Disciplined Improvisation in Service of Equitable ELA Instruction: A Framework

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This project studies how teachers learn to foster equitable classrooms in diverse, secondary English language arts classrooms (ELA). We focus on classroom discussion because discussion offers important meaning-making opportunities, offers teachers a lot to notice, and places significant demands on teachers' in-the-moment decision-making. We define *equitable* ELA instruction as instruction that acknowledges and attempts to disrupt the implicit power structures that exist in classrooms and in the world. Such instruction attends to the ways in which unequal power affects who participates in discussion and how they participate. It also uses texts to help students think critically about sociocultural and sociopolitical influences on the world around them and on their interpretation of events. Inviting teachers to explore these issues in their teaching is a first step in building more just schools and societies.

We hypothesize that when teachers notice interactions in their classrooms using an intentional, *disciplined* approach their decision-making will center equitable instruction. This informed decision making is an inherently *improvisational* act, one that thrives on the highly contingent nature of students' ideas about literature. Thus, we employ the term *disciplined improvisation* to describe teaching practices that rigorously notice classroom interactions and the instructional adaptations that flow from that noticing.

This framework conceptualizes teacher noticing in service of equitable ELA instruction and provides examples of it. We define the various components of noticing for equitable ELA instruction, and describe a continuum of teacher development using examples of what this might look like in the classroom. Our goal is to use this framework to inform design of teaching simulations.

What is teacher noticing?

Noticing stems from cognitive science models that address how people process information. These models posit that we perceive information and make connections to existing knowledge to make sense of our perceptions (Mayer, 2012). Teacher noticing is specifically concerned with perceptions and sensemaking as it relates to instruction. Scheiner (2021) argues that teacher noticing is a process that is framed by a teacher's culture and history and that culture and history not only impact how teachers interpret their perceptions but also what information they seek out.

Such noticing includes recognizing when students meaningfully contribute to a discussion, gauging student mastery of a topic, or detecting discomfort by observing body language. Because teacher noticing is framed by history and culture and is an active process, what teachers notice and how they respond involves highly personal decisions and there is no "right way" to notice.

The act of teacher noticing is often presented as involving three components: *attending* to instances where a teacher detects something notable in the classroom; *interpreting* or understanding the event; and *responding* or thinking about and acting upon next steps (Jacobs, Lamb, & Philipp, 2010; van Es, Hand, & Mercado, 2017).

Such noticing can happen *in-the-moment* or *after-the-moment* (Criswell & Krall, 2017); while teachers are constantly noticing during instruction they also process classroom events after the school day has ended. In-the-moment noticing and disciplined improvisation are intertwined-- they both involve attending to classroom interactions, interpreting those events, and responding to them by adjusting instruction as the classroom interactions play out. A body of noticing research also focuses on teacher noticing after classroom interactions, particularly upon watching videos of their own teaching (for some examples, see Roller, 2016; McDuffie et al., 2014, van Es, 2009; van Es, 2011).

In this project, we describe noticing that happens after-the-moment using the term *revisiting with resources*. While disciplined improvisation requires action in-the-moment, to better understand how disciplined improvisation might impact other aspects of learning to teach, we will also collect data on revisiting with resources.

Noticing lenses
Teachers' noticings are in constant conversation with a teachers' instructional priorities. Priorities serve as lenses for highlighting certain noticings and responses over others. We refer to these as *noticing lenses.* This framework is organized around three noticing lenses that represent major categories of what ELA teachers may prioritize when engaging diverse students in discussions about texts: *Noticing for Discourse, Noticing for Equity,* and *Noticing for Disciplinary Learning in ELA.*

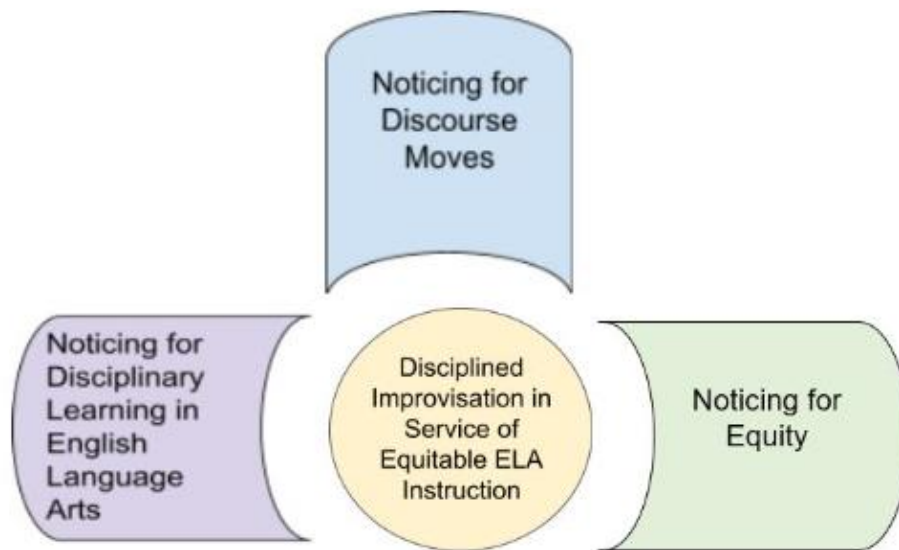These noticing lenses are presented in Figure 1 and are discussed in later sections of this paper.

Figure 1. Framework for Disciplined Improvisation in Service of Equitable ELA Instruction

Tensions Within and Across Lenses
Oftentimes, teachers' priorities pull them in different directions. A core idea in this design framework is that tensions emerge when multiple priorities compete, that these tensions *can be rich sites of teacher learning*, and that designing for these tensions is central to how teaching simulations can foster disciplined improvisation. While we see many ways in which the noticing

lenses complement one another, we also envision many ways in which these lenses make ELA discussion a complicated endeavor. In each of the subsequent sections, we highlight the possible tensions that surface within and across these lenses.

Noticing for Disciplinary Learning in English Language Arts

Introduction
Teacher noticing involves attending to classroom interactions, interpreting what is observed, and using what is observed to make decisions (Patterson Williams, Higgs, & Athanases, 2020). *Noticing for English Language Arts (ELA) disciplinary practices* contextualizes teachers' attention, interpretation, and decision-making within the dynamics of student reading and interpretation of literary texts, such as novels, poems, drama, and short stories. ELA teachers should feel equipped to foster diverse perspectives on literary texts - to not only notice when students interpret texts in ways that align with ELA goals and standards, but also to seek to understand when students make sense of texts in ways that teachers may find unfamiliar.

ELA disciplinary literacy refers to the specifics of reading, writing, and communicating within the discipline of English language arts. When it comes to the ways students discuss texts, ELA teachers may notice students connecting texts to their own lives, engaging in interpretive thinking, and choosing evidence to argue their points about literature. This framework offers some fundamental areas of ELA disciplinary reading that might lend themselves to creation of teaching simulations.

Dimensions of Noticing for ELA Disciplinary Practices
In this section we identify specific dimensions of Noticing for ELA Disciplinary Practices that will be focused on in our teaching simulations, attending to how students explore: (a) their own and others' responses to texts; (b) the ways authors craft literary texts; (c) how to use evidence to convey interpretations to others; and (d) how texts connect to bigger conversations about the world. We define each dimension and identify dimension-level behaviors that might indicate the extent to which teachers have developed expertise in ELA Disciplinary Practices.

Attending to how students explore their own and others' personal responses to texts. At a foundational level, reading a literary text involves a deeply personal transaction with a work of literature, an idea that traces back to reader response theory (Rosenblatt, 1978). Students' interpretations of literature are shaped by their lives, experiences, and beliefs, and sometimes this causes their interpretations to be different from what others understand about a text. A text discussion helps surface these different interpretations and puts students in conversation with one another. Teachers often struggle with wanting to honor students' ways of interpreting texts while also wanting them to arrive at what the teacher's interpretation.

Teachers at varying stages of development in attending to how students make sense of their own and others' responses to texts might do the following:

1. Emergent teacher: adheres to the idea that there is one acceptable understanding of text's meaning, usually emphasizing surface details such as plot and vocabulary. The instructional goal is for students to arrive at the teacher's understanding of text efficiently, often via lecture or recitation.

2. Developing teacher: the teacher recognizes a number of possible interpretations, and elicits a lot of ideas, but still nudges/scaffolds students towards what the teacher expects them to understand about a text. The teacher might provide students with vocabulary or

background knowledge before or during discussion in the hopes of making a specific point about the text.

3. Advanced teacher: the teacher takes the stance that there are multiple valid interpretations of a text and centers discussion around students' interpretation. The teacher might seek ideas from students and then ask others to reflect on them. Providing students with vocabulary or background knowledge is not entirely avoided, but is done intentionally, with the goal of opening up more space for students to share their responses to the text.

Attending to how students explore the ways authors craft literary texts. Authors employ certain techniques that draw readers in and allow them to discover deeper meaning (Rabinowitz, 1987). One goal of ELA instruction is to introduce students to these techniques and have conversations about literary devices that students may see within and across texts. Students can notice these techniques with or without the academic vocabulary used to describe them. For example, students might notice an author's descriptive word choice and form ideas about authors' use of *imagery* or they might notice that they feel a certain way about a character and form ideas about *characterization.* They can engage with these concepts even if they haven't been introduced to the specific term*.*

In the poem used for our simulations - *Legal Alien* by Pat Mora - students may notice the way the author uses hyphens or line breaks or the repetition of certain words to enrich the poem. A teacher may need to decide how to connect what students are noticing to bigger take-aways about how poetry is written. Some teachers may take a more hands-off, exploratory approach to discussion, providing students room to construct meaning on their own terms, deepening their experience with literature. However, a teacher might also feel that "deepening students' experience with literature" means providing them with disciplinary-specific terms, or highlighting certain lines as particularly important, or by simply telling students what the text means. Any and all these priorities may be in play as teachers attend to what students notice about the way authors craft literary texts.

Teachers at varying stages of development might therefore approach their teaching as follows:

1. Emergent teacher: Teacher pre-selects certain literary devices to emphasize in a lesson and facilitates discussion in a way that requires students to identify examples of these devices. Students are asked to look for examples of a literary device, explain why they think it is a good example, and the teacher tells students if they are correct.

2. Developing teacher: Teacher uses an exploratory approach, where they introduce the literary term and students explore the text, saying where they think that idea is playing out; while the teacher accepts a range of possible interpretations, they remain the ultimate arbiter of whether or not students have correctly understood the concept.

3. Advanced teacher: Teacher attends to patterns in what students notice about the text, and appreciates these noticings in their own right. They seek ways to enrich what students are noticing by naming a literary device. For example, "So what you all seem to be noticing is an author's use of imagery…**"**. The teacher does not assume students are unable to interpret texts because they are unfamiliar with certain literary devices.

Attending to how students use evidence to convey interpretations to others. Another disciplinary goal of ELA is the ability to defend one's interpretation of a text. When a teacher focuses on this particular goal, they attend to moments when students cite evidence to support their ideas. Sometimes, this evidence is taken directly from the text; at other times, evidence can come from students' own personal understanding of the world.

Because our project focuses on text discussions, a teacher may prioritize opportunities for students to argue their points to one another. If a teacher notices two differing interpretations, they might attend to them by insisting that the students talk to one another about it, or they might invite the rest of the class to weigh in. Later, the teacher might return to the original speaker to hear if they have anything more to add to their interpretation. Depending on the teacher's goals, they might seek consensus before moving on with the discussion, or the teacher might be seeking to validate multiple interpretations.

Teachers along the continuum of attending to how students use evidence to convey their interpretations might approach their teaching as follows:

1. Emergent teacher: takes a teacher-centered view of what counts as evidence: it is only found within the text at hand, and is used in service of convincing the teacher of one's interpretation.

2. Developing teacher: uses an open-minded approach to what counts as evidence, allowing for personal evidence from students' lived experiences to be used alongside textual evidence; however, the ultimate goal is to convince the teacher that the evidence is meaningful.

3. Advanced teacher: accepts multiple sources of evidence, and the validity of the evidence is tested by *students in dialogue*, rather than by the teacher. I.e.: "So you just said that the author doesn't like her mom's advice because you yourself don't like when your mom gives you advice...what do the rest of us make of that argument?"

Attending to how students evaluate how texts connect to bigger conversations about the world. A prominent ELA disciplinary goal is that students use literature to develop a deeper understanding of themselves, others, and the world around them when they read literary texts. To this end, students should have the opportunity to discuss what they believe a text says about the world. Some teachers may push students towards a specific conclusion. Others may be curious about what students took away from the text. Teachers might encounter students who resist the worldview that a text espouses, and will be in a position to encourage or dissuade student resistance to what they have read.

Authors often hope that their texts will provoke discussion of ideas about the world and refer to these ideas as *themes.* Getting readers to explore the themes in a text is a main goal for authors and teachers alike. Both identifying themes and determining how themes make you feel are important aspects of reading, and it is especially important that students are able to take diverse perspectives on themes and critique them.
Teachers at different stages of attending to how students connect texts to bigger conversations about the world might use the following approaches:

1. Emergent teacher: does not attend to moments when students link texts to bigger ideas or expects students to only engage with teacher predetermined themes. The teacher does not create space for students to question a text's world view or ideologies.

2. Developing teacher: Teacher encourages students to develop their own takes on what the text says about the world, but also guides discussion to argue for the teacher's interpretation or encourages particular stances on themes that students have identified.

3. Advanced teacher: pays close attention to how students make sense of what a text says about the world, and fosters discussion by encouraging students to comment on one another's perspectives. The teacher notices, wonders about, and may encourage moments when students are resistant to interpretations about what a text says about the world.

Noticing for Discourse Moves

Introduction

Teacher noticing involves attending to classroom interactions, interpreting what is observed, and using what is observed to make decisions (Patterson Williams, Higgs, & Athanases, 2020). Noticing for discourse, then, contextualizes teachers' attention, interpretation, and decision-making within the dynamics of *dialogic* ELA instruction. *Dialogic instruction* places an emphasis on eliciting and promoting discussion among students. Noticing for discourse in this context requires teachers to attend to the ways their facilitation creates opportunities for students to talk to one another. This framework highlights certain facilitation moves and outlines how teachers may attend to the ways these moves play out with students. This framework also addresses the ways teachers might attend to students speaking and interacting in ways that typically do not get valued in schools, such as using languages other than English or relying on slang or youth speak to help them convey their points.

Dimensions of Noticing for Discourse

Questions that elicit thinking. Teachers typically pose questions to elicit students' thinking about a text. Sometimes these questions look for a predetermined answer (sometimes called *test questions),* and sometimes these questions are more open-ended (sometimes called *authentic questions).* Questions that seek a predetermined answer are common features of teacher-directed talk, whereby students are expected to respond to these questions and are told by the teacher whether they are correct or not. Alternatively, teachers may employ more open-ended, authentic questions that seek to elicit student thinking. These questions ideally lead to multiple student contributions that the teacher can then begin to explore further using other talk moves.

Some teachers interpret these questions in terms of their *depth of knowledge (DOK).* A question that represents a lower depth of knowledge involves students *recalling* facts about what they have read. Higher levels of DOK involve asking questions that require students to connect their thinking about a text to another context, or to evaluate whether they agree or disagree with what an author is saying.

How students respond to a teacher's questioning offers a number of avenues for design of teaching simulations. Even if teachers craft what they assume to be a truly authentic question,

students may respond with silence, or may offer a response that they believe to be the "correct" answer the teacher is seeking.

Teachers along the continuum of using questions to elicit student thinking might approach their teaching as follows:

1. Emergent teacher: initiates and facilitates discussion using questions that ask students to recall information about a text. May overlook the fact that these questions elicit brief responses from students, or responses from students that have a questioning intonation (Student: "Umm...the main character...is unhappy?"), or cause students to respond with silence.

2. Developing teacher: Initiates discussion with questions that they believe to be authentic, but the wording might still telegraph to students that they are seeking a correct answer and do not ask students to connect information or synthesize ideas. For example, asking "What is the theme of the novel?" as opposed to "What do you all think are some of the themes of the novel?" may seem like it has a lot of answers, but to some students, it still sounds like there is a set list of themes that are acceptable. The teacher may also word authentic questions in a way that asks students to respond to the teacher, rather than other students: "So tell me what you think about this passage."

3. Advanced teacher: Asks questions that demonstrate an authentic interest in students' thinking. Questions are open-ended and designed to get students to interpret, evaluate or synthesize information. As such, they do not telegraph that a teacher is looking for a particular interpretation. Advanced teachers demonstrate an understanding that there is a lot of nuance to question posing and notice the ways in which their questions function with certain students. For example, an advanced teacher might notice when students respond more readily to certain kinds of questions. Some students might focus on questions that allow them to reflect on their own lives (i.e. "This poem is about a daughter and her mother. What's a memory you have about your mother?"); others might respond more readily to questions that focus directly on the text ("How are the images in this poem making you think about the speaker's relationship with their mother?").

Responding to students non-evaluatively. Once students respond to teachers' questions, the goal is then to generate talk in which students respond to one another's ideas, rather than have a teacher evaluate each idea as correct or incorrect. To do so, teachers can ask students to elaborate on their own ideas or speak to the ideas of others. Such *uptake* involves validating students' ideas by incorporating them into the ensuing discussion. Uptake sometimes involves asking a student to elaborate ("Say more about that."), or targeting specific ideas in a student's idea that they would like the group to take up ("When you said the word *imagery*, what were you referring to?").

Sometimes, teachers will repeat or rephrase what students say, employing the move of *revoicing*. Revoicing is sometimes used to rephrase what a student has said into more academic language (Student: "Yeah, I'm the same as Ramon."; Teacher: "Oh, so you *agree with* Ramon."). Even though revoicing can help center the conversation on what students say, revoicing certain students - particularly English learners - may signal to the students that their way of speaking is inadequate.

Teachers along the continuum of responding non-evaluatively to student thinking might approach their teaching as follows:

1. Emergent teacher: Evaluates students' ideas as right or wrong, rather than employing uptake: "That's correct!" or "Hrm, that's not exactly what the book says...anyone else?"

2. Developing teacher: Recognizes the importance of uptake and the need to avoid evaluating students' ideas. However, the teacher employs uptake with the primary goal of avoiding evaluation, rather than strategically using it to foster more discussion. This may lead a developing teacher to rely on the same uptake technique, repeatedly revoicing what a student has said, or simply inviting others to respond to a student's idea.

3. Advanced teacher: Strategically employs uptake in order to center student ideas in a discussion. Attends to the reasoning behind their uptake choices, as well as how these choices played out with students. Attends to patterns in their facilitation, including whether they use certain uptake moves more or less frequently with certain students - for example, frequently rephrasing what a bilingual learner has said into more academic English.

Attending to student-to-student talk.

A major goal of ELA discussion is to have students respond to one another, rather than having talk dominated by the teacher. Teachers who want more student-led talk need to decide when to step into discussion and when to step back. Teachers can silently listen as they allow conversation to build amongst students, or they can strategically insert themselves into the conversation in order to summarize what they have heard, invite others to speak, or point out perceived agreement or disagreement.

Off-course talk, problematic or hateful ideas, or incorrect readings of a text are all moments that might challenge a teacher to consider the risks and affordances of intervening. Alternatively, teachers might also feel challenged about stepping in when talk is going well: a student might raise a point that really excites a teacher, or aligns closely with the teacher's reading of the text, and a teacher needs to decide whether endorsing that idea will open up or close down the conversation.

Student-to-student talk ideally involves students *building on each other's ideas*. Noticing the ways students build in the moment can be challenging. Sometimes students build by adding a lot of information, or they might simply express agreement by saying "Yeah". Students might also seem to be building but then add information that does not seem relevant to what has just been said. Noticing the ways students build on one another's ideas can be a powerful way for teachers to attend to students' conversations, since this provides opportunities for students to explore why their ideas are similar or different.

Student-to-student talk can also contain words or phrases that teachers deem *non-academic*. This includes slang words, casual phrases such as "y'know" or "kinda", or words drawn from students' native languages. Some teachers may intervene and request students use more *academic language* or to speak only in English. However, correcting students' language can

sometimes stifle discussion, communicating to students that their preferred ways of speaking are not valued.

Teachers along the continuum of attending to student-to-student talk might approach their teaching as follows:

1. Emergent teacher: intervenes frequently and does not recognize how this impacts student to student talk. All talk is routed through the teacher. Corrects any use of non-academic language and/or demands all students speak only in English.

2. Developing teacher: intervenes selectively, but does so in a way that prioritizes the direction that the teacher wants to take discussion. Does not attend to missed opportunities to step in, when intervening would have taken discussion in a deeper direction. May correct students' use of non-academic language, but is mindful of the impact this may have on students.

3. Advanced teacher: intervenes in a reflective, intentional way, and is aware of the trade-offs for stepping in or stepping back at any given moment. Stepping in is guided by the priority of *putting students' ideas in conversation with each other,* rather than putting students' ideas in conversation with the teacher. This might involve noticing for moments to connect and validate students' ideas, or point out where ideas seem to be aligning or diverging, or summarizing when there's a lot on the table. Finds ways of incorporating students' preferred ways of speaking (non-academic language, languages other than English) into the conversation.

Attending to norms of talk. Some teachers may use *norms of talk* to establish some ground rules for how they want discussion to go. Common norms are having students "listen and respond respectfully"; "criticize ideas rather than individuals"; "assume best intent when listening, but also acknowledge when one's comments affect others"; and "maintain equity of voice." In a teaching simulation, a teacher might notice that talk is not aligning with how they believe productive discourse unfolds and may take a moment to remind the group of the classroom's talk norms.

Teachers along the continuum of attending to the norms of talk might approach their teaching as follows:

1. Emergent teacher: Norms don't exist, or simply function as demands on the part of the teacher ("don't talk over others!" "raise your hand!" "everyone needs to participate!"). The teacher primarily notices and attends to moments when their expectations for discussion are being violated. This predominantly takes the form of classroom management, rather than discussion facilitation.

2. Developing teacher: Classroom norms have been established, but are not enforced (e.g., students regularly interrupt each other even though there is a stated norm about this and teacher does not reinforce the norms). Or, there is inconsistency between how the teacher and the students interpret the norms (e.g., a student says, "That's what I said, hombre!" intending this to be a friendly remark and the teacher reminds the student about treating each other with respect.)

3. Advanced teacher: Classroom norms have been developed and are treated as shared agreements between teacher and students. The teacher and students both take steps to enforce norms and either agree on the norms or check in with each other about how they interpret them. Teacher also notices when norms are being attended to by certain groups of students but not others; for example, teacher may notice that male voices are dominating the discussion, and may respond to this by initiating conversation about the disparities in the ways certain voices are represented in class.

Attending to structures for talk. Noticing for discourse also means noticing the ways the number of students, the arrangement of desks, or certain discussion protocols impact how talk unfolds. For example, a small-group text discussion of five students will likely demand different attending, interpreting, and facilitating than a whole-class discussion. Furthermore, a protocol that requires students to speak a certain number of times might cause some students to feel pressure to speak.

One aspect of talk structures that may apply during the course of our simulations is *partner talk*, sometimes referred to as a *turn and talk* or a *pair-and-share*. This involves strategically pausing the flow of talk and asking students to discuss an idea in pairs. A number of issues might compel a teacher to pause: the discussion may be faltering, or the teacher may want to slow down the pace of a heated discussion. Alternatively, the teacher may sense that quieter students might benefit from a moment with a partner. In these instances, teachers may employ partner talk. A teacher might ask "So in your partnerships, what did you discuss?", and the discussion may then take a different, potentially more focused turn because the teacher chose to employ partner talk at a strategic moment.

Teachers along the continuum of attending to structures for talk might approach their teaching as follows:

1. Emergent teacher: Limited familiarity of the ways discussion structures, group size, and classroom configuration play a role in fostering discussion

2. Developing: Knows about different ways one can configure the classroom to facilitate discussion, but does not recognize how these different configurations can open up or close down space for students to participate - in other words, how some students may participate more or less depending on the size and configuration of the group

3. Advanced: Recognizes how certain discussion structures and sizes can affect student participation, and even attempts to fluidly employ shifts in structure (i.e., shifting from a 5-person discussion to partner talk, then back again) can propel discussion

Noticing for Equity

How We Define Equity and Social Justice

Equity involves structuring educational systems and removing barriers so that they are accessible to **all students**.A simple example of this might involve asking. the entire class to share their thoughts in a written space like a Google Doc and also inviting discussion as opposed to offering written participation to some students and verbal participation to others.

Social justice attempts to disrupt systemic racism by changing structures that cause racial inequities to persist. A teacher working towards social justice might address issues with how students are assigned to honors classes to ensure access to minoritized and might also address issues in her own classroom by pointing out that use of non-academic English in *Their Eyes are Watching God* enriches the story while connecting it to issues around the use of academic English in schools.

This project is concerned with supporting teachers to develop more equitable ELA classrooms by helping them notice when issues of equity arise so that they can address and disrupt them. A central goal of this work is to remove the "White gaze;" to structure lessons differently so that expectations are not centered around what is natural for White, neurotypical, middle class students whose dominant language is English.

What is noticing for equity and why is it important?

Teacher noticing is a widely researched phenomenon and is commonly defined as attending to features of classroom interactions during instruction, reasoning about what is observed, and planning next steps based on these observations (Jacobs, Lamb, & Philipp, 2010; Mason, 2002; Seidel & Stürmer, 2014; Sherin, Jacobs, & Philipp, 2011). Recent research has identified noticing for equity as particularly important for developing just schools. van Es et al. (2017) define noticing for equity as teacher attention to classroom structures that impact the extent to which different groups of students feel empowered to engage in classroom work. More recently, work conducted by members of our study team focuses more specifically on efforts to disrupt power structures that oppress minoritized students (Patterson Williams, Athanases, Higgs, & Martinez, 2020; Patterson Williams, Higgs, & Athanases, 2020).

Our approach to Mursion scenarios that support noticing for equity mirrors this focus on the experiences of students from nondominant communities. Following Patterson Williams et al. (2020), we include issues of race, history, language, and justice in noticing for equity. Because students are often viewed as less academically competent when they incorporate their racial and/or linguistic identities into their approach to school (Flores & Rosa, 2015; de los Rios et al., 2019), teachers must play an active role in addressing these inequities by working towards long-term changes that disrupt status quo learning environments. The aim of *noticing for equity* therefore involves sustained efforts to change educational structures in ways that not only value and celebrate varied ways of knowing and making sense of the world but also intentionally resist expectations that dictate particular ways of thinking and knowing as more or less valuable. This critical, humanizing approach acknowledges and questions approaches that center educational experiences around the contributions of White authors and the experiences of White people. In doing so, it opens up possibilities for the entire classroom community to question their assumptions about what counts as academic work or as work that makes a meaningful contribution to society.

Key to this is teacher work to develop an *inner witness* through intentional, ongoing self-observation efforts to notice issues of equity in teaching (Mason, 2011; Patterson Williams, Athanases, Higgs, & Martinez, 2020). This inner witness informs how teachers interpret classroom interactions; making sense of what is observed, and using it to make decisions (Patterson Williams, Higgs, & Athanases, 2020). When this inner witness is oriented towards *equity*, teachers center *race, language, history,* and *justice* in their understanding of students, inquiring into the ways their backgrounds, learning opportunities, and school and community histories influence their experience of the classroom (Patterson Williams, Athanases, Higgs, & Martinez, 2020; Winn, 2018).

Teachers who notice for equity therefore examine how their own backgrounds affect their interpretation of the world and their teaching practice. They trust and value diverse students' ways of learning, and they seek to understand students' thinking by eliciting it through dialogue. They highlight the ways in which power structures associated with minoritized status affect the ways in which we interpret a text. And they explore with students the ways a collective noticing for equity propels meaningful societal change.

Dimensions of noticing for equity

We have identified four dimensions of noticing for equity--language, race, history, and justice--that are particularly salient to our work with teachers who work in diverse secondary English language arts classrooms. We define these dimensions next and provide examples of how teachers who notice for equity might enact each dimension in their practice**.**

How is *language* used and valued in ELA discussions?

Language is central to sensemaking in ELA. Oral discussion of text is a key approach used to extend and deepen student interpretations of things they have read and written. It is therefore crucial that varied manners of expression are embraced to lift up the intellectual contributions of all students. Teachers should be aware that some students may be excluded from contributing to class discussions because they do not feel empowered to bring their own language(s) to the table. Teachers who notice for equity attend to and value ideas shared through non-dominant modes of expression; they avoid dismissing ideas presented using "unacademic" language; and they actively strive to transform norms of language use with their students. Doing so helps foster environments where all sentiments are assumed to present a valuable connection to the topic at hand.

We have adapted Martinez et al (2019)'s recommended approaches as signals that teachers notice for language:

- Valuing multilingualism. Do teachers notice when students make meaning using a language other than academic English? Do they reinforce multilingualism as a valuable tool for expressing ideas when students make these moves? Do teachers speak languages other than English if they can to further reinforce the message that multilingualism is valued?

- Acknowledging that language is political. Do teachers take opportunities to discuss the politics of language with youth? Do teachers communicate that students are capable of having difficult conversations and encourage them to grapple with and debate their stances during discussions?

- Reinforcing the value of all linguistic forms. Do teachers acknowledge when students use slang or youthspeak that they are unfamiliar with and ask students to teach them about these linguistic forms?

That is, teacher noticing for language centers on the ways in which teachers take up and respond to students' multilingual abilities, including their use of languages other than English, English dialects, slang, and youthspeak.

We use the poem *Legal Alien* to provide an example of how teachers might notice for language. While discussing the poem, a student might refer to the Spanish line "Me'stan volviendo loca" which translates to "they're driving me crazy" to comment that multilingualism can also be a superpower used to communicate differently with different people. Teacher responses might include:

1. Emergent teacher: ignores the use of Spanish. May affirm or deny the student's statement without exploring what they student is trying to say.

2. Developing teacher: asks the student to share what the Spanish term means, but does not extend the discussion beyond having the student provide a translation.

3. Advanced teacher: asks for a translation and for an explanation of how the use of Spanish changes the conversion from simply asking "How's life?," might also explore the ways in which multilingualism is a superpower.

How is *race* explored in ELA discussions?

Noticing for equity along the lines of *race* requires teachers to directly acknowledge the racial dynamics at play in a given situation, to understand the local and global contexts behind interactions. Teachers must also equip themselves for direct conversations about race and racialized relationships, and to actively address potential harm in learning communities. These skills are paramount toward creating spaces where all students feel like equal partners in learning.

Racial dynamics surface in myriad ways. While everyday linguistic interactions can point to racialized identities and other forms of racism (Flores & Rosa, 2015), explorations in literature can also provide opportunities for students to gain deeper insight into the experiences of people with differing identities while also exploring how race and racism affect their lived experiences. Teachers and students benefit when teachers are equipped to handle racial dynamics. Adopting a racial lens in noticing for equity helps teachers to reflect on how their own identities affect their interpretations and actions, and empowers them and their students to enact changes that make schools places where everyone thrives.

We have identified the following pedagogical approaches as indicators that teachers notice for race:

- Explicit attempts to elicit conversation around identity. Did teachers adapt their instruction in response to unexpected student comments and/or to redirect students to extend into issues of identity, reaching beyond discussions of literary devices?

- Teacher acknowledgement when students raise issues related to race or ethnicity. Do teachers ask students to elaborate or clarify their thinking when they raise issues related to race?

- Building on opportunities to discuss race. Do teachers respond to student comments or questions that raise issues of race in relation to: (a) texts that tell the story and experiences of oppressed people, or (b) clearly racialized experiences in texts? Do teachers follow up on these conversations by offering additional resources to provide context (e.g., examples of how race plays out in

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today's world, other literature that addresses a similar topic with a different viewpoint or perspective?)

We use the poem *Legal Alien* to provide an example of how teachers might approach their teaching with respect to noticing for race. While discussing the line, "American but hyphenated" teachers might explore the idea of what it means to not be American "enough". Teacher responses might include:

1. Emergent teacher: invites students to discuss what it means to be American and who counts as American without addressing issues of some people assuming that all Latinx people are immigrants.

2. Developing teacher: discusses aspects of the Mexican American experience referenced in the poem - for example inviting students to also interpret the lines "viewed by Anglos as perhaps exotic, perhaps inferior, definitely different" and connecting the idea of being treated as different or inferior with views on immigration. (e.g., "Why do you think the author feels that being Mexican American is associated with not being fully American? Why might he think Anglos see him as exotic, inferior, different?")

3. Advanced teacher: explicitly connects the lines mentioned above to student experiences (e.g., being told to "go back to Mexico", parents being asked if they had their kids in the US) or to current events (e.g., claims that immigrants are criminals, reasons for immigration, "successful" Mexican Americans, treatment of children at the US/Mexico border).

How is *history* used to contextualize ELA discussions?

Students, teachers, schools, and communities all have associated histories. Historical backgrounds shape ideologies, viewpoints, and classroom interactions. Teachers must reflect on the ways in which their own history has shaped their interpretations of classroom interactions while also supporting students in exploring the ways in which histories are inflected in a discussion. Such an exploration of history should deepen students' understanding of why the world is the way it is, help them reflect on efforts that could make the world more equitable, and discuss history in a way that allows students to feel safe, comfortable, and capable of contributing to the classroom environment.

We have identified the following approaches as indicators that teachers notice for history:

- Noticing who is participating in discussions of race. Do teachers notice who decides to participate in or to abstain from discussion around race?

- Explicit attempts to elicit conversation about political, community, or personal histories. When students discuss an incident in a text, do teachers ask students to identify ways in which a character's history influenced that incident? Do they ask students to tie a character's history and decision making to how their own histories affect their choices? To how their community's history affects their choices?

- Teacher acknowledgement when students raise issues related to history. Do teachers ask students to elaborate or clarify their thinking when students make unsolicited connections between the text and the histories of characters or communities?

- Highlighting the histories of minoritized groups. Do teachers address history when students ask questions about a text that addresses the experiences of oppressed people? Do teachers use student comments about this history to expand the discussion to institutionalized racism? Do teachers share additional resources with students to provide historical context to a reading?

- Explaining the effect of history on an inner witness. When students have different interpretations of a text, do teachers ask them to explore how the same passage could be interpreted in multiple ways depending on the reader's history?

We use the poem *Legal Alien* to provide an example of how teachers might notice for history. While discussing the line, "American but hyphenated" teachers might explore the idea of what it means to not be American "enough". Teacher responses might include:

1. Emergent teacher: might ask students to discuss what they know about the history of immigration without explicitly drawing connections between history and the poem.

2. Developing teacher: explicitly references past events in which Mexican Americans were othered to make sense of the poem and/or to encourage students to relate their personal histories to how they analyze the poem. "What experiences have you had that have shaped your beliefs about immigrants?"

3. Advanced teacher: explicitly frames history as a lens through which one can understand interactions within a text, the classroom, or the outside world. Invites students to explore how people with differing understandings of history might interpret the poem differently. (e.g., how might Mexicans whose homes were annexed into the US after the Mexican-American war feel "American but hyphenated? Migrant farm workers today? Richard Cavazos, first Mexican-American four star general?)

How is *justice* explored in ELA discussions?

Noticing for justice is concerned with taking action "so that all children and their families receive justice in the form of access to high quality teaching and learning opportunities." (Winn, 2018, p. 37). It requires teachers to reflect on inequities and to decide how to address them in the moment and also in a manner that leads to sustained change.

As such, noticing for justice is the culminating goal of noticing for equity as it pertains to the experiences of minoritized students. It requires teachers to be vigilant and unrelenting in their efforts to not only address issues of race, history and language as they arise in instruction but also to systematically work to dismantle educational structures that give rise to inequities. This work includes helping students to address inequities: within a classroom, school, or within a larger educational system.

We have identified the following approaches as indicators that teachers notice for justice:

- Explicit attempts to engage with students around ways to make schools or the world around them more equitable. Does the teacher respond to student worries that a situation is unfair by fostering discussion around possible steps to take to address an inequity? Do they ask students how we might all work to eliminate barriers to full participation in ELA discussions, in school, and/or the world at large?

- Making changes to foster a safe, inclusive environment. Does the teacher make changes based on students' recommendations? Do they support students in enacting change themselves?

- Developing an inner witness. Does the teacher reflect on their own role in supporting or reducing inequities? Do they make changes (in the moment or to instructional structures) in response to these reflections? Do they seek out resources to support and sustain change?

- Acknowledging how positionality affects perceptions of justice. When students raise issues of fairness, does the teacher model how to reflect on the ways in which personal experiences affect beliefs that situations are just or unjust? Do they ask students to explore how their own positionality affects their interpretation of controversial events?

The poem *Legal Alien* provides an example of how teachers might notice for justice. While discussing the line, "A handy token" teachers might address what it means to be tokenized and the way that plays out in different aspects of our society. Teacher responses might include:

1. Emergent teacher: might focus on the definition of tokenized and how it plays out in the world.

2. Developing teacher: might build upon providing the definition of "tokenized" by asking how this definition and the use of the term "handy token" relates to the rest of the poem.

3. Advanced teacher: asks students to reflect upon how different experiences might cause you to be able to identify when someone is being tokenized and how they might act when people are being othered.

Noticing for Equity in Teaching Simulations

These dimensions of language, race, history, and justice are all aspects of noticing for equity that we will target in developing teaching simulations that elicit teacher problem solving. In reality, classroom interactions are unlikely to target only one aspect of noticing. We specify the ways in which dimensions could interact in a given situation next. The first example is from our Mursion pilot in which Davy voices struggles with her name. The second example is one in which a student laughs at an emergent bilingual student's pronunciation of a word. The final example involves a student calling a food from another culture that is described in a literary text "gross."

Moment 1

Event: After introductory discussion of a section of a text where a character talks about her name, Davy raises her hand and says, "I don't like my name. It sounds so Cambodian. I wish it were more normal, like Amanda. People say it wrong, they think it's a boy's name."

Commentary: In this moment, Davy is feeling pressure to be seen as "normal." She raises issues with how her name doesn't "sound" American, that it's gender-ambiguous in an American context, and that it's difficult to pronounce. She also points specifically to her Cambodian heritage, which seems to compete with her American identity. Generally, Davy feels that her name is less accessible than the names of the rest of the students in the class.

Possible Teacher Responses Along Target Dimensions:

Language: The statements about sound and pronunciation open direct opportunities for teachers to acknowledge the mechanics and logistics of Davy's name. Teachers also have opportunities to address the meaning of 'normality' in relation to language and power.

History: Teachers may tap into histories of assimilation to address Davy's discomfort here by sharing stories of how people ended up with Americanized names, including the pressures that cause people to decide to change their names or instances in which educators decide to rename their students.

Race: Davy mentions specifically that her name is Cambodian. This may open opportunities for teachers to bring cultural and racial knowledge into the discussion, including opportunities for Davy to share information about Cambodian culture.

Justice: Ridiculing students' names is a common problem in schools, as is unintentionally othering students by mispronouncing their names. This discussion may present teachers with an opportunity to address how to approach situations in which people's names are mocked or mispronounced.

Moment 2

Event: An emergent bilingual student is referencing text to make a valuable contribution to the discussion, but reads haltingly and pronounces several words unconventionally. Another student audibly laughs. The student stops reading and shuts down.

Commentary: Internally, the student feels ashamed of the way they read the passage. This points to a notion of a "right" and "wrong" way to speak English (e.g. ways to pronounce words or specific acceptable accents). This narrative is bolstered by the other student's laugh. The student had a valuable contribution to make, but was barred from doing so because of the challenges presented by language.

Possible Teacher Responses Along Target Dimensions:

Language: The student is struggling with mechanical aspects of language. This may prompt teachers to help them through the passage, to address how language is a living, constantly evolving thing in which new words are often adopted from other languages and in which pronunciation changes over time, or to ask the student to use words from their native language to aid in their contribution.

History: The narrative of a "right" and "wrong" way to use English to contribute to a discussion may have roots in historical conventions. This may prompt teachers to discuss the histories associated with people using language to oppress others (for example, prohibiting slaves from communicating in languages other than English, the disappearance of many Native American languages when the US government forced children into boarding schools designed to distance children from their culture, etc.).

Justice: There is inequity in this moment because the student was unable to make their contribution to the discussion. This may prompt teachers to reiterate classroom norms (e.g. "It is not OK to laugh at a student trying to make a contribution. We use multiple languages to communicate in this classroom"), to provide more accessible English material to the class, or to formally adopt policies in support of translanguaging in the classroom/advocate for the use of translanguaging throughout a school or school district.

Moment 3

Event: While discussing a piece of text that describes the process used to make dumplings, Student A shares that they make dumplings in this way at home. Student B interjects, saying, "That sounds gross - do all [applicable ethnicity] families do that?" Student A responds, "That's racist." Student B says, "I'm not racist, that just sounds gross. But maybe I'm just a picky eater - there are a lot of American foods I don't like too."

Commentary: Racial and cultural dynamics are at play here. Student A shares a practice with the class based in their racial and cultural background, and Student B writes the practice off as gross (i.e. undesirable, or lesser in some way). Student A explicitly takes this as an instance of racism because they feel that their food has a substantially higher chance of being labeled as "gross" in the dominant culture here. Student B does not frame it this way; instead, they defend themself as "not racist," and justify this by likening their dislike of Student A's food to their dislike of certain stereotypically American foods. However, Student B suggests that there is something monolithic and racially "inherited" about the foodways of a particular group and negatively evaluates it, a clearly racist comment.

Possible Teacher Responses Along Target Dimensions:

Race: The teacher might reprimand Student B for saying something racially insensitive, open up a discussion by asking Student A why they think this is racist, or discuss how many people find aspects of other people's culture unusual at first but then find things that they appreciate about it.

History: The teacher might introduce additional literature in which food is used to communicate about the experiences of the characters (e.g., *Interpreter of Maladies*)

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and/or is central to exploring issues of race or ethnic identity. Or they might explore the history associated with how food evolves over time or is combined (e.g. Fusion) to enrich the lives of people from multiple cultures.

Justice: The teacher might teach a lesson on microaggressions, revisit norms for behavior, or explore issues related to working together that focus on skills for repairing harm, respecting others viewpoints/accepting that harms can be committed unintentionally and must still be addressed, or other aspects of being empathetic community members necessary for contributing to your larger community.

References

Criswell, B., & Krall, R. M. (2017). Teacher noticing in various grade bands and contexts: Commentary. In *Teacher noticing: Bridging and broadening perspectives, contexts, and frameworks* (pp. 21-30). Springer, Cham.

de los Ríos, C. V., Martinez, D. C., Musser, A. D., Canady, A., Camangian, P., & Quijada, P. D. (2019). Upending colonial practices: Toward repairing harm in English Education. *Theory Into Practice*, *58*(4), 359-367.

Duan, C. (2017) "Your Mom Tells You to Stop Writing About Race." *I Wore My Blackest Hair,* New York: Little A Publishing.

Flores, N., & Rosa, J. (2015). Undoing appropriateness: Raciolinguistic ideologies and language diversity in education. *Harvard Educational Review*, *85*(2), 149-171.

Goldman, S.R., Britt, M.A., Brown, W., Cribb, G., George, M., Greenleaf, C., Lee, C.D., Shanahan C., & Project READI (2016). Disciplinary Literacies and Learning to Read for Understanding: A Conceptual Framework for Disciplinary Literacy. *Educational Psychologist*, 51(2), 219-246.

Jacobs, V. R., Lamb, L. L., & Philipp, R. A. (2010). Professional noticing of children's mathematical thinking. *Journal for research in mathematics education*, *41*(2), 169-202.

Martinez, D. C., Rojo, J., & González, R. A. (2019). Speaking Spanish in white public spaces: Implications for literacy classrooms. *Journal of Adolescent & Adult Literacy*, *62*(4), 451-454.

Martinez, D. C., & Caraballo, L. (2018). Sustaining multilingual literacies in classrooms and beyond. *Journal of Adolescent & Adult Literacy*, *62*(1), 101-104.

Mason, J. (2002). *Researching your own practice: The discipline of noticing*. New York: Routledge.

Mason, J. (2011). Noticing: Roots and branches. In M. G. Sherin, V. R. Jacobs, & R. A. Philipp (Eds.), *Mathematics teacher noticing: Seeing through teachers' eyes*, (pp. 65-80). Routledge.

Mayer, R. E. (2012). Information processing. In K. R. Harris, S. Graham, T. Urdan, C. B. McCormick, G. M. Sinatra, & J. Sweller (Eds.), *APA educational psychology handbook, Vol. 1. Theories, constructs, and critical issues* (pp. 85–99). American Psychological Association.

https://doi.org/10.1037/13273-004

McDuffie, A. R., Foote, M. Q., Bolson, C., Turner, E. E., Aguirre, J. M., Bartell, T. G., ... & Land, T. (2014). Using video analysis to support prospective K-8 teachers' noticing of students' multiple mathematical knowledge bases. *Journal of Mathematics Teacher Education*, *17*(3), 245-270.

Patterson Williams, A. D., Athanases, S. Z., Higgs, J. M., & Martinez, D. C. (2020). Developing an inner witness to notice for equity in the fleeting moments of talk for content learning. *Equity & Excellence in Education*, *53*(4), 505-518.

Patterson Williams, A. D., Higgs, J. M., & Athanases, S. Z. (2020). Noticing for equity to sustain multilingual literacies. *Journal of Adolescent & Adult Literacy*, *63*(4), 457-461.

Rabinowitz, P.J. (1987). *Before Reading: Narrative Conventions and the Politics of Interpretation*. Ithaca, NY: Cornell University Press.

Rainey, E.C. (2017). Disciplinary Literacy in English Language Arts: Exploring the Social and Problem-Based Nature of Literary Reading and Reasoning. *Reading Research Quarterly,* 52(1), 53-71.

Rosenblatt, L. (1978). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale: Southern Illinois University Press.

Roller, S. A. (2016). What they notice in video: A study of prospective secondary mathematics teachers learning to teach. *Journal of Mathematics Teacher Education*, *19*(5), 477-498.

Scheiner, T. (2021). Towards a more comprehensive model of teacher noticing. ZDM Mathematics Education, 53(1), 85–94. doi: 10.1007/s11858-020-01202-5
Seidel, T., & Stürmer, K. (2014). Modeling and measuring the structure of professional vision in preservice teachers. *American Educational Research Journal.* doi:10.3102/0002831214531321

Sherin, M. G., Jacobs, V. R., & Philipp, R. A. (Eds.). (2011). *Mathematics teacher noticing: Seeing through teachers' eyes.* New York: Routledge

van Es, E. A. (2009). Participants' roles in the context of a video club. *The Journal of the Learning Sciences*, *18*(1), 100-137.

van Es, E. A. (2011). A framework for learning to notice student thinking. In *Mathematics teacher noticing* (pp. 164-181). Routledge.

van Es, E. A., Hand, V., & Mercado, J. (2017). Making visible the relationship between teachers' noticing for equity and equitable teaching practice. In *Teacher noticing: Bridging and broadening perspectives, contexts, and frameworks* (pp. 251-270). Springer, Cham.

Winn, M. T. (2018). *Justice on both sides: Transforming education through restorative justice.* Harvard University Press.