In The Ohio State University Libraries, we support inclusive and equitable teaching practices through instructor development. The Libraries’ Teaching and Learning department offers two formal university-wide, cross-campus instructor development programs, Meaningful Inquiry and Teaching Information Literacy. In this chapter, we outline our programs, highlight the equity-focused pedagogical strategies that we incorporate, and provide activities and templates readers can use to support equity and inclusion in their own work with instructors.

Meaningful Inquiry is a five-part workshop developed in collaboration with Writing Across the Curriculum and The Ohio State Newark Library intended to support instructors in developing equitable and meaningful research or inquiry-based assignments. Originally an in-person workshop, in 2020 Meaningful Inquiry was redesigned into a virtual series due to COVID-19. Our second program, Teaching Information Literacy, is a self-paced online course intended to help participants strategically incorporate information literacy into their courses and, in doing so, create a more equitable learning environment for all students. Our university’s Drake Institute for Teaching and Learning offers credentials, known as teaching endorsements, for faculty and staff who complete professional development programs. Both
Meaningful Inquiry and Teaching Information Literacy are available as teaching endorsements and are open to all instructors and faculty, graduate teaching associates, librarians, instructional designers, and staff from across the university.\textsuperscript{2}

In each program, we incorporate pedagogical strategies aimed at increasing equity and inclusion, among them Estela Mara Bensimon’s cognitive frames, the Decoding the Disciplines model developed by Joan Middendorf and David Pace, and the Transparency in Learning and Teaching (TILT) framework developed by Mary-Ann Winklemes and colleagues.\textsuperscript{3} We combine these strategies with the Framework for Information Literacy for Higher Education to support instructors’ capacity to teach information literacy and create more equitable and transparent assignments.\textsuperscript{4}

**Equitable Strategies/Pedagogies**

We believe that the ways of thinking and knowing articulated in the Framework for Information Literacy remain part of a hidden curriculum for many students, including those whose identities have been marginalized in higher education.\textsuperscript{5} Instructors develop assignments and expectations for performance based on these ways of thinking and knowing, but they are not always explicitly or transparently taught or discussed with students. Instructors may assume that students have already learned these ways of thinking or knowing or that they are learning them in another course. Furthermore, most instructors have likely internalized these ways of thinking and knowing—they have crossed those conceptual thresholds—and might not be able to remember a time when they did not incorporate them into their work. One of the shared goals in both Meaningful Inquiry and Teaching Information Literacy is to increase equity by encouraging instructors to explicitly identify, model, and discuss the practices and expectations that are included in this hidden curriculum.

**Bensimon’s Cognitive Frames**

To achieve this goal, we draw upon Dr. Estela Mara Bensimon’s cognitive frames to provide us with an equitable foundation for our instructor development programming.\textsuperscript{6} Dr. Bensimon outlines three frames that instructors, administrators, and staff might use to develop programming or services to close racial equity gaps in higher education. The first is a deficit frame, in which the programming or service attempts to fix the student. In this frame, the student is viewed as deficient, and they might be subjected to programs like remedial or developmental education. The second is the diversity frame, in which the solution is to fix the workers or employees. In this
frame, employees celebrate diversity but are also required or encouraged to attend workshops and training. While there is nothing inherently wrong with many of the activities in this frame, they ultimately do not move the needle to equity because they do not address systemic or cultural issues that create inequities among different student populations. In other words, activities in the diversity frame do not address the root causes of the inequities. In the equity frame, the goal is to fix the culture, including systems and processes that continue to reproduce inequities.

There is a lot of overlap among these frames, and our instructor development programming has elements of both the diversity and equity frames. This programming is quite literally a series of workshops or modules for course instructors that address elements of their practice. However, we do truly believe that we are working toward culture change within classrooms across the university by highlighting the potentially tacit nature of information literacy for many students and discussing its possible role in reproducing persistent equity gaps. We intend to normalize reflection on students’ information literacy, their performance on research assignments, and changes to teaching practices to create a more equitable and transparent learning environment. In other words, as Bensimon describes, we are trying to make the “invisible visible and undiscussable discussable.”

Decoding the Disciplines

A key aspect of both Meaningful Inquiry and Teaching Information Literacy is encouraging instructors to identify the bottlenecks within their disciplines and course content that students consistently find challenging. Decoding the Disciplines provides a structure for these discussions, asking instructors to consider the mental tasks they expect students to perform in order to successfully complete research assignments. We believe that these tacit assumptions create challenges for students as they do not yet have the mental models that an expert would have in these situations. Instructors need to think back to their own experiences as novices to determine how they learned to complete these research tasks; after identifying bottlenecks, instructors can consider how they would model these hidden tasks for students and provide them with opportunities to practice and receive formative feedback.

We make a point to link the Framework for Information Literacy to Decoding the Disciplines by asking participants to identify the threshold concepts and dispositions from the Framework that are most important for helping students move past research bottlenecks. Prioritizing the research practices necessary for student success is crucial, as students may not receive formal research instruction before arriving at a university; additionally, students may be asked to engage with discipline-specific research practices. This work helps instructors identify how they can make their research assignments more equitable and connect topics in their disciplines to the classes that they teach.
Transparency in Learning and Teaching (TILT)

A main focus in each program is helping instructors uncover the hidden ways of thinking and knowing in their specialization. This can be as large as the task that it is to learn how to be a part of a discipline, or as small as the process it takes for a novice to understand and engage with the content in a course, a process that may be contributing to student learning bottlenecks if hidden. Once instructors have identified the bottlenecks and considered their disciplinary knowledge, we introduce TILT (Transparency in Learning and Teaching).\(^{10}\) TILT encourages instructors to explicitly outline three components of research assignments for students. First, the PURPOSE of the assignment, including how it connects to course or program learning outcomes. Second, the TASKS that students will need to complete as part of the assignment. And third, the CRITERIA by which students’ grades will be determined.

A student has little to no chance of success in an assignment if the goals for it, along with descriptions of an expected outcome, are not explicit. TILT provides instructors with guidance for how they can be transparent about all details of research assignments. This means ensuring learning outcomes are written for a student audience, providing detailed and organized explanations of how the final product will be graded, and sharing examples of the work expected, knowing that these changes can help shift a student’s motivation for assignment completion.

While TILT is included in both programs as a means to encourage instructors to clarify their expectations, thus increasing the ability of all students to successfully complete research assignments, in Meaningful Inquiry, TILT is also used to support an additional workshop goal, the creation of research assignments that are meaningful. We encourage instructors to reflect upon what their purpose is for a research-based assignment, if they consider their assignments to be meaningful to students, and if not, how they could become so. With emphasis on providing students with authentic tasks, we ask instructors to begin to think about how to connect the materials to students’ lives and current interests as well as their future lives, post-graduation.\(^{11}\)

This gentle approach to shifting what lies behind the curtain of teaching, to sharing openly with students, encourages instructors to be more thoughtful about assignment purpose and final design, and thus creates a more equitable opportunity for all students. It is important to note that, although we have described Decoding and TILT separately, in practice, we use them together, building off of each to ensure instructors have a robust tool kit to address changes in their courses’ content. Repeatedly in feedback, participants mentioned Decoding hand in hand with TILT, showing how deeply intertwined the concepts were in application to their own courses and
assignments. Many participants also indicated their plans to redesign or reconsider course assignments with a focus on transparency in order to create a more positive experience for all students.

Meaningful Inquiry Redesign Template

An overview of the basic assignment redesign process that participants use in Meaningful Inquiry is provided in table 40.1, indicating where specific pedagogical strategies or frames are incorporated.

Table 40.1
Meaningful Inquiry assignment redesign process

<table>
<thead>
<tr>
<th>Step</th>
<th>Goal</th>
<th>Action</th>
<th>Pedagogical Frame or Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify student achievement gaps</td>
<td>Consider achievement gaps in higher education and approaches to overcome gaps</td>
<td>Bensimon’s Cognitive Frames</td>
</tr>
<tr>
<td>2</td>
<td>Uncover learning bottlenecks</td>
<td>Identify places where students get stuck or fail to meet expectations</td>
<td>Decoding the Disciplines</td>
</tr>
<tr>
<td>3</td>
<td>Identify ways of thinking or knowing that contribute to bottlenecks</td>
<td>Use the Framework for Information Literacy to highlight key concepts, knowledge practices, or dispositions related to learning bottlenecks</td>
<td>Decoding the Disciplines, the Framework for Information Literacy</td>
</tr>
<tr>
<td>4</td>
<td>Identify characteristics of meaningful assignments</td>
<td>Consider factors that contribute to making assignments meaningful (aligned with students’ interests or future goals)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Consider the purpose</td>
<td>Reflect on the purpose of their research assignments</td>
<td>Decoding the Disciplines, TILT</td>
</tr>
<tr>
<td>6</td>
<td>Outline assignment revisions</td>
<td>Identify changes they can make in order to integrate information literacy, overcome bottlenecks, add meaning</td>
<td>Framework for Information Literacy, Decoding the Disciplines</td>
</tr>
</tbody>
</table>
Table 40.1
Meaningful Inquiry assignment redesign process

<table>
<thead>
<tr>
<th>Step</th>
<th>Goal</th>
<th>Action</th>
<th>Pedagogical Frame or Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Apply TILT</td>
<td>Clarify the purpose, tasks, and criteria for assignment</td>
<td>TILT &amp; Decoding the Disciplines</td>
</tr>
</tbody>
</table>

Meaningful Inquiry Activities

In this section, we share examples of activities from the Meaningful Inquiry workshop intended to help instructors identify learning bottlenecks and make explicit connections to the Framework for Information Literacy for Higher Education.

Reflective Prompt (Table 40.1, Step 2)

First, participants complete a reflection designed to help them connect their own experiences as an instructor with workshop content, by responding to the following prompt: What are some of the common ways in which students fall short of meeting your expectations on research assignments?

Activity: Connecting Bottlenecks with the Framework (Table 40.1, Step 3)

After identifying initial bottlenecks, participants are encouraged to connect the bottlenecks with the Framework by answering the following questions:

1. Which of the information literacy frames are most relevant to the common ways in which students fall short of meeting your expectations on research assignments? Why do you feel this frame (or frames) is relevant?
2. Explore the dispositions and knowledge practices for the selected threshold concept. Which of these do you think are most important for helping students to move past the bottleneck that you’ve identified? Which of these do you believe may be tacit for students who struggle with the bottleneck?

We have found this activity is more successful if we first provide very brief overviews of each frame. The librarians at Bucknell University have created posters we have found to be helpful for providing a quick introduction to the Framework. After an
instructor has identified the relevant frames, they can then turn to the Framework to read a more complete description, including the dispositions and knowledge practices.

**Reflective Prompt (Table 40.1, Steps 5–7)**

In this reflective activity, participants consider their own assignments in relation to what they have learned about Decoding, TILT, and meaningful assignments throughout the workshop by answering the following questions:

1. When you assess student performance, what are you rewarding?
2. How do you give students practice with and feedback on those things that you are rewarding in their performance on the final assignment?
3. Do you give students the opportunity to reflect on what they’re learning or how they’re growing?

At the end of the workshop, participants are encouraged to submit an action plan where they indicate how they intend to incorporate content from the workshop in order to create more meaningful and equitable assignments. Although the action plan can take a variety of formats, we have structured prompts for each of the main topics within the workshop for the participants to apply their learning to their courses. These prompts are

1. How could you more purposefully integrate information literacy into your course?
2. What are some things that you could do to help students overcome the bottlenecks you have identified?
3. How could you better clarify the purpose, tasks, and criteria for your research assignment?
4. How could you make your research assignments more meaningful for students?
5. What kinds of support would you need to make these changes to your assignment(s)? What do you need to learn more about?

**Teaching Information Literacy Redesign Template**

As with Meaningful Inquiry, one of the foundational aspects of the Teaching Information Literacy course is that instructors’ expectations for student performance are often based on understandings and assumptions about research and scholarship that are broadly shared across experienced researchers, but which may not be familiar to novice learners. However, rather than just attempting to fix the students (as with the deficit frame described by Bensimon), the goal is to change the approach that
instructors take to teaching information literacy in order to create a more equitable learning environment for all students.

Participants follow a course or assignment redesign process (outlined in Table 40.2), in which they learn about the core information literacy concepts from the *Framework for Information Literacy*, identify information literacy–related learning bottlenecks related to the core concepts, and recognize the hidden assumptions or expectations they have that may be contributing to these bottlenecks. Finally, participants develop strategies or activities that they can use to support all students’ capacity to move past these bottlenecks.

**Table 40.2**

Teaching Information Literacy assignment or course redesign process

<table>
<thead>
<tr>
<th>Step</th>
<th>Goal</th>
<th>Action</th>
<th>Pedagogical Frame or Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify learning bottlenecks</td>
<td>Assess previous assignments and student performance to identify places where students get stuck</td>
<td>Decoding the Disciplines</td>
</tr>
<tr>
<td>2</td>
<td>Identify expectations and disciplinary knowledge</td>
<td>Use the Framework to identify expectations, assumptions, and disciplinary knowledge that may contribute to learning bottlenecks</td>
<td>Framework for Information Literacy, Decoding the Disciplines</td>
</tr>
<tr>
<td>3</td>
<td>Identify information literacy goals or learning outcomes</td>
<td>Determine what students need to understand or be able to do related to information literacy</td>
<td>Framework for Information Literacy</td>
</tr>
<tr>
<td>4</td>
<td>Identify assessment options</td>
<td>Consider a range of assessment methods to determine whether students are meeting goals</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Develop learning activities or assignments</td>
<td>Develop or revise one or more activities to help students meet learning outcomes</td>
<td>Framework for Information Literacy, Decoding the Disciplines</td>
</tr>
<tr>
<td>6</td>
<td>Apply TILT</td>
<td>Use TILT to clarify the purpose, tasks, and criteria for their draft activities or assignments</td>
<td>TILT</td>
</tr>
</tbody>
</table>
Teaching Information Literacy Activities

This section outlines two activities that participants complete as part of the course that are intended to help make hidden expectations visible and transparent for all students.

Activity: Identifying Hidden Disciplinary Knowledge (Table 40.2, Step 2)

After learning about the core concepts from the Framework, participants attempt to surface the knowledge they have about research practices in their discipline. The activity is based on the work of Sara D. Miller, who combined the Decoding the Disciplines model with the Framework to develop a series of reflective questions that instructors can use to identify their tacit disciplinary knowledge. Without realizing it, instructors may be holding students accountable for not meeting the standards of research in their field, even though students have not yet been exposed to those standards.

In their workbook, participants consider questions, based on those developed by Miller, that are related to each of the core concepts and are designed to draw out the disciplinary knowledge that participants have. For the purposes of the activity, the wording of some questions has been revised slightly from Miller’s original wording. Questions include the following:

AUTHORITY IS CONSTRUCTED AND CONTEXTUAL
- Who are the authorities in your field? What makes them authorities?
- What processes contribute to the construction of authority in your field?

INFORMATION CREATION AS A PROCESS
- What information are most common in your field?
- Are some formats considered more authoritative?

INFORMATION HAS VALUE
- What are the for attribution in your field?
- Is access to in your field limited in some way? If so, who has access and who does not?

RESEARCH AS INQUIRY
- What does it to research in your field?
- What counts as in your field?
SCHOLARSHIP AS CONVERSATION

- How do the in your field take place? Who are the participants?
- In what types of do the conversations appear (books, journals, websites)?

SEARCHING AS STRATEGIC EXPLORATION

- What information tools resources are most relevant to your field?
- What search behaviors or search strategies are commonly used in your field?

Participants then respond to the following question: How do you think your hidden knowledge may be contributing to the bottlenecks you see?

Asking participants to reflect on these questions is intended to help them to identify what information literacy looks like in their field. It also brings awareness to how much knowledge participants have gained about researching in their field since they were a novice. More importantly, it is intended to help them acknowledge the ways in which their disciplinary knowledge could be creating unrealistic expectations for novice learners and identify ways to address these issues in their teaching.

Activity: Incorporating TILT (Table 40.2, Step 6)

One of the ways that instructors are then encouraged to make their hidden expectations visible is by using TILT. After developing a draft assignment or activity, participants answer the following questions:

- What terminology may cause difficulties for students?
- What is the specific PURPOSE of the assignment or activity?
- What TASKS will students need to do in order to complete the activity?
- What CRITERIA will their performance be evaluated on?

Combining the Framework for Information Literacy, Decoding the Disciplines, and TILT in this way gives participants direction for how they can integrate information literacy into their courses in a way that will be more equitable because the expectations will be clear to all students. Participants are encouraged to explicitly share information on the purpose, tasks, and criteria as part of the instructions or guidance they provide to students when they assign research or inquiry-based projects.

Conclusion

Since 2019, sixty-three participants have completed the Meaningful Inquiry workshops and twenty-seven participants have completed the Teaching Information Literacy course. Participant feedback has been positive, and we are aware, anecdotally, of
several courses in which participants have used strategies learned in the workshops to revise learning outcomes and assignments.\textsuperscript{14}

Our instructor development programs are only one example of our efforts to support equity and inclusion in our work. While we value the opportunity to provide instruction directly to students and continue to do so both through curricular and cocurricular programming, we also recognize the challenges of reaching all students directly, especially at an institution the size of Ohio State. For this reason, we have made instructor development one of the key activities of the Teaching and Learning department. By teaching instructors, our reach to undergraduates is amplified and our ability to promote equitable and inclusive teaching practices is increased. Through this work, we inspire instructors to approach their teaching through an equity lens.

Although not all academic libraries will have the opportunity to offer full professional development programs such as Meaningful Inquiry and Teaching Information Literacy, there are opportunities at multiple types of institutions to incorporate an equity focus into instructor development work. Pedagogical models such as Decoding the Disciplines and TILT offer easily approachable and adaptable guidelines that instructors can use to help make their research or inquiry-based assignments more equitable and inclusive for all students. Librarians who work with instructors on course or assignment design projects can follow the model above to support instructors and can also incorporate these strategies into their own work as instructors.

Notes

1. We use the term \textit{instructor development}, rather than \textit{faculty development}, to indicate that many of those who teach or provide instructional support (including many who participate in our programming) do not have faculty status.


Participants in our workshops include instructors from across the university with a variety of appointments, including tenure-stream and tenured faculty, associated and contingent faculty, and graduate teaching associates. In addition, we welcome participants who serve in teaching and learning support roles, including library employees, instructional designers, educational technologists, and instructional consultants.

9. Middendorf and Pace, “Decoding the Disciplines”; Decoding the Disciplines home page.
14. For Meaningful Inquiry, we are currently in the process of analyzing participant responses to pre- and post-workshop surveys but are not yet able to share conclusions about the impact of this work on instructors. For both programs, long-term, formal assessment of the impact of this work on student learning is challenging, as we must rely on instructor reports of impact.

Bibliography


