



The Inquiry Design Model

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Introduction

The Inquiry Design Model (IDM)[™] is a distinctive approach to creating curriculum and instructional materials that honors teachers' knowledge and expertise, avoids over-prescription, and focuses on the central elements of the instructional design process as envisioned in the Inquiry Arc of the *College, Career, and Civic Life (C3) Framework for State Social Studies Standards* (National Council for the Social Studies, 2013).

As an instructional framework, IDM builds out from the C3 Inquiry Arc through: a) compelling and supporting *questions* that frame and give structure to the inquiry (Dimension 1); b) summative, formative, and additional performance *tasks* that provide the opportunities for communicating conclusions (Dimension 4); and c) disciplinary *sources* that allow students to explore the compelling question, build content expertise, and develop the disciplinary skills to successfully support and defend their ideas (Dimensions 2 & 3). Unique to the IDM is the *blueprint*, a one-page representation of the questions, tasks, and sources that define a curricular inquiry.

IDM is rooted in 10 conceptual principles, based in research and practice that align with the ambitions of the *C3 Framework* and speak to the conceptual and pedagogical coherence of the Inquiry Design Model. These ten principles are summarized below.

Inquiry begins with a question

Social studies is many things, but at its heart is the drive to understand how the social world operates; in short, why do people do the things they do? That seemingly simple question and the many others that ripple out from it open a world of opportunity for students and their teachers to explore the many ways that people have lived their lives both past and present.

No social issue, however, can be addressed through a single disciplinary lens because no social problem is only economic or political, historical or geographic. The challenges we face are multi-faceted and so demand that we use the power of history and the social science disciplines individually and in combination to address them. The questions that students and their teachers examine do not lend themselves to simplistic conclusions. The conclusions they reach will be better informed when based on thoughtful and multidisciplinary approaches. As John Dewey (1916) notes, “only by wrestling with the conditions of the problem at first hand, seeking and finding his own way out” (p. 188) do we learn how to think and reason our way through social problems.

The Inquiry Design Model (IDM) approach frames inquiries around a compelling question. Compelling questions address key issues and topics found in and across the academic disciplines and reflect the ideas and experiences that students bring to class. Compelling questions represent a rigorous look at the content of social studies; they also represent conditions that are relevant to students’ lives. For example, “who won the Cold War?” could be considered as a compelling question because it reflects a genuine intellectual dispute, but it does so in a way likely to spark student interest in that it plays off the idea that winners and losers in wars should be easy to define (Grant, 2013).

The IDM features a compelling question and the elements necessary to support students as they address that question in a thoughtful and informed fashion. Those elements, briefly noted here and described more fully below, include staging the question activities (builds student interest), supporting questions (develops the key content), formative performance tasks (demonstrates emerging understandings), featured sources (provides opportunities to generate curiosity, build knowledge, and construct arguments), summative performance tasks (demonstrates evidence-based arguments), extension activities (provides options to the summative task), and taking informed action experiences (offers opportunities for thoughtful civic engagement). Each of these elements is represented on the first page, or blueprint, of the inquiry.

Crafting compelling questions and the elements needed to scaffold the rest of an inquiry can be more challenging than it appears. Doing so, however, puts students in the middle of legitimate and authentic inquiries rather than marching them through a series of “just the facts” curriculum units. We have lots of evidence that the latter approach does not work (Goodlad, 1984; Grant, 2003; McNeil, 1988; Yeager & Davis, 1996). IDM is a curricular and instructional approach designed to honor, support, and extend students’ best efforts.

Inquiry topics and outcomes are grounded in standards

Writing curriculum based on national or state standards is challenging. Standards documents of any stripe are better at establishing a direction than they are at mapping out a particular journey. Directions are important, however, and so building out inquiries from a set of relevant standards just makes sense. The Inquiry Design

Model (IDM), then, provides space on the blueprint for teachers to indicate the standards relevant to the inquiry.

For most inquiries, teachers will want to work from two sets of standards--the *C3 Framework* and the social studies standards unique to their particular states. The *C3 Framework* in general and the four Dimensions of the Inquiry Arc in particular offer a global view of how an inquiry-based approach to teaching social studies can unfold. The social studies standards particular to each state typically offer the kind of content sequence and specification necessary for teachers to plan appropriate inquiries. For example, two states may require a deep examination of the U.S. Constitution, but one may expect that teachers do so in grade 8, while another does so in grade 12. Although there may be some similarities between 8th and 12th grade inquiries on the Constitution, some important instructional and source distinctions are likely to surface.

Standards-based inquiries, then, align all aspects of teaching and learning to the high-level goals of the *C3 Framework* and to the content specifics of state-level standards. That said, IDM inquiries typically are not intended to be comprehensive in scope, nor are they intended to be a series of discrete lesson plans. Instead, they are designed to be pedagogically rich approaches to making the content, instruction, and assessment decisions that ensure teachers' lessons resonate with all students. Inquiries must also attend to the demanding time pressures that many teachers face. As such they are typically designed to fit within 5-7 instructional days.

Disciplinary knowledge and skills are integrated within an investigation

Long debated in social studies circles, the question of whether to focus on content and conceptual knowledge or skills has been firmly answered in the *C3 Framework*: Good teaching focuses on both.

Dimension 2 of the *C3 Framework* —Applying Disciplinary Concepts and Tools—outlines the kind of disciplinary knowledge and skills students need to answer compelling questions. But, skills and knowledge in isolation have little value. It is the application of skills in the pursuit of knowing and understanding the past and the present that defines the substance of social studies (Willingham, 2003).

Indications of the interaction between disciplinary knowledge and skills run throughout an inquiry but may be most obvious in the IDM formative, summative, and additional tasks. In those exercises, students demonstrate the intersection of their content understandings and their ability to apply one or more social studies skill as they engage with the specific tasks. Those tasks build in intellectual *and* skill sophistication as the formative performance tasks unfold. Students may be defining terms, identifying examples, and brainstorming ideas in the early part of an inquiry; later, they may be comparing similar and different instances of a phenomena, analyzing text passages, and writing claims with evidence. The ability to synthesize the content developed throughout an inquiry and to express that synthesis in an evidence-based argument is key to successful completion of the summative performance task. Students need content in order to make an argument; they also needs skills in order to craft and support that argument. Disciplinary knowledge and skills can be discussed independent of one another. Making and supporting arguments, however, demands that they interact.

Students are active learners within an inquiry

Central to the IDM approach is psychologist Jerome Bruner’s (1960) observation about the relationship between students and ideas: “We begin with the hypothesis that any subject can be taught effectively in some intellectually honest form to any child at any stage of development” (p. 33). The accumulating research evidence demonstrates the finding that students actively construct knowledge rather than passively receive it (Bruner, 1990; Piaget, 1962; Grant, 2003; Newmann, Marks, & Gamoran, 1996; Saye et al., 2013; Wineburg & Wilson, 1991).

Taking Bruner’s quote seriously means that teachers need to find ways to engage all students in the topics under study. The IDM posits that students of all abilities can engage with the questions, tasks, and sources that comprise the inquiries. Although it is a challenge to write an inquiry without a specific group of students in mind, inquiries need to be sensitive to the wide range of abilities that students bring to class. That sensitivity may be expressed in any number of ways—language-focused scaffolds, vocabulary instruction, differentiated instructional activities, and modified and alternative sources.

Central to a rich social studies experience is the capacity for developing questions that can frame and advance an inquiry. Those questions come in two forms: compelling and supporting questions. The authors of the *C3 Framework* argue that students can and should play in a role in constructing the questions that guide the inquiries in which they engage. That said, constructing questions is a challenging intellectual pursuit and students, particularly before grade 6, will need their teachers’ guidance in doing so.

Creating compelling and supporting questions is only one way, however, for students’ questions to play a role in inquiries. Although they may not be creating all of their own inquiry questions (as they might for a National History Day competition, for example), student questions can surface in several ways. For example, students might suggest a modification of a teacher’s compelling question, propose additional and/or alternative supporting questions, or inspire their teachers to develop compelling questions for new inquiries in subsequent years.

The purpose of assessment is for learning

One of the biggest challenges teachers face is understanding what students know. Assessments come in a variety of forms, but none is perfect, and each has constraints as a vehicle for judging students’ knowledge and skills.

Knowing that it is helpful to use assessments for instructional purposes as well as evaluation, the IDM features both formative, summative, and additional performance tasks. The formative performance tasks reflect an inquiry’s supporting questions and offer students opportunities to build their content knowledge and their social studies skills. Formative performance tasks also offer teachers snapshots of their students’ progress so that they can modify their instructional plans if necessary. The summative performance task is tied to an inquiry’s compelling question and asks students to construct an evidence-based argument in response to it. Additional performance tasks, including extensions and taking informed action exercises, offer further opportunities for thoughtful exploration, creative expression, and civic participation.

The performance tasks threaded throughout the IDM provide teachers with multiple possibilities to evaluate

what students know and are able to do. These tasks can be informal or formal, but each is constructed to provide students with opportunities to learn by doing and for teachers to have a steady loop of data to inform their instructional decision-making.

As a result, the IDM encourages the use of a variety of assessment approaches for formative tasks—writing, debates, T-charts, structured discussions. The summative performance task may also take a number of forms—a five-paragraph essay, a chart, or a poster. The form in which an argument is expressed is less important than the opportunity it provides for teachers to see how their students express and support their conclusions.

The summative performance task acts as a kind of convergent assessment. A convergent assessment is one where the initial, formative tasks have been scaffolded in such a way that students’ knowledge and skills converge in the construction of evidence-based arguments that respond to a compelling question.

Convergent assessments are useful as direct measures of students’ capacity to engage with an inquiry. Also useful, however, are divergent assessments as they provide opportunities for teachers to stretch their students’ understandings. Each summative performance task, then, is accompanied by an extension task. These tasks can take many forms—a policy-writing activity, a documentary, a perspective-taking exercise. The idea is to present students with additional and alternative ways to engage with the ideas that are central to an inquiry.

Extensions, along with the taking informed action activities described below, offer modularity to inquiry assessments. Although inquiries may end formally when students’ construct and support their arguments, teachers can vary the ways that students present those arguments by substituting the options represented in the extensions or the taking informed action activities.

Disciplinary sources are the building blocks of inquiry

The Internet offers a boon for social studies teachers through the bountiful primary and secondary sources available. Access to original writings, maps, political cartoons, artwork, and the like present terrific opportunities for students to deeply explore the content behind a compelling question. Not all sources are cut from the same cloth, however. In history, for instance, we may distinguish between primary and secondary sources. Some sources contain words and other data. Sources can be spatial, have physical properties, and can even be embodied in people.

Not all sources are equally valuable either. Many are challenging to read and interpret, and some students will need the expert guidance of their teachers as they navigate the sources represented in the IDM inquiries. First, teachers need to help their students realize that every source reflects a perspective: Implicitly and/or explicitly, all sources reflect the biases of their producers. Historian E. H. Carr (1961) recognized this condition when he advised, “study the historian before you study the facts” (p. 26). Given Carr’s caution, the second way that teachers can assist their students is to use a range of sources as they develop their instructional plans. Doing so helps students realize the complexity of the social world and the usefulness of bringing multiple perspectives to bear. Finally, teachers need to think about the forms in which they present sources to their students. Although there is considerable value in reading sources in their original length and language, teachers should consider the advantages of annotating, excerpting, and/or modifying sources, especially long

and conceptually dense texts. Sources ought to be an opportunity for students to engage with content, not a barrier to that content.

Because there are far more sources on every topic than could be listed in the inquiries and because no one source can address every aspect and perspective on that topic, the IDM takes the approach that some sources should be featured. These featured selections illustrate the kinds of sources students might use to build their knowledge, skills, and arguments. To that end, sources can be used toward three distinct, but mutually reinforcing purposes: to generate students' curiosity and interest in the topic, to build students' content knowledge, and to help students construct and support their arguments related to a compelling question. Recognizing the rich array of sources available, IDM inquiries typically offer additional source suggestions for teachers to consider.

Students need opportunities to practice engaged citizenship

Social studies has long been criticized for its limited attention to civic engagement (Campbell, Levinson, & Hess, 2012; Levine, 2007; Levinson, 2014). Learning how a bill becomes a law and how individual and group rights have been addressed by examining Supreme Court cases are useful activities. But if students' ideas and actions are confined to the classroom, then they miss important opportunities to see how those ideas and actions play out in other public venues. One of the central dimensions of the *C3 Framework*, then, is the idea of taking informed action.

Informed action can take numerous forms (e.g., discussions, debates, presentations) and can occur in a variety of contexts both inside and outside the classroom. Key to any action, however, is the idea that it is informed. The Inquiry Design Model, therefore, stages the taking informed action tasks such that students build their knowledge and understanding of an issue before engaging in any social action. In the *understand* stage, students demonstrate that they can think about the issues behind the inquiry in a new setting or context. The *assess* stage asks students to consider alternative perspectives, scenarios, or options as they begin to define a possible set of actions. And the *act* stage is where students decide if and how they will put into effect the results of their planning.

A teacher's worst enemies are the clock and the calendar for, together, they conspire to limit time for teaching and learning. In most inquiries, then, the taking informed action tasks may be offered as additional instructional opportunities to be implemented after students have completed the summative performance task. In some inquiries, however, the taking informed action sequence has been embedded throughout the supporting questions and the attendant formative tasks and sources. Doing so, allows teachers the option of using the typical argument construction task or the action task as the final assessment.

Social studies shares in the responsibility for literacy

We intuitively know that inquiry in social studies involves the use of sophisticated literacy skills; after all, when we ask and answer questions, we typically read and write and speak and listen. The Common Core English Language Arts standards provide a foundation for inquiry in social studies through its emphasis on reading rich informational texts, writing evidence-based arguments, and speaking and listening in public venues. These foundational literacy skills support the pedagogical directions advocated in the *C3 Framework* (Lee & Swan, 2013). The task-based structure of IDM requires that students read and write regularly.

Building on foundational literacy skills, the Inquiry Design Model enables students to develop unique inquiry and disciplinary literacies (Lee & Swan, 2013). Drawing on indicators in Dimensions 1, 3, and 4 of the *C3 Framework*, the task-driven structure of IDM supports 13 specific C3 inquiry literacies.

C3 Inquiry Literacies Arranged by C3 Framework Dimension

Dimension 1	Dimension 3	Dimension 4	
Questioning	Selecting sources	Constructing arguments and explanations	Analyzing social problems
	Gathering information from sources	Adapting arguments and explanations	Assessing options for action
	Evaluating sources	Presenting arguments and explanations	Taking informed action
	Making claims	Critiquing arguments and explanations	
	Using evidence		

In addition to foundational and inquiry literacies, IDM encourages disciplinary literacies. These disciplinary literacies are the specific literacy skills students need to understand, create, and communicate academic knowledge (Shanahan & Shanahan, 2008). As students analyze sources when completing formative, summative, and additional tasks in an inquiry, they use the ways of thinking unique to social studies disciplines (e.g., civics, economic, geography, and history). The *C3 Framework* describes these disciplinary literacies in Dimension 2 as including skills such as using deliberative processes (civics), making economic decisions, reasoning spatially (geography), and determining the purpose of a source (history).

Inquiries are not all inclusive

Astute readers likely have noticed the term “inquiry” used in place of “unit.” The substitution is purposeful in both general and specific ways.

As noted above, the *C3 Framework* begins with the premise that inquiry lies at the heart of social studies and that the crafting of questions and the deliberate and thoughtful construction of responses to those questions can inspire deeper and richer teaching and learning. The language of the *C3 Framework* makes this point explicit as Dimension 1 is labeled “Developing Questions and Planning Inquiries.”

The IDM takes inquiry as its general starting point. Using “inquiry” as the descriptor for the curriculum topics portrayed, however, reflects a specific, conscious decision not to produce fully-developed and comprehensive curriculum units or modules. Teachers should find considerable guidance within each inquiry blueprint around the key components of instructional design—questions, tasks, and sources. What they will not find is a complete set of individual lesson plans. Experience suggests that teachers teach best the material that they mold around their particular students’ needs and the contexts in which they teach. Rather than scripts reflecting generic teaching and learning situations, the IDM encourages teachers to draw on their own wealth of teaching experience to add and/or modify activities, lessons, sources, and tasks to existing inquiries. Doing so allows teachers to transform the inquiries into their own, individual pedagogical plans. Published inquiries, then, offer teachers a curricular direction rather than an instructional transcript.

Inquiries are best mediated by skilled teachers

As foreshadowed above, the Inquiry Design Model highlights the importance of teachers’ expertise and experience as critical to the enactment of rich classroom instruction. Children can and do learn important lessons on their own. With the guidance of expert adults, however, learning becomes deeper, richer, and more engaging.

Finding the sweet spot between too much direction and too little in a set of curriculum materials is no easy task. The IDM strikes a balance—posting the key components any instructional plan is likely to have, but leaving many important instructional decisions in the hands of the teachers who will tailor published inquiries to their classroom situations. Research studies consistently support the powerful impact teachers make on their students’ achievement (Smith & Niemi, 2001). The best pedagogical resources, then, support and enable rather than undercut teachers’ best instructional ambitions (Grant, 2003; Lee, Doolittle, & Hicks, 2006; Shulman, 1987; Swan & Hofer, 2013; Yeager & Davis, 1996).

The Inquiry Design Model is co-authored by S.G. Grant, John Lee, and Kathy Swan who worked as leaders and writers in the C3 Framework project. Their collaborative work on IDM is an extension of this effort, which aims to help teachers, districts, and state departments of education implement the C3 Framework successfully in classrooms, where students experience the benefits of an inquiry-oriented social studies education.

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