Teaching Young Learners with the C3 Framework

Asking Their Own Questions: Supporting Student-Initiated Inquiry in Third Grade

Ryan E. Hughes and Kimberly Heckart

All the knowledge we have is a result of our asking questions; indeed, question-asking is the most significant intellectual tool human beings have.

-Neil Postman1

Learning to ask questions is fundamental to building knowledge. Asking questions is essential for young learners because it allows them to consider what they want to know about a topic, encourages them to think for themselves, and gives them ownership over their social studies learning. Therefore, it is no surprise that asking questions was the most frequently named skill for K–5 students included in the College, Career, and Civic Life (C3) Framework for Social Studies Standards.² In fact, over 150 standards contained in the C3 Framework mention that elementary students should be able to "question," "inquire," or "request." To support students in achieving these standards, teachers must explicitly teach students how to craft, evaluate, and use various types of questions.

The C3 Framework articulates a common process for social studies inquiry in the elementary grades known as the Inquiry Arc. The Inquiry Arc includes four dimensions, where questioning serves as the starting point for learning:

Dimension 1: Developing Questions and Planning

Inquiries

Dimension 2: Applying Disciplinary Concepts and

Tools

Dimension 3: Evaluating Sources and Using Evidence

Dimension 4: Communicating Conclusions and

Taking Informed Action

The framework differentiates between two types of questions that guide inquiry: compelling and supporting questions. Compelling questions are debatable questions that often focus on enduring issues; whereas, supporting questions focus on the "descriptions, definitions, and processes" that guide

the development of the inquiry and help students construct the knowledge needed to answer the compelling question.⁴ Ultimately, teachers should support student-initiated inquiry, whereby the students develop and pursue the questions that are meaningful to them. Student-initiated inquiry is important because it allows the students' interests and curiosities to guide instruction, which may improve students' motivation and engagement.⁵ Moreover, through questioning, students ultimately develop a core skill needed to advance their social studies learning and engage in civic life.⁶

Yet, as the C3 Framework notes, "students, particularly before middle school, will need considerable guidance and support from adults to construct questions that are suitable for inquiry." Therefore, in this article, we share how Kim Heckart, a third-grade teacher and co-author of this paper, supported students in formulating and researching their own inquiry questions. During the 2017–2018 school year, Kim led students through seven social studies inquiries aligned with the C3 Framework. For each investigation, she posed an overarching compelling question, and students generated and researched their own supporting questions. Kim used a step-by-step process known as the Question Formulation Technique (QFT) to scaffold students' development of supporting questions.

Developed by the Right Question Institute (rightquestion. org), the QFT involves six steps whereby students brainstorm and revise inquiry questions, research answers, and reflect on the inquiry process. Specifically, students do the following during each step of the QFT process:

Step 1: Analyzing an initial stimulus and

developing questions.

Step 2: Categorizing the questions as open-

and closed-ended questions.

Revising the questions. Step 3:

Prioritizing which questions to Step 4:

research.

Step 5: Investigating the questions.

Reflecting on the inquiry process.8 Step 6:

Although the QFT inquiry process is designed for learners of any age studying any content area, it connects closely with the dimensions of the C3 Framework. Table 1 connects the dimensions of the C3 Inquiry Arc to the steps of the QFT process.

Kim first learned about the QFT when she participated in a professional development workshop held in 2017. Although she was already using the C3 Inquiry Arc in her social studies teaching at that time, she saw the QFT as a process to help the students' interest guide their social studies learning while simultaneously deepening their ability to ask questions:

I was using the Inquiry Arc, but I was the one thinking of all the questions the students researched. I thought since students are often encountering many [social studies] topics for the first time in school, they would not have enough background knowledge to think of questions. But since the QFT starts with students analyzing sources, it's a concrete process that helps bridge them to asking questions they are curious about.

In this article, we highlight how Kim used the QFT to facilitate the students' development of supporting questions during an inquiry focused on the Meskwaki Nation, an Indigenous nation located in Iowa. In 2017, Kim also participated in a professional development workshop provided by the Meskwaki Museum and Cultural Center focused on teaching about the Meskwaki Nation's history and culture. The Meskwaki Settlement is located near Tama, Iowa, where the Meskwaki purchased 80 acres of land in 1857. The Meskwaki Settlement now includes nearly 7,800 acres and is home to about 1,400 Meskwaki people. Kim explained: "The workshop was called Teaching Back to Erasures, and it helped me think about the importance of including the Meskwaki in my classroom; their settlement is just an hour from our school." The elementary school social studies curriculum is often "notoriously silent" about Indigenous sovereignty and nationhood and rarely focuses on the presence and diversity of Native nations today.9 In what follows, we describe how Kim scaffolded the QFT process as the students researched the compelling question: Who are the Meskwaki?

Step 1: Analyzing Sources to Prompt Questioning

In Step 1 of the QFT process, teachers support students in analyzing sources as a springboard to developing inquiry questions. Elementary teachers can select sources that include various formats, such as photographs or visuals, objects or artifacts, written documents, posters, maps, cartoons, video clips, artwork, and/or sound recordings. For example, Kim selected several sources about the Meskwaki Nation's history and culture provided during the Teaching Back to Erasures workshop. Many of these sources are available on a website created and maintained by the Meskwaki Nation, meskwakipowwow.com, and the State Historical Society of Iowa, iowaculture.gov. Examples of these sources include:

- A map of the Meskwaki settlement generated in 2017 by Google Maps
- A historical image of the Meskwaki weaving in a wickiup
- A historical newspaper clipping about the Meskwaki Code Talkers
- A contemporary image of a Meskwaki Powwow celebration from 2012
- A map showing Meskwaki land purchases, 1857-2004
- A contemporary image of the Meskwaki New Settlement school from 2012

Kim also selected an analysis graphic organizer to ensure that the students carefully observed the people, objects, and activities in the sources. Providing a graphic organizer can help

Table 1. Connecting the Inquiry Arc to the QFT

Dimensions of the C3 Inquiry Arc	Steps of the Question Formulation Technique
Developing Questions and Planning Inquiries	 Analyzing an initial stimulus and developing questions Categorizing the questions as open- and closed-ended questions Revising the questions Prioritizing which question
2. Applying Disciplinary Concepts and Tools	
3. Evaluating Sources and Using Evidence	5. Investigating the questions
Communicating Conclusions and Taking Informed Action	6. Reflecting on the inquiry process

students focus their analysis and ensures they are prepared to generate questions. Table 2 includes a list of resources where elementary teachers can find stimuli and analysis graphic organizers as they plan the first step of the QFT process.

Kim split the class into small groups of 2–4 students and asked each group to analyze a particular image (see Image 1). First, the student groups analyzed the images and recorded their observations on graphic organizers. Then, Kim provided the students with the Disciplinary Question Tool (Handout 1) to help them begin to generate supporting questions. Kim created the tool to ensure the students' questions aligned with disciplinary concepts in social studies. It includes sample questions disciplinary experts might ask about behavioral sciences, economics, geography, history, and political science. As groups crafted questions, Kim encouraged them to abide by the following Rules for Producing Questions:

- 1. Ask as many questions as you can.
- 2.Do not stop to discuss, judge, or answer any question.
- 3. Write down every question exactly as it is stated.
- 4. Change any statement into a question. 10

Furthermore, Kim emphasized that students should try to think of at least one question for each discipline included on the Disciplinary Question Tool. Working as a group, the students brainstormed questions, borrowing from the examples provided and recorded by them on the Record Your Questions graphic organizer (Handout 2). Thus, the Disciplinary Question Tool supported the third-grade students in constructing questions driven by their interests and curiosities that also related to the social studies

disciplines. For example, after analyzing the images related to the Meskwaki Nation, the students asked questions such as:

- Do they [the Meskwaki] still use wagons? (Economist)
- Was [this Powwow] at the Meskwaki settlement? (Geographer)
- Do they [the Meskwaki] still do the Powwow dance? (Historian)
- Why are they [the Meskwaki Code Talkers] needing to translate messages? (Political Scientist)

Step 2: Categorizing Open- and Closed-Ended Questions

In Step 2, students evaluate their questions to determine whether they are open-ended or closed-ended questions. This step aims to help students understand how the construction and phrasing of a question shapes the extent of the information they can receive. To begin, Kim provided the students with the following definitions for closed-ended and open-ended questions:

Closed-ended questions: Questions answered with yes/no or a single word.

Open-ended questions: Questions answered with an explanation.

Then, students met with their small groups to reread their questions and labeled each as either open-ended or closed-ended. Kim emphasized that students should pay attention to the first word of the questions because that helps determine the kind of information you can receive. After students had the opportunity to categorize the questions,

Table 2. Resources for Finding Social Studies Stimuli

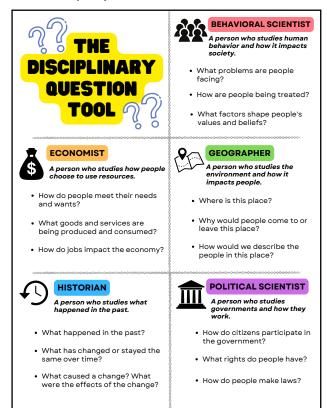
Resources for Finding Social Studies Stimuli		
Digital Public Library of America, https://dp.la/	Over 46 million images, texts, and videos on a wide range of social studies topics	
DocsTeach, National Archives, www.docsteach.org/	Thousands of primary sources related to U.S. history	
Newsela, https://newsela.com/	Includes news articles about current events and other social studies resources for elementary-aged students	
TEDEd, https://ed.ted.com/	Hundreds of short educational videos on various social studies topics	
Library of Congress, Classroom Materials, www.loc. gov/programs/teachers/classroom-materials/	Primary source sets, lesson plans, and presentations about state and national history	
Resources for Finding Analysis Graphic Organizers		
Colorado Department of Education, Elementary Primary Source Sets, www.cde.state.co.us/cosocial- studies/pssets	Graphic organizers for elementary-aged students for analyzing artifacts, artwork, documents, films, maps, newspapers articles, oral histories, pictures/photographs, political cartoons, and posters	
Library of Congress, Teacher's Guides and Analysis Tool, www.loc.gov/programs/teachers/getting- started-with-primary-sources/guides/	Graphic organizers for analyzing many formats, including primary sources, written texts, charts/graphs, maps, motion pictures, newspapers, oral histories, photographs/prints, political cartoons, sheet music/songs, and sound recordings	
National Archives Document Analysis Worksheets, www.archives.gov/education/lessons/worksheets	Graphic organizers for elementary-aged students for analyzing photographs, written documents, artifacts/objects, posters, maps, cartoons, videos, sound recordings, and artwork	



Image 1. A small group of students selecting priority questions and writing them on sticky notes

Kim led a class discussion about the differences between question types. During the discussion, Kim pushed the students to consider the pros and cons of both question types, and she recorded the students' ideas on chart paper. To further support students, teachers might follow up this discussion by providing students with the Question Types handout (Handout 3). Teachers can facilitate a discussion about the information on the handout and ask the students to complete the Question Types Sort (Handout 4) as a formative assessment.

Handout 1. Disciplinary Question Tool



Step 3: Revising Questions

Once students understand the difference between open-ended and closed-ended questions and have a sense of the difference in information the questions request, they can engage in Step 3: Revise the question, in which students change questions from open-ended to closed-ended and vice versa. Students can work in groups to change some of their questions from one type to the other, using the Question Types handout (i.e., Handout 3) to support them. For example, students changed these questions from one type to the other:

- Do they [the Meskwaki] still use wagons? → How do they [the Meskwaki] use wagons today?
- Do they [the Meskwaki] still do the Powwow dance? → Why do they [the Meskwaki] still do the Powwow dance?

At the end of Step 3, students should know how to change questions from one type to the other and the pros and cons of both question types.

Step 4: Prioritizing Questions to Research

The purpose of Step 4 is to support students in selecting questions to research. Some questions will be more pressing, relevant, or important than others to students depending on the purpose of selecting questions.11 Therefore, they recommend teachers state the goals for the research at this point to help students prioritize questions. For example, Kim explained:

Handout 2. Record Your Questions graphic organizer

ନ୍ମି? Record Your Questions 🤊 🤊
NAME(S):
BEHAVIORAL SCIENTIST
ECONOMIST
GEOGRAPHER
HISTORIAN
POLITICAL SCIENTIST
WHAT ELSE?
WHAT ELSE?

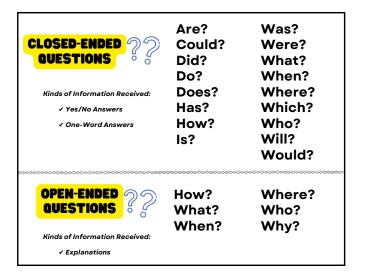
At this stage [Step 4], I tell the students, "Okay, we're going to prioritize which questions to research, and we need to remember that the research should help us answer the compelling question." I try to get them to think about *need-to-know questions*, or questions we really need for understanding the compelling question vs. *what-to-know questions*, which are questions we might be interested in but don't help us get that compelling questions answered.

After hearing Kim explain the importance of prioritizing questions, the third-grade students reassembled into small groups. They selected one priority question to research for each disciplinary role on the DQT. When the groups decided on a question to research, they wrote it on a sticky note and stuck it on a piece of chart paper at the front of the room next to the image they analyzed (see Image 2). At this point in the process, Kim asked the small groups to present their completed analysis graphic organizers and the priority questions they selected to research. The presentations helped the students better understand the topic by learning about each other's images and questions.

Step 5: Investigating Questions and Sharing Conclusions

In Step 5, students pursue the answers to their questions and share their conclusions. "Once I can see what the students are interested in researching, then I can locate the additional sources we need," Kim explained. "I've used everything from websites to books from the school library to newspaper articles." For the Meskwaki Nation inquiry, Kim began by having students explore portions of the Meskwaki Annual Powwow website, meskwakipowwow.com. Then students read several handouts about the Meskwaki Nation that Kim received during the *Teaching Back to Erasures* workshop, which are also located at www.meskwaki.org/history. Often,

Handout 3. Question Types



Kim would preview the reading materials and only focus on the subheadings that would be most helpful to the students. During these lessons, if a group found the answers to their questions, they took the sticky notes off the chart and wrote the answers on the back. For example, students wrote the following questions and answers:

- Do they [the Meskwaki] still use wagons? Yes, but more people use cars.
- Was [this Powwow] at the Meskwaki settlement? Yes, every August.
- Do they [the Meskwaki] still do the Powwow dance? Yes, they do it to celebrate their culture.
- Why are they [the Meskwaki Code Talkers] needing to translate messages? The enemy understood English but couldn't understand Meskwaki.

After researching, each group came to the front of the room and presented their sticky notes. These presentations offered students the opportunity to learn from one another about content and co-construct knowledge to deepen their understanding of the compelling question: Who are the Meskwaki? Students responded to the compelling question by drawing an illustration and narrating what they drew on a classroom digital blog called Seesaw:

The Meskwaki bought their land near Tama, Iowa, and that's where their settlement is. They have their own water tower, school, and a casino right by the hotel. Like I said, they have their own school where they can learn the Meskwaki language. (Allison)

They are a Nation in Tama, Iowa. It's called a Settlement. They have a water tower there and it says Meskwaki on it. And they have powwows and the green corn harvest dance in the fall. And they have a fresh food market and their own school on the settlement. In World War II, there were 19 Meskwaki code talkers. (Brennan)

Handout 4. Question Types Sort

Closed-Ended Questions	Open-Ended Questions
What is the population of my state?	What does it mean to make a difference in society?
Who is the mayor of our town?	Who is important in our community?
Where is the capital of my state?	Where are the best places to learn about the history of our community?
When did the United States become a nation?	When should we break unfair rules or laws?
Is it important to listen to other people in our community?	Why do we have money?
Can supply change demand for goods in the economy?	How would our lives be different if we lived in a different kind of community?
Which is better, a map or a globe?	How have the achievements of women contributed to the development of our community?

Step 6: Reflecting on the Process

The final step of the QFT process asks students to reflect on the inquiry process. Kim often integrated the reflection process with Step 5 when students presented the answers to questions. As students presented, Kim asked them to consider what they learned about the content and inquiry process. For example, when presenting their research on the Meskwaki Nation, one group could only find the answers to one priority question. Kim used this as an opportunity to support reflection about developing answerable questions that support understanding the compelling question. Through these reflective discussions, Kim supported students in honing their understanding of the inquiry process. Teachers can structure the reflection process in a variety of ways, including

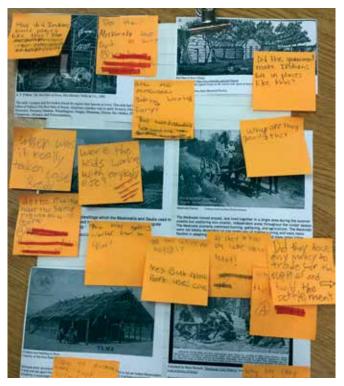


Image 2. Sources related to the Meskwaki Nation and students' sticky notes with their supporting questions and answers

individual, small group, or whole group reflections using the following questions:

- What did you learn?
- Why is learning to ask your own questions important for learning?
- What did you learn about the content that we are studying?
- How did you learn the content?
- How did you feel now about asking questions?
- What did you like about the work you did?
- How can you use what you learned about asking questions?12

Conclusion

While calls for K-5 student-initiated inquiry are plentiful in the C3 Framework, Kim's classroom provides a glimpse into these practices in action. Using the QFT process, the thirdgrade students used questions sparked by their interests and curiosities to guide their social studies learning. We hope that many elementary teachers engage their students in the QFT process using the handouts and resources provided here to support young learners in building social studies knowledge through inquiry.

Notes

- 1. Dan Rothstein and Luz Santana, Make Just One Change: Teach Students to Ask Their Own Questions (Cambridge, MA: Harvard Education Press,
- 2. National Council for the Social Studies, 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 (Silver Spring, MD: NCSS, 2013).
- 3. Tanya S. Wright and Lisa M. Domke, "The Role of Language and Literacy in K-5 Science and Social Studies Standards," Journal of Literacy Research 51, no. 1 (2019): 5-29, https://doi.org/10.1177/1086296X18821141.
- 4. National Council for the Social Studies, College, Career, and Civic Life (C3) Framework, 23.
- 5. National Council for the Social Studies, College, Career, and Civic Life (C3)
- 6. National Council for the Social Studies, College, Career, and Civic Life (C3) Framework.
- 7. National Council for the Social Studies, College, Career, and Civic Life (C3) Framework, 25.
- 8. Rothstein and Santana, Make Just One Change, 4.
- 9. Sarah B. Shear, Leilani Sabzalian, and Lisa Brown Buchanan, "Affirming Indigenous Sovereignty: A Civics Inquiry," Social Studies and the Young Learner 31, no. 1 (2018): 12.
- 10. Rothstein and Santana, Make Just One Change, 43.
- 11. Rothstein and Santana, Make Just One Change.
- 12. Rothstein and Santana, Make Just One Change, 121.

Ryan E. Hughes is an assistant professor in the Department of Teacher Education and Higher Education at the University of North Carolina at Greensboro. He can be reached at rehughe2@uncg.edu.

Kim Heckart is a third-grade teacher at Prairie Ridge Elementary School in Cedar Rapids, Iowa. She can be reached at kheckart@crprairie.org.