



Zooming Inquiry: Online Teaching with the Pomodoro Technique

Kathy Swan, Andrew Danner, Meghan Hawkins, S.G. Grant, and John Lee

When the pandemic shut schools down in the spring, teachers mobilized the educational home front and taught themselves how to navigate familiar and unfamiliar instructional challenges in the virtual classroom. Say “Zoom” to a group of teachers now and you might see them twitch, tear up, or roll their eyes. Ask teachers how they managed inquiry on Zoom and you may wish you were *more than* six feet apart.

But here we are: a new school year, a raging pandemic, and some of the most momentous events that this country has ever experienced. The year 2020 brought us the COVID pandemic and all of the existential questions that are central to social studies (e.g., What is the balance between freedom and security? Will the economy recover? Will these crises bring out the best in us?). George Floyd’s callous death at the hands of the Minnesota police triggered a Black Lives Matter awakening across the country at the same time the country was opening up from the patchwork of state quarantine efforts. And, if that were not enough, a generation-defining presidential election is in full swing.

Social studies educators cannot sit this year out.

In this article, we summon George Orwell’s famous quote about the “power to face unpleasant facts”¹ as we tackle Zoom, inquiry, and the current events that are shaping our world. We begin by introducing an idea for teaching online, the Pomodoro method, in which we break an inquiry into 25-minute blocks

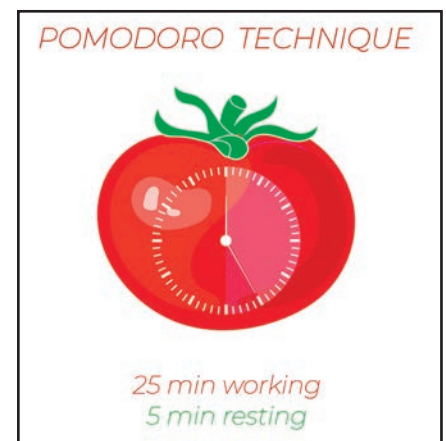
of instruction. Then, we annotate a focused inquiry that we wrote this summer about the Black Lives Matter protests using the compelling question, “Is there anything new about the 2020 protests?” Within the annotation, we suggest how a teacher might structure the instructional blocks if she was teaching online and how those blocks might pedagogically stack to help students develop stronger inquiry skills.

The Pomodoro Method and Teaching Inquiry

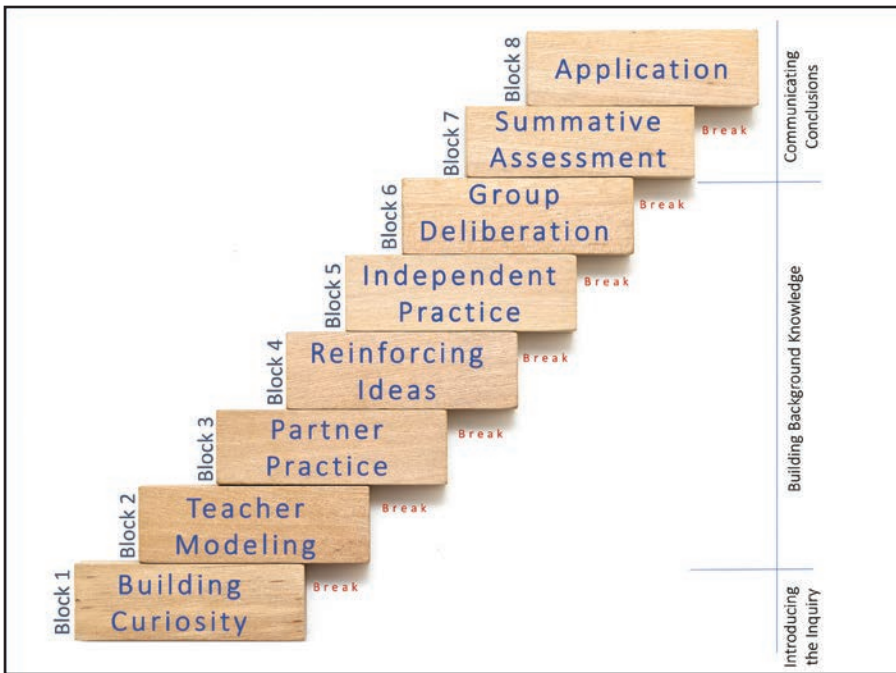
One of the biggest complaints about online school is the zombie-like after effects of spending too much time focused on a screen. As a result, online instructional days often feel endless and, at times, futile as we try to replicate face-to-face instructional practices in remote learning environments.

We were intrigued when we came across an article detailing the impact of a time management strategy,² the Pomodoro method, on making people more awake and productive in their work and home lives. The Pomodoro

technique was invented by Francesco Cirillo, an Italian business student in the 1980s. Cirillo broke down his work into 25-minute intervals, separated by short breaks. Each interval is known as a pomodoro after the tomato-shaped kitchen timer that Cirillo used to time his intervals. (Pomodoro is the Italian word for “tomato.”) After three pomodoros, he took a longer 15–30-minute break.



We wondered what would happen if we applied this same strategy to teaching the Inquiry Design Model (IDM) blueprint featured in the next section. We began by breaking the inquiry apart into three major instructional parts: (1) Introducing the Inquiry; (2) Building Background Knowledge; and (3) Communicating Conclusions. From there, we started working through



Eight Stacked 25-Minute Pomodoro Instructional Blocks

25-minute instructional blocks (or pomodoros) that would fall under each part using the focused inquiry that we detail in the next section. In total, we planned for eight pomodoros that could be “stacked” if teachers had 30-minute, 60-minute, or 90-minute online classes. For example, if a teacher had 60-minute classes, Monday through Friday, she could stack two instructional blocks of this inquiry each day and the inquiry would take four days of instruction.

We thought of each instructional block as a 25-minute learning experience that we summarized with a one-word descriptor. In doing so, we focused on the core pedagogical purpose of that particular block, thinking strategically about how each block could be securely built on top of the previous blocks as students practiced discrete but interdependent skills. In the implementation of this inquiry, we began with a Staging the Compelling Question exercise and identified the core purpose of that block as *building curiosity for students*. The teacher can then leverage that curiosity as she moves to the next instructional block where she *models* the historical practice of analyzing change over time. The third instructional block asks students to *practice* skills needed in instruc-

tional blocks four (*reinforcing ideas*), five (*independent practice*), and six (*group deliberation*). Blocks four through six provide formative experiences with content and skills so that the teacher can assess student knowledge in Block Seven. Together, these seven blocks provide the foundation for *applying* ideas within the Taking Informed Action (Block 8) part of the blueprint. See the diagram above.

Five- to ten-minute breaks in between pomodoros are critical to this technique, especially when teaching online. This summer, we tried out this approach and found that, when we cued a break, we had to instruct students to mute themselves and then stand up and move away from a computer or screen. Otherwise, students would just switch to another browser or device that undercut the cognitive break they needed before the next block/pomodoro. We learned that literally moving (e.g., jumping jacks, jogging up and down stairs, getting a drink of water) was the key to a successful break and subsequent pomodoro.

Of course, all classroom instruction is context and student dependent. We planned this inquiry for the start of the school year, assuming that many of our students had little experience with inquiry and would likely need extra

scaffolding when reading sources and making evidentiary arguments. Focused inquiries usually take 1-2 class periods, but we stretched this one out so that we could linger a bit on the skill-building parts of the inquiry setting foundational work around questions, tasks, and sources. Additionally, we assumed that the inquiry instruction would take place entirely online and utilized breakout rooms, polling, and chat box features of the online platform Zoom in order to create more dialogue between students and the teacher.

In the next section, we introduce the inquiry that we wrote to begin the school year focusing on the compelling question, “Is there anything new about the 2020 protests?” From there, we detail the eight online pomodoros we envision for the inquiry and how teachers might utilize the online meeting space features to bring instructional energy and interactivity into the inquiry.

Anatomy of a Focused Inquiry: Is There Anything New about the 2020 Protests?

The Black Lives Matter protests this past summer were a curricular call to action for social studies. As the Illinois State Board of Education rightly notes, returning to school in 2020 “is not ‘business as usual’ but rather the convergence of a new reality” predicated upon

... the COVID-19 pandemic exacerbating economic inequalities, heightening the digital divide, and worsening conditions for students whose mental and physical health and safety was already at risk. The brutal death of George Floyd and the days of nationwide protests in its wake call upon us as educators to recommit to eliminating all forms of racism in our school policies.... We must root our curricula in the context of what students see in the world around them. We must value difference.³

Social studies teachers must lead this charge and we developed this inquiry to address the challenge using a focused IDM blueprint template.⁴

The inquiry is framed by the compelling question, “Is there anything new about the 2020 protests?”⁵ The purpose of this question is to have students examine change and continuity in civil rights protests that have occurred within the last century. In doing so, students view the most recent Black Lives Matter protests within a larger historical context and understand how marches can become tipping points for social change. Designed for the beginning of the school year, the inquiry provides students an accessible gateway to primary source analysis through the use of a variety of sources.

The inquiry begins with a Staging the Compelling Question exercise asking students to think about the 2020 protests and what questions they might have about protests in American history. We constructed the first supporting question, “What are similarities and differences between historic and modern marches that aimed to restrict the rights of citizens?” and the accompanying formative performance task to accomplish two things. First, we wanted students to confront the reality of overt racism today and to dispel a fundamental misconception some students bring to social studies that *racism does not exist anymore in this country*. Students accomplish this goal through their work on a Venn Diagram comparing the similarities and differences between historic and modern marches that aimed to restrict the rights of citizens. Second, we wanted an opportunity for the teacher to model ways of drawing inferences from photographs and to model the development of a Venn Diagram that students would replicate in Formative Task 2.

For the second supporting question—“What are similarities and differences between historic and modern civil rights protests?”—students are given the chance to explore multiple

civil rights protests, both historical and contemporary. In order to build a broader understanding of how protest has evolved over time, students study images from five examples of civil rights protests, spanning the past 100 years. Students replicate the Venn Diagram model from the first formative task comparing similarities and differences between protests using images from the 2020 Black Lives Matter protests, the New York Silent Parade of 1917, the Selma-to-Montgomery marches of 1965, the Million Man March in Washington, D.C., in 1995, and the Ferguson, Missouri, protests of 2014.

Our decision to split this inquiry into two distinct supporting questions was deliberate—we did not want students directly comparing protests that sought to restrict the rights of American citizens with civil rights protests, fearing simplistic comparisons that gave equal credence to both. Furthermore, we chose protests with markedly different goals so that students would replicate the modeled *skills*, rather than the responses, later in the inquiry.

Using the analysis from the formative work of the inquiry, students are asked to answer the compelling question with an evidentiary claim as the summative argument task. Students’ arguments will likely vary, but could include some of the following:

- The 2020 protests are similar to historic civil rights protests in that both shared similar goals, represented a diverse cross section of Americans, and occupied public spaces.
- The 2020 protests are different from protests in the past because current protests are occurring simultaneously across the country and are more spontaneous than historic protests for civil rights.

This inquiry culminates with a Taking Informed Action experience in which students find someone they know who may have participated in a protest (either currently or in the past) and have a con-

versation with them about why they did/did not participate and whether they believe participation made a difference. This will encourage students to see these events not just as images in the news, but as actual events that have impacted the lives of people they know. Any students unable to have a conversation with a veteran of any protest should be encouraged to research a first-hand account of someone who took part in a protest to add to the discussion. These conversations could be leveraged into a whole class discussion about the impacts of protests on the local community.

We understand that in many cases, synchronous teaching in a remote learning environment may not be possible. When students are not able to attend synchronous settings, multiple options are available. We include the following ideas for teachers facing additional obstacles:

- Record your Zoom meeting, allowing students to experience the class setting and the discussions that took place.
- Create a separate recording to post to the class (for example, through Screencastify or Screencastomatic). This recording can often take the place of your normal “instructional” blocks.
- Provide “office hours” several times in a week, so that students can attend these outside of their normal class time and engage with you. These office hours should likely be at a different time of day than your normal class meeting, to allow for students who may struggle to make the class meeting.
- Provide detailed instructions and scaffolds on your Google Docs and forms that you have students fill out.
- Any class discussion or breakout room can be replaced by a class message board. However, specific expectations for participation should be laid out. It may be beneficial to model proper message board posting expectations for the class.

Is There Anything New about the 2020 Protests?

C3 Framework Indicators	D2.Civ.2.9-12. Analyze the role of citizens in the U.S. political system, with attention to various theories of democracy, changes in Americans' participation over time, and alternative models from other countries, past and present.
Staging the Question	Examine images of a local (or nearby) protest from 2020 and generate a list of things you know about the protests and questions you would like answered.

Supporting Question 1
Guided Practice
UNDERSTAND
What are similarities and differences between historic and modern marches that aimed to restrict the rights of citizens?
Formative Performance Task
Create a Venn diagram comparing the similarities and differences between historic and modern marches that aimed to restrict the rights of citizens.
Featured Sources
<p>Source A: 1925 KKK March in Washington, D.C., Image Set theatlantic.com/politics/archive/2016/12/second-klan/509468/ loc.gov/pictures/resource/npsc.27203/ loc.gov/pictures/resource/npsc.27477/ npr.org/sections/npr-history-dept/2015/03/19/390711598/when-the-ku-klux-klan-was-mainstream</p> <p>Source B: Unite the Right Rally in Charlottesville, Virginia, 2017 Image Set nytimes.com/2017/08/11/us/white-nationalists-rally-charlottesville-virginia.html time.com/charlottesville-white-nationalist-rally-clashes/ vox.com/identities/2017/8/12/16138244/charlottesville-protests-photos wamu.org/story/18/08/08/heres-need-know-weekends-unite-right-2-rally/</p>

Supporting Question 2
Independent Practice
UNDERSTAND
What are similarities and differences between historic and modern protests demanding civil rights?
Formative Performance Task
Create a Venn diagram comparing the similarities and differences between historic and modern protests demanding civil rights.
Featured Sources
<p>Source A: Black Lives Matter marches in 2020 <i>New York Times</i> collection of images nytimes.com/article/pictures-george-floyd-protests-photos.html.</p> <p>Source B: Silent Parade, New York 1917 Image Bank guides.loc.gov/chronicling-america-silent-protest-parade loc.gov/resource/ds.00894/ blackbird.vcu.edu/v16n2/gallery/1917/silent-page.shtml</p> <p>Source C: Selma Image Set loc.gov/resource/ppmsca.08102/ encyclopediaofalabama.org/article/m-2340 encyclopediaofalabama.org/article/m-2541</p> <p>Source D: Million Man March, Washington, D.C., 1995 Image Set loc.gov/resource/ppmsca.38892/siris-sihistory.si.edu/ipac20/ipac.jsp?profile=all&source=~!sichronology&uri=full=3100001~!14628~!0#focus;gannett-cdn.com/-mm-/14298b3e1c6078cfde2d55ccaa7d375ee54e2c93/c=0-34-768-468/local/-/media/2015/10/09/USATODAY/USATODAY/635799959721865656-mmm8.JPG?width=768&height=434&format=pjpg&auto=webp</p> <p>Source E: Ferguson, MO, Protests, 2014 Image Set documentingferguson.wustl.edu/omeka/items/show/11429 documentingferguson.wustl.edu/omeka/items/show/11687 documentingferguson.wustl.edu/omeka/items/show/11679 documentingferguson.wustl.edu/omeka/items/show/8945</p>

Summative Performance Task	ARGUMENT Is there anything new about the 2020 protests? Construct a claim supported with evidence that answers the compelling question.
	<p>ASSESS: Ask an adult if they have participated in a protest before and explain why/why not and whether it made a difference.</p> <p>ACT: Participate in a classroom discussion about why people we know have protested and whether it's an effective form of resistance.</p>

The full inquiry can be found online at www.c3teachers.org/inquiries/2020-protests/

In the following section, we detail the pomodoros or instructional blocks for this inquiry and how they might play out in synchronous online settings.

Instructional Annotation of an Online Inquiry

Writing an inquiry is different than teaching an inquiry. As creators of the IDM, we have stayed relatively quiet on instruction because teaching is a craft, and instruction will and should vary from classroom to classroom. The assumption is that teachers can take a blueprint and make it their own because they know their students' strengths, they have their preferred style of teaching, and they understand their teaching context better than a curriculum writer. However, due to the transition to online instruction, we have decided to provide a more prescriptive instructional sequence for those hoping to explore inquiry as part of remote learning.

In this section, we explore one approach to teaching an inquiry online using the Pomodoro method. We broke the inquiry, "Is there anything new about the 2020 protests?" into eight 25-minute instructional blocks or "pomodoros," providing specific instructional suggestions for teaching each block online.

Instructional Block 1: Building Curiosity

For staging the compelling question, the teacher may:

[5 minutes] Create and share a brief slideshow of images from local 2020 Black Lives Matter (BLM) protests. Using the online chat box, teachers could ask students to share reactions the images evoke.

[10 minutes] Place students in breakout rooms (3-4 in a group) and have them generate five things they know and five questions they have about the 2020 BLM protests. Ask that they keep a record of the groups' answers to share later.

[5 minutes] Bring students back for a whole group discussion to share what they discussed and their questions. Keep a list of the questions to review at the conclusion of the inquiry.

[5 minutes] Introduce the compelling question for the inquiry and share that students will be examining historic protests in U.S. history and comparing them to the 2020 BLM protests.

Instructional Block 2: Modeling

The first supporting question—"What are similarities and differences between historic and modern marches that aimed to restrict the rights of citizens?"—provides the teacher a chance to model the strategies students can use when analyzing sources. The teacher may:

[15 minutes] Model how to analyze and compare photographs using one image from Sources A and B in Supporting Question 1. In doing so, the teacher may describe the demographics of the marchers, the physical setting, the physical spacing of the figures in the photograph, and the actions of bystanders, and what the image represents to her. The teacher should model for students how to draw inferences from images and hypothesize about the overt displays of racism evident in the photographs.

[10 minutes] Introduce the Venn diagram and model how relevant information comparing the two events may be placed in the appropriate part of the Venn diagram.

Instructional Block 3: Partner Practice

Block 3 allows the inquiry to expand or contract according to the needs of students and includes options for differentiated instruction. Based on feedback from the previous block, the teacher may:

[25 minutes] Place students in breakout rooms (2-3 in a group) to analyze the remaining images from Sources A and B in Supporting Question 1. Prompt students to analyze the sources and add to the Venn diagrams begun in Block 2. For pairs of students needing additional scaffolding, share scaffolding questions to guide the analysis of the remaining images prior to the use of breakout rooms.

Instructional Block 4: Reinforcing Ideas

As the class moves to the second Supporting Question, the work of students shifts to the second formative performance task to compare the similarities between historic and modern protests demanding civil rights. The teacher may:

[5 minutes] Introduce the second Supporting Question in a synchronous Zoom session and introduce the five sources for the question. Specifically, it is important to discuss how the sources include images of civil rights protests and are thus different from those in Supporting Question 1.

[15 minutes] Reintroduce the Venn Diagram to the class and model image analysis again with one image from Source A on the Black Lives Matter (BLM) protests. Ask students to draw inferences from the other images in Source A on the BLM protests and hypothesize the contemporary impact of the marches and their impact. Use the chat fea-

ture to ask students to volunteer details about the image they think would fit into the Venn Diagram.

[5 minutes] Finish up this block by briefly previewing the images in Sources B-E of other historical civil rights protests that students are analyzing in the next instructional block.

Instructional Block 5: Independent Practice

This instructional block allows students to work independently to complete their Venn Diagrams comparing one historical civil rights event to the BLM protests. The teacher may:

[5 minutes] Assign each student (or small groups) photo sets from Sources B, C, D, or E of other civil rights protests (Silent Parade, Selma, Million Man, or Ferguson).

[10 minutes] Support students as they analyze the photos and make inferences about the differences and similarities between historic and modern protests demanding civil rights.

[10 minutes] Reintroduce the Venn Diagram for students to complete and remind them of the process for including information on the Venn Diagram comparing the current protests to the historic example they were assigned.

Instructional Block 6: Group Deliberation

During remote learning it is critical not to lose sight of the fact that inquiry can still employ a collaborative process. In order to create these opportunities for students to share, discuss, and critique their thinking, the teacher may:

[5 minutes] Set expectations for collaborative work and group norms.

[15 minutes] Support students as they share their Venn Diagrams with other groups. In order to encourage discussion, require the groups to comment and rank the observations and decide on their top 3-5 observations from the Venn Diagrams.

[5 minutes] Bring the class back to the main room and discuss what went well and what struggles they had in their discussion groups revisiting the collaborative Venn Diagrams.

Instructional Block 7: Summative Assessment

At this stage of the inquiry, the class should be ready for the Summative Performance Task, which is to write a claim with evidence answering the Compelling Question, "Is

there anything new about the 2020 protests?" This early in the school year, students are likely to be either unfamiliar or rusty with their ability to effectively write a claim, so significant support may be required. The teacher may:

[5 minutes] Before assigning this task, the teacher may want to hold a brief Zoom meeting highlighting the thinking the class demonstrated through the creation of the collaborative Venn Diagrams. The Collaborative Venn Diagrams should be made available to the entire class.

[20 minutes] An approach for supporting students in claim making could involve:

- What are the 2–3 most significant similarities between historic and contemporary protests?
- What are the 2–3 most significant differences between historic and contemporary protests?
- Based on your observations, do you think there is anything new about the 2020 protests? (Yes or no)
- Using either your most significant similarities or your most significant differences as evidence, write a claim answering the question, "Is there anything different about the 2020 protests?"

Instructional Block 8: Application

The final block of the Inquiry provides students the opportunity to make a personal connection through a Taking Informed Action task. Students are encouraged to find someone who participated in a protest, and to have a discussion about their experiences. Alternatively, students can research a first-hand account of someone who took part in a protest to add to the discussion. To support students, the teacher may:

[5 minutes] Share an experience or a story of someone who has engaged in a protest as an example and return to the list of the questions gathered in Block 1 to further engage students.

[10 minutes] Support students as they share their experiences in small breakout rooms. The teacher may visit each breakout room to listen in and to ask guiding questions to move the discussion forward.

[10 minutes] Close out the inquiry by asking students to highlight big ideas that they learned.

Conclusion

For the majority of educators, the shift from in-person to online teaching was one that was thrust upon us with very little warning, preparation, or training. Most of us were and still are, learning to do this as we go. For some, it might seem easier to fall back on more traditional methods of instruction that may feel like a better fit for online learning. With so many arguments being made debating the efficacy of online instruction, it is hard not to question whether the work we have been doing is making a difference for our students.

Whether you believe in the value of online learning or not, teachers have the choice to look at this time as a bump in the road for our profession and our students, or as an opportunity to evolve as educators. Creating an inquiry-based classroom is not easy and is often the result of a teacher's significant pedagogical shift in instructional practice. Creating an inquiry-based classroom in an online setting presents an entirely different set of challenges. While there will be many obstacles to good teaching this year, our hope is that we do not give up on inquiry. 🌐

Notes

1. George Orwell, *Why I Write* (London, Gangrel, 1946).
2. Dean Kissick, "This Time-management Trick Changed My Whole Relationship with Time," *New York Times* (June 23, 2020).
3. Illinois Department of Education, *Starting the 2020–2021 School Year, Part 3 Transitioning Joint Guidance* (June 23, 2020), www.isbe.net/Documents/Part-3-Transition-Planning-Phase-4.pdf
4. Kathy Swan, S.G. Grant, and John Lee, *Blueprinting an Inquiry Based Curriculum: Planning with the Inquiry Design Model* (Silver Spring, Md.: National Council for the Social Studies and C3Teachers, 2019).
5. C3 Teachers, "Is There Anything New About the 2020 Protests?" inquiry, www.c3teachers.org/inquiries/2020-protests/.

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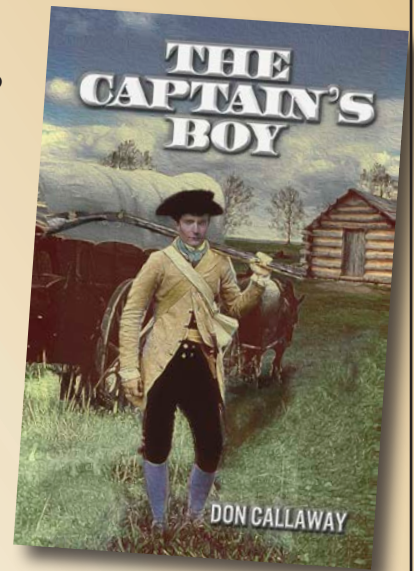
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