



“Librarians can support individuals or groups at the point of need to find the resources that match the information demand.”

Designing Inquiry for Remote Learning

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“**W**hen we went into remote teaching due to COVID-19, I was so glad that I had already completed our Guided Inquiry unit, because *our kids knew how to learn on their own!*”

—MIDDLE SCHOOL English teacher,
Shawnee, Oklahoma (personal communication, June 17, 2020)

This quote from a teacher is a powerful testament to what inquiry-based learning can accomplish. When those who teach must navigate new digital environments and are thrown into remote learning, inquiry can be left behind. Why make time for inquiry? Inquiry not only accomplishes the critical information-literacy teach-

ing of the embedded librarian (Lance & Maniotes, 2020), but, bottom line, it also offers an opportunity for all students to become self-directed, independent learners and curious inquirers, as reflected in this teacher’s declaration.

Not just any inquiry can accomplish this. As known from Kuhlthau’s (2004) foundational research, the inquiry process has to be carefully designed and guided. A poorly designed inquiry project can lead to compliance behavior, including cut-and-paste projects with little learning derived from the work. A well-designed unit can achieve deeper learning and develop important research skills for lifelong learning. Armed with the knowledge of the information search process, teachers and librarians can carefully design inquiry that connects to the learner’s experience for a successful learning plan. The Guided Inquiry Design (Gid) framework (see Figure 1) applies Kuhlthau’s research and provides a clear path for an instructional design for inquiry in any context.

USING THE GID FRAMEWORK FOR REMOTE LEARNING

Even though it is a complex learning process, inquiry can be guided in

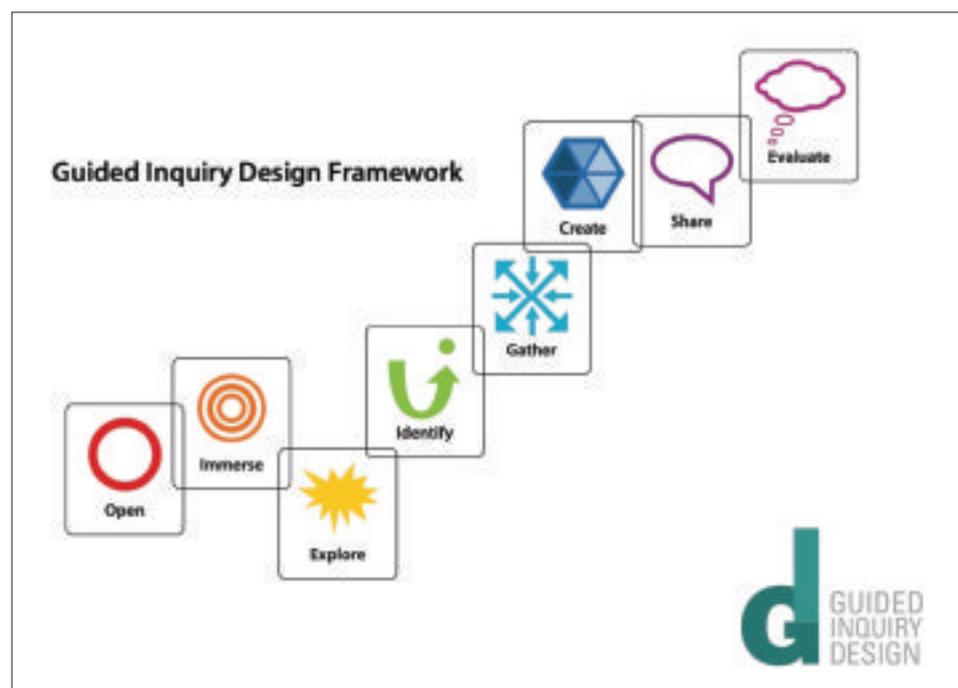


Figure 1. Gid process printed with permission from guidedinquirydesign.com

the remote context by strategic use of digital tools. GIId offers the structure to propel students through the inquiry process. Strategies for learning in GIId support deep learning as students explore and expand upon their personal investigations.

Educators are wondering how such a process can be accomplished online. This article highlights the core components and provides an outline of how a GIId unit of inquiry can look in the remote setting. Included are ways to hold students accountable for the work of each phase and to keep the momentum and propel the process, which is perhaps even more urgent for the remote classroom.

In the design phases of planning the unit, the teachers and librarian begin by moving from a topic of study like energy to a concept like transfer. Shifting to a concept-based approach lifts the unit of study from teaching content to exploring a larger issue (Donham, 2010; Erickson, Lanning, & French, 2017). Beginning with a concept sets an open tone for the unit and allows for wonder and curiosity from the start. After the concept and learning goals are determined, the team moves into planning for each phase.

OPEN

Start with an engaging opening that entices students to wonder. Use this opportunity to help students see the topic in a new way. In a remote context this is easily done by sharing

- A quick video clip that inspires wonder while introducing an idea/concept
- A segment from a historical fiction piece or memoir that highlights a concept read aloud

- An image or object that features an important concept
- A science experiment where students draw conclusions and discuss the implications

Pair the experience with (1) time to draw conclusions, discuss, and think together as a whole class about the Open phase and (2) time to reflect individually in an inquiry journal.

Journal reflections completed in the online context (such as using Google Docs) can be shared with both the librarian and teacher, so all can read, comment, and give students encouragement as they share their emerging curiosities and connections. Journal entries can also be used as an attendance grade while at the same time working to cognitively propel the inquiry for students.

IMMERSE

After students have built some intrigue and interest, the next phase is designed to immerse learners into the content. In this phase, be sure that students learn important background knowledge and key vocabulary about the content (Maniotes & Cellucci, 2017).

To ask an informed question requires background knowledge on the topic. The Immerse phase equips learners with just enough information and knowledge to ask better questions. In this way, carefully curated readings, class discussions and debates, and image/map/art analysis or science demonstrations are designed to help students

learn important aspects of the content.

In the remote context, use a flipped model, where students asynchronously watch a video, complete a reading or activity, and then take the time together as a whole class to discuss the content.

The inquiry journal continues through this phase and provides students time to think, process, and talk about their developing interests and ideas. Offer a few simple journal prompts to allow students to examine and illuminate their budding interests, such as:

- What connections are you making?
- What are the key learnings?
- What questions do you have?

In the book *Guided Inquiry Design*, for the Immerse phase, Kuhlthau, Maniotes, and Caspari (2012) encourage field trips and rich experiences that are ideal for building background knowledge. In the remote context, virtual field trips take students to places otherwise out of reach due to location (Google Earth), time (Google Expeditions), or other constraints.

Many museums around the world (see “Lists of Virtual Field Trips”) are offering more digitized options of collections as well as actual field trips. For example, the Smithsonian Air and Space Museum has created a virtual storytime series called *Flights of Fancy Storytime Online* that brings their normal in-house museum storytime to video format on the web. Storytimes like these are wonderful for engaging elementary and early childhood students in content and connection.

Lists of Virtual Field Trips

<https://www.techlearning.com/news/best-virtual-field-trips>

<https://www.tripstodiscover.com/best-virtual-field-trips/>

There are even live storytellers such as New York City's Rachel Harrington, who shares her craft and tells inspiring and engaging stories from her apartment on Facebook live (<https://www.facebook.com/rachael.harrington.9>).

When events are canceled, there are creative creations of virtual visits, including the famous Albuquerque, New Mexico, balloon festival, where curators have offered an augmented reality experience of the event this year. It's honestly hard to keep up with all the virtual experiences that are now available.

Creating a curated set of the virtual opportunities is a great use of librarians' time and talents as collaborators in the design of units of inquiry. A short list of high-quality materials with clear connections to the curriculum and learning goals is invaluable to teachers working in the remote environment. When everyone is feeling overwhelmed with technology, some direction and focus are welcome. A concise list provides that sense of direction.

In the remote learning context, clear accountability measures are necessary for students engaging in these field trip experiences. During the unit, require students to write a reflection of what they saw—something that surprised them, interested them, or they learned. This way they are using the time to make connections to the content standards that have been laid out for the work. These reflections are accumulated in the inquiry journal, including entries through the Immerse phase that propel the inquiry process.

After the students have gotten a good grasp on some key background knowledge about the topic, they emerge from the Immerse phase with some budding interest in the topic.

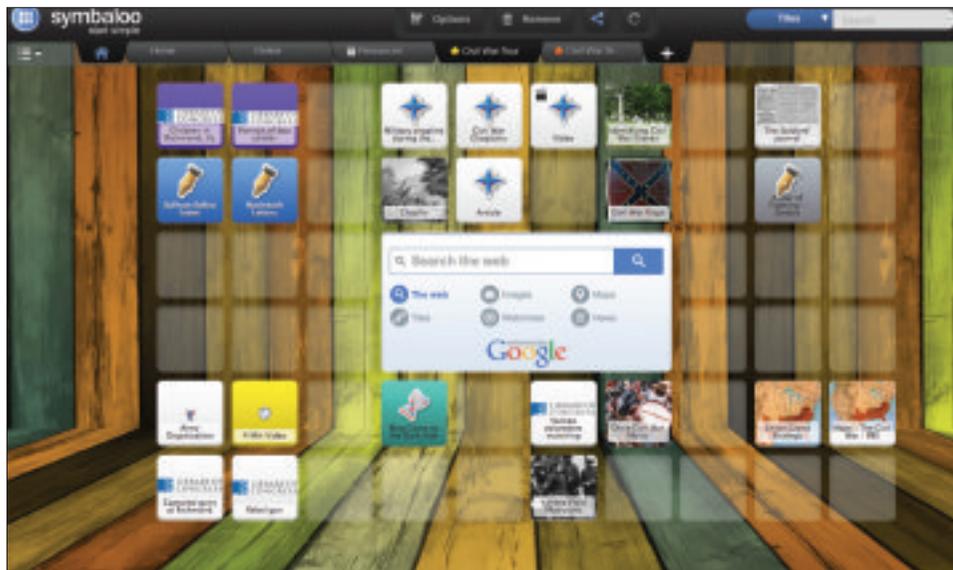


Figure 2. Curated set. The goal for any curated set for the Explore phase is to provide a variety of resources that drive students to potential and viable paths of research out of their own interests.

EXPLORE

Now students are ready to explore. While they are still learning the process, it is advisable to use a curated set of materials. Once students understand the process of inquiry, the Explore phase may be opened up for students to search their interests more widely. In her research, Kuhlthau (2004) found that students can drown in information overload at this step.

A carefully curated set of digital resources or search engines in Wakelet, Google Hyperdocs, or Symbaloo drives students directly to high-quality resources and useful information to explore. Search engines and tools like Gale and digital resources like Britannica online are organized in ways that support independent student exploration. Once given the curated set, students need time to explore independently. Depending on the schedule, the librarian is often a part of the process and embedded into the learning in order to assist or talk to students during these Explore sessions, as the students' think partner.

Here is an example of a curated set of resources for the Explore phase from a middle school for a unit on the American Civil War (see Figure 2). This set was created using the Symbaloo application and is organized by topic, which helps students zero in on their interests. This set includes digitized journals and letters from soldiers, as well as images from the Library of Congress. There are resources about the symbols of the time in flags and on graves, how the army was organized, and military terms from the time—a diagram, video, and images provide a variety of resources on that one subtopic. The set also includes a blog about the shocking medical conditions during the war, as well as some army marching music from both sides and important maps of battles.

This diverse set was created to follow a Civil War tour at the Elmwood Cemetery, a historic site in North Brunswick, New Jersey. It was created to represent a wide variety of topics and resources, so all students might find an interesting avenue for their own research and learning on the people and times.

Scaffold the exploration with an inquiry log, so all students track their path through the sources and solidify their interest and ideas into a focus at the end of the Explore phase. Making comments on the log about what was interesting to them and whether the resource might be useful is work that enhances awareness of the process and moves the thinking forward (see Figure 3).

The inquiry log is also a great way for the team (librarian and teachers) to monitor what students are doing and watch which direction they may be going. Making note of student interests in this phase will help with predictions and planning for the upcoming Gather phase, allowing teachers and librarians to stay one step ahead of students in the process. The log entries can also be used as an attendance assignment or

Making Choices & Tracking the Journey

INQUIRY LOG

Use this inquiry log from the Explore stage through the Create stage.

		Explore	Gather
Track your choices through the Explore:		As you explore, check the box if you include the source for your inquiry.	As you gather, check the box if you will use the source for your inquiry.
Track the reading progress over time:		As you explore, indicate when you added the source you added to the log.	As you gather, indicate when you read the source you read.
Source Citation	Date	Notes: What makes it useful?	Read?
1			
2			
3			

Figure 3. Inquiry log. *Source:* Kuhlthau, Maniotes, & Caspari, 2012, p. 84

for a daily grade (Maniotes, 2019).

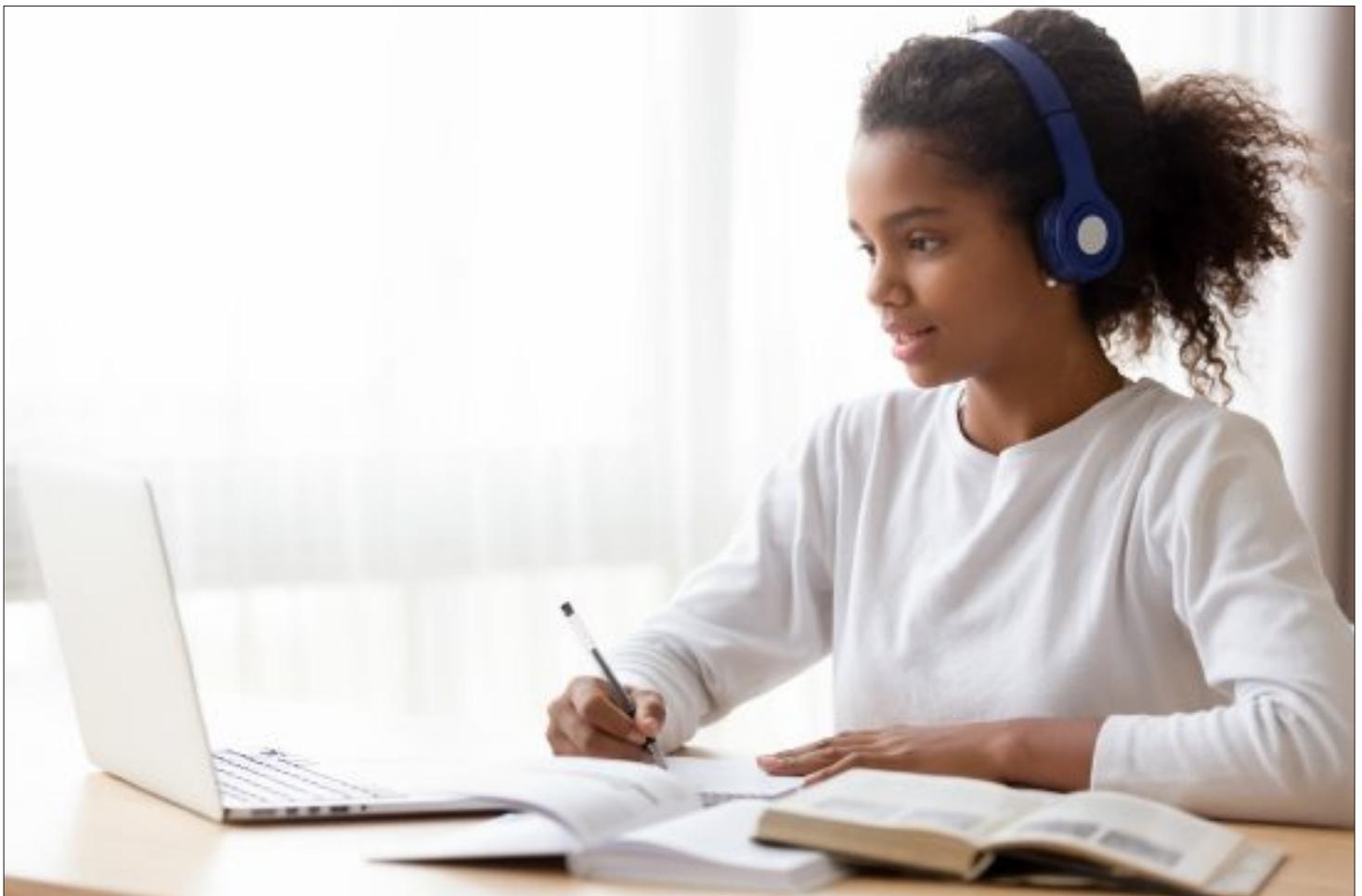
IDENTIFY

After students have time to explore, they begin to see pathways for their long-term pursuits. They typically have a few ideas for different directions and need a think partner conversation to help them identify and articulate that focus. This is the Identify phase.

A simple graphic organizer and some time to think back on all they've learned and explored assist productive reflections to determine a focus for their inquiry. Independent work, followed by a conference, provides students with the guidance needed to find the right focus. A meeting with the teacher or librarian to talk about their completed graphic organizer can be accomplished by video conference, chat spaces, phone, or the Google document itself.

GATHER

Once students have a focus, they can go back to the curated set, as well as reach out wider to seek other resources for the Gather phase. Students set their own goal for each day at the beginning of class, grounded in their focus from



the Identify phase. They share their work, so the teacher and librarian view their posts during Gather as a check-point on progress.

In the remote context, students can reach out to the librarian as needed during class time. Librarians can support individuals or groups at the point of need to find the resources that match the information demand. The embedded librarian is able to meet with small groups in the Gather phase for lessons on searching, evaluating or note taking, and determining importance from texts.

CREATE, SHARE, AND EVALUATE

Once they have gathered information from multiple sources, examined multiple perspectives, or saturated the resources, students move into the Create phase. In guided inquiry, students create meaning from the information they have found. Graphic organizers are used to help them pull their ideas together in new and cohesive ways to share what they have learned.

There are many ways to create and share ideas in the remote context. Videos, art with captions, virtual galleries, and expositions of learning are some of the ways to share virtually. In the Share phase, students share and learn from one another. Flipgrid, Padlet, or Google Docs can be used to capture student takeaways from the presented material.

After all the learning is complete, time is set aside for reflection and growth. In the Evaluate phase, students take a step back from the process and reflect not only on what they learned but also on how they learned and what they might do differently next time. These reflections can be captured in a Google form or as a capstone entry to their inquiry journals.

To learn more about the GIId process, the GIId Academy is now offering online courses on inquiry in the remote context and project-based learning, as well as other courses to help school librarians and colleagues accomplish goals for embedded librarianship, inquiry-based learning, and increasing students' capacity for independent learning and living in the information age.

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ADDITIONAL RESOURCES

Elmwood Cemetery Walking Tour (<https://theelmwoodcemetery.com/walking-tours/>). Many historic sites, including cemeteries, offer tours. This cemetery created a walking tour to highlight Civil War heroes to learn about local history. Explore your local sites to see what offerings can expand the learning experiences for your students. Local connections make learning relevant to students' lives and build a sense of community.

Guided Inquiry Design Courses (<https://guidedinquirydesign.com>). Guided Inquiry Design has created an online academy of asynchronous courses to support the implementation of a research-based inquiry process, including the Guided Inquiry Design Institute. Visit our website to see all the offerings.

Symbaloo (<https://www.symbaloo.com/home/mix/13eOhEIEf4>). This is a link to view the Symbaloo curated set provided in this article.

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