This document describes the practice of eliciting and interpreting individual students’ thinking (p1-4) and outlines a set of curriculum resources that teacher educators can use to introduce the practice to teacher candidates (p5-9).

Description of the Practice

In inquiry-oriented classrooms, the process of asking questions, evaluating evidence, critiquing arguments, and constructing knowledge is shared work. To be able to work together and develop ideas, therefore, students' thinking must be made visible so that the teacher can see where students are in their thinking and develop plans for extending students' thinking further. Making student thinking visible also enables other students to build on or challenge their peers' ideas and work together to construct meaning.

Eliciting and interpreting individual students’ thinking consists of teachers posing questions and tasks that provoke or allow students to share their thinking about specific academic content. As a result, teachers are able to assess a student’s understanding of the content, make instructional decisions, and surface ideas that will benefit other students. To do this effectively, a teacher draws out students’ thinking through carefully chosen questions and tasks and considers and checks alternative interpretations of students’ ideas and methods.¹

For a video of an example of eliciting and interpreting individual students’ thinking, visit the online curriculum [here](http://www.example.com). In the clip, a teacher elicits students’ thinking about a news article in the context of a middle school investigation of whether post-apartheid South Africa has lived up to its promises.

Advancing Justice

Teaching for social justice requires that teachers attend to their students’ growth both as intellectual beings and as citizens. By eliciting and interpreting individual students’ thinking, teachers provide student’s opportunities to have their thoughts and voices heard, respected, affirmed, challenged and refined. Eliciting and interpreting individual students’ thinking, if employed properly and responsibly, results in teachers learning valuable information about their students and being better prepared to provide quality instruction that is responsive to students and supportive of students’ sensemaking. Eliciting and interpreting individual students’ thinking also results in students becoming more knowledgeable and comfortable with using content-specific language and enables students to recognize the power of their voices to affect change in their communities and abroad.

Why Work on Eliciting and Interpreting Individual Students’ Thinking?

Many novice teachers have learned that the role of students in social studies is to memorize facts and learn a single story or set of information. As a result, they may tend to ask closed questions with right or wrong answers. While accurate, factual information certainly plays an important role in social studies inquiries, the practice of eliciting and interpreting individual students’ thinking emphasizes a different aspect of the inquiry process—putting students in the position of asking questions and reasoning about possible arguments or solutions. To support inquiry and develop students' understanding of historical and social issues, teachers ask open-ended and non-evaluative questions that treat students as sensemakers. Teachers are then positioned to design experiences that build on, extend, and challenge students’ thinking and prepare students to construct or critique arguments about historical and social issues.

Because novices do not always see regular examples of open-ended questions that focus on thinking and interpretation in social studies, it is important to decompose and rehearse the practice of eliciting and interpreting individual students’ thinking in social studies teacher education. For novices, this practice is

¹ Note: This description draws on work from the Elementary Teacher Education program at the University of Michigan and TeachingWorks.
also an essential building block for setting up and managing small group work and leading a group discussion. Last, working on eliciting and interpreting individual students’ thinking provides the opportunity to work on and understand key ways of thinking in social studies (e.g., noticing multiple perspectives, considering multiple causes, recognizing contextual influences) that are a part of the inquiry process of asking questions, evaluating sources, and critiquing or developing interpretations.

**Example: Eliciting and Interpreting Student Thinking in an 8th-Grade Classroom**

In one eighth-grade classroom, students investigated the Trail of Tears by consulting a range of historical sources and writing an evidence-based argument about the causes. The teacher began the investigation by eliciting students’ thinking about the topic of migration and displacement, asking students about experiences they’ve had with moving. The teacher then used the ideas gathered and made connections to them when sharing background relevant to understanding the Trail of Tears.

Then, the class shifted to analyzing sources and developing their own arguments about why the Trail of Tears happened, and the teacher again elicited and interpreted their thinking. As students tried to make sense of historical sources and the inquiry question, the teacher elicited their thinking by asking open-ended questions that put student thinking front and center. Eliciting allowed multiple students to share their reasoning, ask each other questions, and together develop a strong understanding of the sources. Eliciting also gave the teacher opportunities to understand how students were thinking about the sources and guide their thinking with follow-up suggestions or questions that helped students notice important issues or make connections that they had overlooked. When students read a document by then-governor of Michigan, Lewis Cass, they found the governor expressed racist sentiments toward indigenous people and assumed he was an outlier. Through the teacher’s questioning (i.e., what position did this author hold? How did he get this position? What does that tell you about the people who elected him?), the students could see that this historical source indicated that many people likely had negative views of indigenous people at the time, and that mindset may have been a contributing factor to the Trail of Tears.

This example illustrates how the practice of eliciting and interpreting student thinking can support purposeful discussions that enable teachers to understand what students know about a topic and help make connections that lead to the instructional goals.

**Decomposition**

The practice can be broken down, or decomposed, into discrete, teachable parts, described in the diagram and table below.
<table>
<thead>
<tr>
<th>Areas of work</th>
<th>Examples of what this work might involve in social studies</th>
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</thead>
<tbody>
<tr>
<td><strong>1. Formulating and posing questions</strong>&lt;br&gt;designed to elicit and probe the student’s thinking, with sensitivity to how students might hear or respond to the questions.</td>
<td>• Developing general, open-ended questions&lt;br&gt;• Choosing areas of the student’s expressed thinking or work to focus on, and developing appropriate questions&lt;br&gt;• Developing hypotheses to test about the student’s thinking</td>
</tr>
<tr>
<td><strong>What this work might involve in social studies:</strong>&lt;br&gt;• Using texts, objects, artifacts, or images to prompt students’ interest and thinking&lt;br&gt;• Asking questions that have more than one plausible response&lt;br&gt;• Asking questions that relate to a central social or historical problem or issue that will guide the focus of the lesson&lt;br&gt;• Asking non-evaluative questions&lt;br&gt;• Avoiding telling students information or asking right/wrong questions</td>
<td>[Sample videos of fourth graders working in a small group on primary source images about protest in colonial North America: “EIST: Formulating &amp; Posing Questions” clips]</td>
</tr>
<tr>
<td><strong>2. Listening to and interpreting</strong> students’ responses.</td>
<td>• Giving the student plenty of time to speak&lt;br&gt;• Paying close attention to what the student says, without unnecessary interruptions&lt;br&gt;• Noticing specific features of the student’s thinking: common patterns, strengths, strategies, novel ideas, areas of particular interest or engagement, weaknesses, and errors</td>
</tr>
<tr>
<td><strong>What this work might involve in social studies:</strong>&lt;br&gt;• Providing wait time so that students have opportunities to think and talk&lt;br&gt;• Showing interest in and curiosity about students’ ideas&lt;br&gt;• Showing interest in and curiosity about the content&lt;br&gt;• Taking notes or represent students’ ideas visually&lt;br&gt;• Analyze students’ talk to support instructional decision making</td>
<td>[Sample videos of fourth graders working in a small group on primary source images about protest in colonial North America: “Listening to &amp; Interpreting Student Responses” clips]</td>
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<tr>
<td><strong>3. Developing additional questions, prompts, and tasks to probe and unpack</strong> what students say.</td>
<td>• Identifying elements of the student’s thinking that he or she has said little about, and probing further&lt;br&gt;• Identifying particularly interesting or confusing (to the teacher) aspects of the student’s thinking and developing corresponding questions or prompts&lt;br&gt;• Focusing on a particularly strategic aspect of the student’s thinking to probe further (i.e., a good starting point for the student, something he or she needs to work on or develop more)</td>
</tr>
<tr>
<td><strong>What this work might involve in social studies:</strong>&lt;br&gt;• Asking students to use details or phrases from the text or artifact to support their thinking&lt;br&gt;• Asking students to search for details or phrases from the text or artifact that might challenge their thinking</td>
<td></td>
</tr>
</tbody>
</table>
### Areas of work

<table>
<thead>
<tr>
<th>Examples of what this work might involve in social studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Asking students why the author/artist may have created this artifact, who the intended audience was, and how those details shape its meaning (sourcing)</td>
</tr>
<tr>
<td>• Asking students to notice language that indicates the author/artist's perspective (sourcing)</td>
</tr>
<tr>
<td>• Asking students to recognize the time period or place where the author/artist created the artifact and how that may have influenced the author/artist (contextualizing)</td>
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</tbody>
</table>

[Sample videos of 4th graders working in a small group on primary source images about protest in colonial North America: “Probing & Unpacking Student Responses” clips]

### Supporting Novice Teachers

Novices often struggle with *eliciting and interpreting individual students’ thinking*. Novices are often focused on their next instructional steps and may not pause to listen intentionally to students’ thoughts or express interest in students’ thinking. In moments like these, novices tend to give general responses to students, gloss over what students may contribute to the discussion, or not acknowledge a student’s comment at all. Furthermore, novices have trouble knowing when to respond to students’ comments. A set of activities designed to support novices in addressing these challenges follows.
Learning Cycle

Activity 8. Analyzing Field Assignment A
Activity 9. Analyzing Field Assignment B
Activity 10. Feedback to Colleagues

Activity 6. Field Assignment A: Creating a Think-Aloud
Activity 7. Field Assignment B: Eliciting & Responding to Student Thinking

Activity 1A. Evaluating Maps
Activity 1B. Interpreting
Activity 1C. Eliciting
Activity 2A. Evaluating Historical Images
Activity 2B. Interpreting
Activity 2C. Eliciting

Activity 3. Identifying Strengths of Student Contributions
Activity 4. Questions that Elicit Student Thinking
Activity 5. Responding to Student Thinking

The activities listed in this cycle need not be enacted in order, though it may make sense to go through the four quadrants sequentially. The most time-consuming of these for novices will be the field assignment where novices model for small groups in their classroom.

Introduce

Activity #1A: Evaluating and Interpreting Maps
Novices will examine two maps, John Smith’s 1612 map and a recent map from a textbook. They will examine the sources and think about how they will lead students to consider the maps and the central question.

Activity #1B: Listening to and Interpreting Student Thinking about Maps
Novices will watch a classroom discussion as a teacher leads fourth-grade students about what was important to John Smith, using the same maps as in Activity 1A. Novices will then answer questions about the students’ thinking.

Activity #1C: Eliciting Student Thinking about Maps
Novices analyze specific statements that the teacher makes in the previous lesson regarding John Smith. Analyzing the teacher’s statements will help novices understand how the teacher elicits, listens to, and probes student thinking.

Activity #2A: Evaluating and Interpreting Historical Images
Novices examine historical images about protest in North America during the period leading up to the Revolutionary War. Novices think through how they will lead students to consider the images and the central question.

Activity #2B: Listening to and Interpreting Student Thinking about Historical Images
Novices watch a video of a classroom discussion as a teacher leads fourth-grade students to consider how colonists protested British taxes, analyzing the same images used in Activity 2A. Novices then answer questions about the students’ thinking.

**Activity #2C: Eliciting Student Thinking About Historical Images**
Novices analyze what the teacher in the video does to elicit student thinking in the colonial protest small group discussion. Analyzing the statements and actions in the video will help novices understand what the teacher does to elicit, listen to, and probe student thinking.

**TOOL for Decomposing Eliciting and Interpreting Individual Students’ Thinking**
Use this tool throughout your introduction of the practice to support novices in noticing key areas of work involved in the practice and breaking down the practice for greater understanding.

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**Prepare**

**Activity #3: Identifying Strengths of Student Contributions**
Novices will study a transcript to find strengths in a students’ thinking, then prepare to assign competence to students who lack power or authority in their own classroom.

**Activity #4: Designing Questions that Elicit Student Thinking**
This activity allows novices to use historical images to design a sequence of questions that will lead students to answer an essential question. The activity will also help novices prepare specific language they will use to elicit student thinking.

**Activity #5: Responding to Student Thinking**
This activity is designed to prepare novices to respond to students. In this activity, novices will use a transcript of a lesson and prepare alternative responses to students’ thinking.

**TOOL for Decomposing Eliciting and Interpreting Individual Students’ Thinking**
Use this tool as novices plan for eliciting and interpreting individual students’ thinking to support their thinking and preparation for enacting the practice.

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**Enact**

**Activity #6: Field Assignment A - Creating a Think Aloud**
This assignment should be completed in the novice teacher’s field placement. Novices will choose 2-3 different artifacts or texts to share with students as a way to practice eliciting and interpreting student thinking and to learn how students think about sources.

**Activity #7: Field Assignment B - Eliciting and Responding to Student Thinking about Time and Historical Sources**
This assignment should also be completed in the field placement. The purpose of this assignment is to have the novice teacher interact with students to learn more about student’s sense of time, chronological reasoning, and understanding of historical sources using a set of pictures.

**TOOL for Decomposing Eliciting and Interpreting Individual Students’ Thinking**
Use this tool as a reminder of moves to support novice teachers as they work on eliciting and interpreting individual students’ thinking in classrooms.
Analysis

**Activity #8: Field Assignment A - Analysis**
Novice teachers will complete a written analysis that includes the student’s interpretation of the historical documents used in the field assignment. They will also reflect on their own practice as they elicited, listened, and responded to the student’s thinking.

**Activity #9: Field Assignment B – Analysis**
Novice teachers will complete a written analysis that includes the student’s interpretation of the historical documents used in the field assignment. Novice teachers will also reflect on their own practice as they elicited, listened, and responded to the student’s thinking.

**Activity #10: Feedback to Colleagues**
This in-class activity is designed to help novice teachers reflect on Field Assignment A and provide feedback to one of their colleagues.

**TOOL for Decomposing Eliciting and Interpreting Individual Students’ Thinking**
Use this tool as a reminder of moves to support novice teachers as they work on eliciting and interpreting individual students' thinking in classroom.

**RELEVANT READINGS FOR NOVICE TEACHERS**


**REFERENCES**


