Kennedy, 2nd grade],
- "So, I think just trying to really be more intent about those standards, because it's all of them in one week... So, I think trying to beef that unit up, so it has more in it to be more intent about teaching those standards" [Bella, Kindergarten],
- "I would want to know just more about what it is; I feel like I have an idea of what it is... and I just want to make sure that I fully understand how to do that" [Harper, 1st grade], and
- "Then I think I'll feel better about teaching it... because I don't feel comfortable about doing it, it almost feels like a hassle, and I don't want it to be that way" and "I want to get all that in there... it's hard to squeeze all that in and feel like it's really quality" [Kinsley, Kindergarten].

The focus was on improving their social studies integration.

Teachers' goals also included increased knowledge and skill in motivating and helping students to learn. On the survey, three teachers shared the goal of supporting their students' literacy and disciplinary literacy learning (e.g., "My hope is that I will also learn how to provide better support/scaffolds to my most struggling readers and writers along the way"). Also, during the interview, teachers highlighted their desire to accommodate students' social studies learning. Ava [2nd grade] shared, "Because kids have strengths in those areas and... kids love history, and we need to make sure that we include part of that in there." Cora [2nd grade] reported, "The kids are so excited, and it really innovates them to continue learning..." They focused on supporting children's learning in social studies, disciplinary literacy, and literacy.

Additionally, teachers' goals included increased knowledge and skill in creating integrated instructional units. On the survey, four teachers reported wanting to write the units (e.g., "I want to be able to write and execute integrated units"). During the interview, teachers also noted their desire to have units to use in the future. For example, Charlotte [1st grade] said, "I can't wait. I want to try to create units for the whole year so that we can kind of build on that as we go along." Her focus was on developing units for use in future instruction.

Primary Teachers' Needs

Teachers' needs corresponded to their goals of increased knowledge and skill in integrating teaching and support for children's learning in social studies and disciplinary literacy into ELA time. For example, they revealed a need for help with clarifying how disciplinary literacy learning is addressed within integrated instruction. Teachers' prior experiences involved teaching that emphasized students' reading or thematic teaching. Table 3 lists teachers' reported topics and projects. The table shows their integrated instruction included author studies, genre studies, and reading and writing skills. Also, in the interview, teachers discussed incorporating themes and informational text. For instance, they said,

- "I love teaching themey ways. Sure, I taught kindergarten for 15 years, so that's what we did all the time. And so, it's hard for me to not teach that way, but I feel like sometimes it's hard... to get the

theme in and all of our scales" [Julia, *1st grade*] and

- "We are integrating Storyworks Junior with our reading workshop format this year. I do like Storyworks Junior... it does provide nonfiction at their fingertips..." [Ella, *2nd grade*].

Their discussions did not include mention of prior experience in supporting children's learning to use historians' and scientists' literacy practices when creating and disseminating knowledge.

Additionally, teachers highlighted the need to expand their social studies and disciplinary literacy teaching. As Table 3 shows, their focus was scattered across topics; taught, on average, by three teachers; and did not include disciplinary literacy. Also, in the interview, several teachers claimed minimal experience. For example, Harper [1st grade] noted, "I don't have any other experiences with that either," and Emma [1st grade] said, "We talked about it briefly when I was in college. Like being taught how to do it. It was like a unit. But it was two chapters." Moreover, Table 4 describes their surveyed instructional foci and skills. The table shows teachers claimed to teach the featured foci and skills, on average, 1-2 times a semester and focused more often on children's literacy learning than their learning in social studies and disciplinary literacy. Teachers' reported integration of social studies and disciplinary literacy was not equal to their literacy teaching during ELA time.

Lastly, teachers emphasized their need to develop additional strategies for supporting children's social studies and disciplinary literacy learning. On the survey, teachers claimed they factored students' learning (e.g., assessment data, lesson goals) and logistical concerns (e.g., time, resources) into their modifications but felt least confident about their instructional support (e.g., helping students conduct research, differentiating for student needs). Table 3, which also lists strategies teachers reported using to help children read and write social studies texts, shows strategies (a) were each used, on average, by 3 teachers; (b) varied in the focus and level of help offered; and (c) did not include help with children's gaining experience in disciplinary literacy and in taking action to effect social change. Moreover, during the interview, some teachers highlighted use of specific strategies but others emphasized their lack of use. For instance, Olivia [1st grade] used explanation, inquiry, and driving questions during a national

symbols unit. She said, “I’ll start with just what is a symbol and investigating symbols and then creating our own symbols... so I try and start with a question. And then... letting kids choose the ones they’re interested in.” She offered instructional support for children’s inquiry and project creation. However, Kennedy [2nd grade] reported her economics and life-cycle units did not involve teaching and learning, saying, “I don’t teach it but I have a little money system where they can earn money and if they lose their eraser then they have to buy a new eraser because if I lose something I have to go buy something new” and “We haven’t done any learning... it’s more of just observing and reading about the chicks.” Their instructional support within the units contrasted and included minimal strategy use.

Discussion

Greater understanding of primary teachers’ goals and needs enables identifications of foci for future K-2 integrated instructional professional learning activities. Our analysis of teachers’ surveys and interviews extended prior research by representing their collective perspective and revealed teachers’ initial expectations focused on (a) learning more about how to integrate their support of children’s social studies and disciplinary literacy learning into ELA time and (b) expanding their future use of instructional foci, teaching strategies, and units. Teachers’ focus on their teaching practice (e.g., lesson planning, collaboration) is similar to previous studies (e.g., Hubbard et al., 2020), but the presence of an emphasis on supporting children’s social studies and disciplinary literacy learning contrasts with prior research. The emphasis is particularly significant in light of studies documenting inequities linked to teachers’ instruction (e.g., Howes et al., 2009); their focus addresses the noted imbalance between teachers’ addressing of children’s learning in content areas and in literacy during integration.

The results suggest that helping primary teachers to incorporate informational text and to support children’s reading of the texts is not sufficient for addressing their professional goals and needs. Children’s learning in science and social studies includes not only conceptual knowledge but also processes (e.g., inquiry, effecting social change) and disciplinary literacy. What also is required is a focus on children’s opportunities for learning social

studies and disciplinary literacy during ELA time. The study teachers discussed their teaching about texts and reading (e.g., text features, generalized reading strategies). However, they did not connect the teaching to children’s own reading and writing when creating and disseminating social studies knowledge.

In K-2 professional learning activities, instructional coaches, professional developers, and teacher educators will need to design learning opportunities that enable teachers’ increased knowledge and skill in supporting children’s social studies and disciplinary literacy learning. Figure 2 showcases a sample plan for one session. The session includes discussions, explanations, and practicing of reading and writing when creating and disseminating social studies knowledge. Additionally, teachers may gain exposure and experience to teaching strategies and instructional supports by reading about social studies integration, viewing classroom snapshots, evaluating curricula, and collaborating to plan lessons. Table 5 lists resources for use in these activities.

Finally, the current study highlights primary teachers’ emphasis when seeking to learn about integrated instruction. Our results offer greater understanding of their self-identified goals and needs. The insight holds potential for informing the efforts of instructional coaches, professional developers, and teacher educators who wish to address equitable K-2 literacy learning opportunities. Children, especially BIPOC and low-income students, can benefit from our finding that teachers’ expectations focus on improving their support of students’ social studies and disciplinary literacy learning during ELA time.

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Table 1

Examples of Interview and Survey Questions

Source & Focus	Examples
Survey	
<i>Needs</i>	<ul style="list-style-type: none">● “Rate how confident you are utilizing the following: - Text features... Helping students to conduct research...: Not confident, Somewhat not confident, Neutral, Somewhat confident, Confident, or Unsure.”● “On average, how often do you engage in the following: Teaching comprehension of nonfiction... Helping students conduct research...: Daily, 1 to 2 times a week, 1 to 2 times a month, 1 to 2 times a semester, 1 to 2 times a year, or Never.”● “What topics and projects, if any, did you use this year? In previous years?”● “Which strategies do you use to help your students read and write social studies texts?”
<i>Goals</i>	<ul style="list-style-type: none">● What do you want to learn about reading and writing as a result of participating in the grant?
Interview	
<i>Needs</i>	<ul style="list-style-type: none">● “Explain how you (a) teach social studies, (b) teach literacy, (c) assess your students’ learning, and (d) use units and projects in your classroom”
<i>Goals</i>	<ul style="list-style-type: none">● “What are your professional goals for (a) teaching social studies, (b) teaching literacy, (c) assessment, (d) project-based learning, and (e) lesson study?”

Table 2***Overview of Interview Coding***

Categories	Themes	Examples
Challenges	<i>Assessment, Balance, Standards, Text, Time, Work</i>	<ul style="list-style-type: none"> ● “That’s my other problem. It’s hard to find time.” ● “But it was so much work to put together and it’s just not practical.”
Create units	<i>Collaboration, Create more, Have ready-to-use</i>	<ul style="list-style-type: none"> ● “I really want to develop more unit plans in what we’re doing...” ● “I think I would definitely enjoy if units were already made that we could use...”
Instructional planning	<i>Children’s interests, Routines, Discussion, Standards-matching, Separate activities, Support, Text features</i>	<ul style="list-style-type: none"> ● “... And we try to think of an interesting topic... So you get them interested in just diving into whatever it is we’re focusing on.”
Learning to teach	<i>Fitting into mandates, How to do, Not very good</i>	<ul style="list-style-type: none"> ● “...and learning how to do it and doing it well.” ● “...I think project-based learning is really important, but I’m not very good at coming up with it...”
Prior experiences	<i>Language Arts, Learning, No experience, Science, Social Studies, Strategies, Theme-based</i>	<ul style="list-style-type: none"> ● “... our community helpers, seems like all of our standards are really met in that theme...” ● “We talked about it briefly when I was in college...”
Student learning	<i>Answering questions, Knowledge, Citizenship, Community, Themselves, Motivation</i>	<ul style="list-style-type: none"> ● “It’s just something that will help my classroom learn.” ● “... and kids love history and we need to make sure that we include part of that in there.”
Teach social studies	<i>Addressing goals, Enhance teaching, Shortchanged</i>	<ul style="list-style-type: none"> ● “But that’s the only social studies theme that we do a lot of... So, I really would love to beef that up. Because I think we could do a lot more than what we do.”
Want to learn more about it	<i>Confirm thinking, Like to learn, Not familiar, Want to do</i>	<ul style="list-style-type: none"> ● “I would want to know just more about what it is; I feel like I have an idea of what it is. And I just want to make sure that I fully understand how to do that.”

Table 3***Teachers' Reported Use of Topics and Strategies***

Question	# of Teachers ^a
<i>What topics and projects, if any, did you use this year? In previous years?</i>	
Community helpers	5
Genre studies (e.g., fairy tales)	5
Life cycles	5
Space	5
Animals	4
Insects	4
Ocean	4
Presidents	4
Citizenship & Democracy	3
Economics	3
Famous People	3
Holidays	3
Seasons	3
Zoo	3
American Revolution	2
Author Studies (e.g., Mo Willems)	2
Black History	2
Habitats	2
Johnny Appleseed & Apples	2
Matter	2
Reading and Writing Skills	2
Weather	2
<i>Which strategies do you use to help your students read and write social studies texts?</i>	
Teaching text features	6
Discussion	3
Teaching reading strategies (e.g., predictions)	3
Selecting texts (e.g., nonfiction)	3
Creating projects	2
Integrating literature	2
Modeling	2
Setting reading purposes	2
Visual aids	2

^aIncludes identifications by 2 or more teachers.

Table 4***Teachers' Reported Use of Instructional Foci and Skills***

Question	Teachers' Response – Mean Rating
<i>How often do your lessons involve...?</i>	
Project-Based Learning (PBL)	Never
Conducting research	Never
Nonfiction comprehension	1-2 times a year
Producing knowledge	1-2 times a semester
Making connections between knowledge/experience and social problems/public policy	1-2 times a semester
Addressing central ideas to produce complex understandings	1-2 times a semester
Considering core democratic values during decision-making	1-2 times a semester
Span disciplines/subjects, bridge time/place, or blend knowledge/skills	1-2 times a semester
Writing informational text	1-2 times a semester
Read aloud informational text	1-2 times a month
Extended conversational exchanges that build shared understandings	Daily
Indiana ELA state standards	Daily

Table 5***Resources for Supporting Teachers' Professional Learning in Social Studies Integration***

Resource	Description
“Authentic Literacy Activities for Developing Comprehension and Writing” (Duke et al., 2006/2007)	Describes teachers’ disciplinary reading and writing tasks
College, Career, and Civic Life (C3) Framework for Social Studies State Standards: Guidance for Enhancing the Rigor of K-12 Civics, Economics, Geography, and History (Swan et al., 2013)	Describes social studies inquiry processes
Engaging students in disciplinary literacy, K-6 (Brock et al., 2014)	Showcases disciplinary literacy instruction
“Inquiry-Based Learning: Developing Student-Driven Questions” (Edutopia, 2015, August 24)	Introduces question-driven inquiry
“Reading and Writing in History” (Annenberg Foundation, n.d.)	Introduces supporting of disciplinary literacy
“Teacher's Guides and Analysis Tool” (Library of Congress, n.d.)	Offers resources for using primary sources
“Using ‘Realia’ to Build Background Knowledge” (WETA Public Broadcasting, 2019)	Showcases the teaching strategy

Figure 1

Classroom Symbol Sample Unit

<i>Unit Questions</i>				
<p><i>CQ</i>: Should our classroom have its own symbol? <i>SQ</i>: Why do people use symbols? What symbols do people use? How are symbols created? How do historians read and write?</p>				
<i>Learning Standards</i>				
<p><i>SS</i>: 1.1.2 <i>ELA</i>: 1.RN.1, 1.RN.2.1, 1.RN.2.2, 1.RN.4.2, 1.RV.3.2, 1.W.1, 1.W.3.2, 1.W.5, 1.SL.2.1, 1.SL.3.2, 1.SL.4.2, 1.ML.2.1</p>				
<i>Questioning</i>				
Lessons 1-3				
<p>Teacher leads discussion of two symbols. Class hunts for, documents, and shares symbols in their school.</p>	<p>Class examines photos and discusses how people show pride and belonging. Teacher teaches noticing graphical details mini-lesson. Class compiles a listing of the symbols.</p>	<p>Teacher reviews prior lessons and asks CQ unit question. Teacher teaches main ideas mini-lesson and reads aloud symbols book. Class reviews mini-lesson and constructs summary anchor chart.</p>		
<i>Constructing Knowledge</i>				
4	5	6	7	
<p>Students conduct research on national symbols. Teacher teaches minilessons about locating information, taking notes, and recording important words and “just enough” information. Class discusses and creates anchor charts of their learning.</p>				
8	9	10	11	
<p>Research continues. Teacher teaches minilessons about organizing information, sourcing, and corroboration. Class discusses and creates anchor charts of their learning.</p>				
<i>Sharing Knowledge</i>				
12	13	14	15	16
<p>Teacher orchestrates students’ creation and sharing of posters teaching about national symbols. Class discusses SQ unit questions and reaches consensus about their need for a symbol.</p>		<p>Students design and share symbols. Teacher leads minilessons on visual design principles, design justifications, and evaluation. Class votes on adoption and constructs a letter informing families of their new class symbol.</p>		

Figure 2

Sample Professional Learning Session

I. Define	
<i>A. Inquiry Arc</i>	<i>B. Question Types</i>
<ol style="list-style-type: none"> 1. Display Dimension 1 in the “C3 Framework Disciplinary Inquiry Matrix” (Swan et al., 2013, p. 66). Explain the arc’s first step (creating discipline-specific questions) 2. Lead discussion comparing and contrasting social scientists’ questions. 	<ol style="list-style-type: none"> 1. Introduce compelling questions and supporting questions (Swan et al., 2013, p. 17). 2. Using sample topic, lead teachers’ practicing of generating these questions.
<ol style="list-style-type: none"> 3. Explain students’ role (raising questions). Ask teachers to share former students’ best curiosity-driven questions. 4. Introduce teachers’ support: Students first need to have an experience that causes them to feel doubt and uncertainty. Teachers orchestrate this. 	<ol style="list-style-type: none"> 5. Explain teachers’ support: Getting students to raise questions. 6. Lead discussion of teachers’ prior experience with this.

II. Problem Solve	
<i>How Will We Get Students to Generate Questions to Research?</i>	
<ol style="list-style-type: none"> 1. Introduce strategy: reading of primary sources. Play REAP video. 2. Review, orchestrate, and debrief teachers’ practicing of the strategy, using a sample primary source text. 	
<ol style="list-style-type: none"> 1. Using another sample primary source text, invite teachers to read, generate questions, and choose one compelling question students would be interested in researching. 2. Lead discussion of (a) the questions and (b) how students could be supported to do the same activity. 	

III. Plan

Into the Classroom

Display and introduce [“Teachers’ Guide: Analyzing Primary Sources”](#) (Library of Congress, n.d., p.1).

Introduce task (Try out the strategy in your classroom: Teach students that readers think about what our social studies reading makes us wonder about people and people’s lives). Help teachers to choose texts from the Library of Congress’s (n.d.) [“Classroom Materials: Primary Source Sets”](#) collection and sketch their lesson plans.

IV. Wrap Up

Our Learning

Invite teachers to complete exit slips. Review key points:

1. The first step of the inquiry arc involves finding questions to research.
2. Students do this after having an experience that causes them to feel doubt and uncertainty.
3. Teachers support students by orchestrating the experience (e.g., primary source reading).