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How Might Teach For America Define and Identify "High-Impact" Teachers in Michigan? A Literature Synthesis

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How Might Teach For America Define and Identify "High-Impact" Teachers in Michigan? A Literature Synthesis

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How Might Teach For America Define and Identify "High-Impact" Teachers in Michigan? A Literature Synthesis

Researchers have long demonstrated that the most important school-level factor related to student outcomes is high-quality, effective teaching (Aaronson et al., 2007; Chetty et al., 2014a; Rivkin et al., 2005; Rothstein, 2014; Sanders & Rivers, 1996). Teachers matter in terms of shaping both short- and long-term student outcomes (Chetty et al., 2011; Chetty et al., 2014b; Rivkin et al., 2005; Rothstein, 2014; Sanders & Rivers, 1996). While it is evident that teachers vary substantially in their effectiveness (Rivkin et al., 2005; Rockoff, 2004), identifying which teachers are most likely to be effective educators is complex and multifaceted (Jacob & Lefgren, 2007; Weisberg et al., 2009). This problem has been deemed "the mystery of good teaching" (Goldhaber, 2002, p. 50) and referred to as education's "quarterback problem" in which determining which teachers will be most effective in the classroom parallels the problem of identifying which college quarterbacks will ultimately succeed in the NFL (Gladwell, 2008, para. 13).

Researchers have noted that high-performing teachers are unevenly distributed across schools. Teachers seen as more effective and those with more experience often transfer to higher-performing schools in more advantaged communities (Clotfelter, 2001; Feng & Sass, 2018; Imazeki, 2005). It is also important to recognize that teachers' ability to positively impact outcomes involves consideration of which students the teacher serves (e.g., students in accelerated college preparatory courses or students in credit recovery programs designed to prevent dropout, English learners or non-English learners) and educational context (e.g., well-resourced suburban schools or poverty-dense schools) (Adamson & Darling-Hammond, 2012; Lankford et al., 2002; Loeb et al., 2014; Milner & Laughter, 2015). In other words, there is an element of

match that is linked to positive student outcomes, both in terms of teacher-student and teacher-school matches.

As we explore what makes a "high-impact" teacher, it is worth noting that research defines and measures teacher impact in many ways. For example, it is often measured by students' academic outcomes on high-stakes standardized tests (Darling-Hammond, 2000; Jackson et al., 2014; Kane & Staiger, 2008). However, researchers have also measured teacher impact using longer-term outcomes, like college attendance and salary (e.g., Chetty et al., 2011). In recent years, what it means to be a high-impact teacher has arguably broadened to include other student outcomes such as dropout prevention (e.g., Bost & Riccomini, 2006; Quin, 2017), outcomes for English learners (e.g., Gersten et al., 2005; Loeb et al., 2014; Master et al., 2016), and social-emotional outcomes (e.g., Kraft, 2019).

In this literature synthesis we consider how teacher impact is defined in the research literature and evidence surrounding links between teacher inputs and meaningful educational outcomes. We begin by providing a background on how teacher quality and teacher effectiveness have been gauged historically. Given TFA's interest in focusing on *high-impact* teachers, we then consider the research literature that connects teacher qualifications and practices to meaningful student and organizational outcomes. The following questions guide our review:

1. What outcomes are central for today's students and schools?
2. What teacher qualifications and teaching practices are linked to these outcomes?
3. How might TFA observe these qualifications and practices in fellowship applicants?

Throughout this synthesis, we give special consideration to the research on teachers who promote positive outcomes in poverty-dense schools and communities.

BACKGROUND: GAUGING TEACHER QUALITY AND EFFECTIVENESS

For many years, there was a heavy reliance on easily observable teacher inputs to gauge teacher quality and make hiring decisions (Goe, 2007). These easy to ascertain inputs include teacher qualifications such as teaching experience, certification/credentialing, education level and area of study, and teacher test scores (Clotfelter et al., 2010; Rivkin et al., 2005). To some extent teacher quality was also determined based on some teaching processes, such as instructional practices, classroom management, and engagement with students and families.

However, research linking teacher qualifications to student outcomes is often inconsistent or has rather small effects (Rivkin et al., 2005). In other words, "the relationship between easily measurable attributes—such as a teacher's highest degree attained or level of experience—and student outcomes is tenuous at best" (Goldhaber, 2002, p. 52). Similarly, relying on teacher evaluation observation instruments designed to gauge teaching practices and processes has been found to be problematic since teachers are overwhelmingly rated effective or highly effective using these instruments. For example, in 2021-22, 99 percent of Michigan teachers fell into one of these two categories (Michigan Department of Education, 2023). Therefore, they do not clearly differentiate between teachers who employ more or less effective practices in their classrooms (Jacob & Lefgren, 2007; Weisberg et al., 2009).

Research on Teacher Quality

Several teacher qualifications have traditionally been used to ascribe teacher quality: experience, certification and licensure, and education background. These are characteristics that are initially presented at the onset of the hiring or screening process, and thus tend to be associated with educational background or previous employment, in teaching and otherwise. Research linking teacher qualifications to student outcomes is often inconsistent or has small effects (Goldhaber, 2002; Rivkin et al., 2005). An important exception to this trend is teacher experience, an area where a more robust research base demonstrates a clear link between time spent in the classroom and improved student outcomes.

Teaching Experience

Teaching experience is one of the strongest readily observable teacher characteristics linked clearly and consistently with positive student outcomes. Some studies describe the importance of the first few years of teaching (Harris & Sass, 2011; Rivkin et al., 2005; Rockoff, 2004), whereas others argue that there are meaningful gains to experience throughout a teacher's career (Papay & Kraft, 2015; Wiswall, 2013).

Returns to teaching experience are well documented in the research literature. For example, Rockoff (2004) and Boyd et al. (2008) used panel data from two New Jersey school districts and from the state of New York, respectively, to test the relationship between experience and test scores in reading and math. Their studies suggest substantial returns to teaching experience for early-career educators especially in students' reading scores, but these returns diminish after teachers' first few years in the classroom. Additional research affirms this finding and emphasizes the first year of teaching results in the most significant gains in teacher effectiveness but that additional years of experience are meaningful up until the third year of teaching (Harris & Sass, 2011; Rivkin et al., 2005). Additionally, Harris and Sass (2011) found that experience is most relevant in elementary school, and while important in middle and high school, the gains to student achievement do not appear to be as great. In sum, these studies suggest that the first few years give new teachers necessary real-life

exposure to teaching, allowing them to quickly hone their teaching skills, as well as act to filter out new teachers who may not be well suited to teaching.

Although earlier studies asserted that teacher effectiveness improves little after the first few years in the classroom, more recent work provides evidence that teachers continue to improve well into their careers (Harris & Sass, 2011). For example, using data from North Carolina, Wiswall (2013) confirmed that the first years of teaching are the most important, but argued that the extent to which returns to teaching experience diminish over time has been exaggerated in previous studies and that there are still significant gains beyond the early career stage. Similarly, Papay and Kraft (2015) tested the impact of teacher experience using data from a large urban school district that includes approximately 100,000 students. Using the same statistical modeling approaches used in prior research, they confirmed the results of previous studies, demonstrating that the first five years of teaching are most important in terms of improving teacher effectiveness. However, using updated modeling techniques, they found that teachers continue to improve beyond these initial years of teaching albeit at a slower rate, with approximately 50 percent of a teacher's productivity improvement occurring during the first five years of teaching and the remaining 50 percent of improvement over the rest of their career. Continued improvement was especially evident in mathematics.

Beyond the robust quantitative research on returns to teaching experience, qualitative studies similarly demonstrate the strong connection between teaching experience and teacher effectiveness. For example, in a study that followed 12 teachers over several years, researchers found that many teachers recognized increased confidence and improved pedagogical skills after they had spent several years in the classroom, concluding "the most influential time period for growth in intellectual development occurred after the teachers left the university" (Cady et al., 2006, p. 303). Taken together, the research suggests a strong and consistent relationship between teacher experience and student outcomes.

Teacher Certification and Licensure

Teacher certification has long been seen as an important indicator of teacher quality. NCLB elevated the importance of certification during the teacher hiring process when the legislation indicated that possessing full state certification/licensure was a mandatory component of being considered a "highly-qualified" teacher. Despite the emphasis on teacher certification in federal law, research on the connection between teacher certification and student outcomes is decidedly mixed. While some studies conclude that there is little difference in the quality of teachers from different certification backgrounds (Aaronson et al., 2007; Croninger et al., 2007; Kane et al., 2008), others find that in certain educational settings, certification is a relevant factor (Chingos & Peterson, 2011; Clotfelter et al., 2010; Darling-Hammond et al., 2005; Rockoff et al., 2011).

A mixed methods report from the Center for the Study of Teaching and Policy examined policies across all 50 U.S. states and found, among other indicators, certification status is a meaningful signal for teacher effectiveness. In particular, teachers with state certification in middle and high school math perform better than teachers without any certifications (Darling-Hammond, 1999). In a later paper, Darling-Hammond and colleagues (2005), concluded that teachers who completed traditional certification programs performed better than those from other certification backgrounds (one exception to this finding was TFA corps members, who had significant and positive impacts on math but not reading test scores).

Additional research has taken a more nuanced look at the relationship between teacher certification and student outcomes. Researchers have demonstrated that the relationship between certification and achievement varies by subject area of certification. For example, math certification has been shown to improve math achievement outcomes (Betts et al., 2003; Goldhaber & Brewer, 2000; Wayne & Youngs, 2003) especially in high school (Rice, 2003), whereas English teachers with English certification do not appear to perform differently than uncertified English teachers in terms of achievement outcomes (Clotfelter et al., 2010). Furthermore, teachers from alternative licensure programs initially perform worse than those from traditional pathways, but with additional teaching experience, this gap diminishes (Clotfelter et al., 2010; Kane et al., 2008).

Overall, the research comparing the impact of different forms of certification is mixed. Key exceptions to this include the particular importance of math certification in middle and high school for math achievement outcomes and the finding that teachers from alternative certification pathways do not tend to perform as well as their peers from traditional certification pathways, though there is evidence that teaching experience can help bridge this gap.

Higher Education Background

Information about higher education background is often used to gauge teacher quality. However, commonly scrutinized education background characteristics, such as advanced degree attainment and degree field, may not necessarily be associated with improved student outcomes (Clotfelter et al., 2006, 2010; Croninger et al., 2007; Darling-Hammond, 1999; Harris & Sass, 2011; Rivkin et al., 2005). The research surrounding teachers with advanced degrees yields varying and rather nuanced results. In terms of variation, some research suggests that students who have teachers with master's degrees do indeed outperform their peers who have teachers with bachelor's degrees in terms of reading achievement (Curry et al., 2018). Other research suggests advanced degrees do not result in better outcomes for students. For example, perhaps counterintuitively, one study concluded that on average students who have a teacher with a bachelor's degree outperform their peers who have teachers with a PhD (Clotfelter et al., 2010). Additionally, the research findings on the relationship between advanced degrees and student outcomes is often quite nuanced. For example,

researchers have shown that teachers with master's degrees obtained prior to teaching are associated with little to no improvement in teacher effectiveness, however, teachers who earn master's degrees after beginning teaching may perform better (Clotfelter et al., 2010; Harris & Sass, 2011). The lack of clarity within the research literature on advanced degrees makes it difficult to act on.

Another group of studies has sought to disentangle the relationship between teachers' majors and student outcomes. An often-cited report for the Center for the Study of Teaching and Policy discussed the importance of teachers having a degree in the same field in which they teach (Darling-Hammond, 1999), but more recent studies have complicated this finding. When it comes to elementary school, teachers with elementary education degrees outperform their peers with non-elementary education degrees in terms of student achievement (Chingos & Peterson, 2011; Croninger et al., 2007). However, in middle school, another study found that neither college major nor coursework in math or reading was a significant determinant of student achievement (Harris & Sass, 2011). Taken together, these studies point to the importance of putting elementary teachers in settings aligned with their expertise and training, however, this relationship becomes more complicated in middle and high school settings.

Traditional measures of teacher quality are less connected than we might imagine with the exception of teaching experience. The more time teachers spend in the classroom, the better the student outcomes, with gains most pronounced in the first five years of a teacher's career but continuing to improve beyond this time. Given the clear and positive link between teaching experience and student outcomes, working to recruit and retain experienced teachers should be a central tenet of efforts to improve teaching quality in high-need school and district settings.

Research on Teacher Effectiveness

Decades ago, researchers began to document what many already knew: there are meaningful differences in student achievement gains across different teachers' classrooms (Hanushek, 1971; Murnane & Phillips, 1981). It was not until the implementation of the No Child Left Behind Act (NCLB) in the early 2000s that there was a widespread shift toward not only using traditional teacher inputs to gauge teacher quality but also focusing on student outcomes and teacher effectiveness. Goe (2007) aptly captures the distinction between teacher quality and teacher effectiveness: "teacher qualifications, characteristics, and practices are all used to define teacher quality and exist independently of student achievement, whereas teacher effectiveness is wholly dependent on student achievement. In other words, teacher effectiveness cannot be determined without outcomes such as standardized test scores" (p. 13)

This shift toward teacher effectiveness was not only fueled by the emphasis on student performance in federal legislation, but also by two other developments. First, several states and large school districts had begun to assemble large longitudinal

administrative datasets linking students to teachers that allowed for the estimation of teacher effectiveness in terms of students' academic achievement on standardized tests. Second, new advances in value-added modeling (VAM) placed emphasis on teachers' contributions to student growth as opposed to simple measures of proficiency that do not account for differences in students' prior achievement (McCaffrey et al., 2003; Sanders & Horn, 1998).

Research has found a consistent and meaningful impact of teacher effectiveness on many student achievement outcomes. Earlier work in this area estimated teacher effects across multiple studies to capture an average of 0.11 standard deviations for reading and 0.15 standard deviations for math (Hanushek & Rivkin, 2010). In other words:

> *…the math results imply that having a teacher at the twenty-fifth percentile as compared to the seventy-fifth percentile of the quality distribution would mean a difference in learning gains of roughly 0.2 standard deviations in a single year. This would move a student at the middle of the achievement distribution to the fifty-eighth percentile. The magnitude of such an effect is large both relative to typical measures of black-white or income achievement gaps of 0.7-1 standard deviation and compared to methodologically compelling estimates of the effects of a ten-student reduction in class size of 0.1-0.3 standard deviations. (Hanushek & Rivkin, 2010, p. 268)*

More recent work has extended this literature to show that teacher effectiveness not only impacts achievement outcomes but more distal outcomes in adulthood. For example, Raj Chetty and colleagues' (2014b) frequently cited study found that students taught by high value-added teachers are more likely to attend college and earn more. They note, "Replacing a teacher whose VA is in the bottom 5 percent with an average teacher would increase the present value of students' lifetime income by approximately $250,000 per classroom" (p. 2633). This study also showed greater teacher effectiveness leads to a reduced likelihood of having a child as a teenager and a higher likelihood of both living in higher-quality neighborhoods (as measured by the percentage of college graduates in the zip code) and participation in 401K retirement savings plans. In sum, this literature highlights the potential teachers have to meaningfully enhance the lives of their students well beyond the bounds of test scores.

While there is a robust research literature demonstrating the importance of teacher effectiveness in determining both school and adulthood outcomes, using VAMs to determine the quality of teaching is not without its drawbacks. First, these approaches do not shed any light on what teaching practices are in fact connected to better student outcomes so they do little to inform teacher training or professional development. Second, value-added models can only be estimated for teachers in grade levels and subjects with annual testing, which amounts to only around 25 to 30 percent of K-12 teachers (Amrein-Beardsley, 2014; Kane et al., 2011). Third, value-

added models have come to be viewed with derision by many teachers, unions, and researchers due to their use in what Amrein-Beardsley terms a "Measure and Punish Theory of Change" (p. xiv) in education. These criticisms have often resulted in states eliminating or reducing the weight of value-added measures in teacher evaluations (Loewus, 2017) and making it more challenging to link students to specific teachers in administrative data systems.

CURRENT CONSIDERATION: WHAT DOES IT MEAN TO BE A HIGH-IMPACT TEACHER TODAY?

TFA has specifically chosen to focus on "high-impact" teachers for the TeachMichigan fellowship program. While the idea of being a high-impact teacher is certainly connected to both high-quality and highly effective teachers, it is distinct in several ways. Identifying high-quality teachers has traditionally relied heavily on easily observable teacher characteristics discussed above. The shift toward highly effective teachers introduced an emphasis on student outcomes, specifically academic achievement. TFA's focus on high-impact teachers suggests both a) a focus on not only teacher inputs but also concrete student outcomes, and b) outcomes that extend beyond student achievement. Defining what it means to be a high-impact teacher therefore hinges on determining which outcomes are most important for today's students and schools. The literature suggests four categories of outcomes are central to consider:

I. Academic outcomes
II. Personal quality outcomes
III. Educational opportunity and equity outcomes
IV. Organizational improvement outcomes

Below, we provide a definition of each of these outcomes and then review the research that connects teacher practices and qualifications to these important outcomes. We also provide ideas regarding how TFA might observe these practices and qualifications in fellowship applicants.

Outcome I: Teaching Practices Linked to Positive Academic Outcomes

In this section we examine the types of teaching practices frequently used by teachers who are highly impactful in terms of student academic outcomes. Most often, we think of student achievement in academic content areas. This typically includes both indicators of proficiency as well as measures of growth. However, academic outcomes also include other meaningful educational outcomes related to academic performance and progress such as English language proficiency, course and grade completion, on-time graduation, and dropout prevention. It is important to note that while studies have linked measures of teacher effectiveness to student achievement, there is less clarity on the specific teaching practices utilized by teachers who are deemed highly effective (Garrett & Steinberg, 2015; Kane et al., 2011). We consider the practices associated with positive academic outcomes in terms of instruction and pedagogy, teacher expectancy, authentic school-family engagement, and behavior management and classroom climate.

INSTRUCTIONAL PRACTICE AND PEDAGOGY

Teachers' instructional practice and pedagogy are central to improving students' academic outcomes. For example, researchers have shown that well-executed classroom observations conducted by trained professionals who come from outside the school system and use an elaborated set of standards are able to identify effective teachers and teaching practices (Kane et al., 2011). For example, one study, using data from the Cincinnati Public Schools Teacher Evaluation System, found that teachers' classroom observation scores predicted student achievement gains in both math and reading and, additionally, was able to link specific observed teaching practices to differences in achievement (Kane et al., 2011). First, they found that a one unit increase in teachers' overall classroom practices score was associated with, on average, a one-seventh of a standard deviation increase in reading achievement and a one-tenth of a standard deviation increase in math achievement (Kane et al., 2011). In other words, "the difference between being assigned a top-quartile versus bottom quartile teacher

in Cincinnati is associated with a seven percentile gain in reading (six in math)" (Kane et al., 2011, p. 605).

While high-impact teachers arguably implement a multitude of instructional practices, it is often unclear which specific elements of instruction directly lead to positive student academic outcomes. Researchers have begun to surface several specific practices that positively impact student academic outcomes including explicit strategy instruction, engaging students in questioning and discussion, and formative assessment and timely feedback.

Explicit Strategy Instruction

Explicit strategy instruction involves "integrating the explicit teaching of comprehension strategies, text structures, and word-level strategies into compelling sense-making activities with texts" (Greenleaf et al., 2001, p. 88). Such strategies are central to what researchers have termed the "reading apprenticeship" (Greenleaf et al., 2001, p. 79) and support students across subjects as they read for meaning, generate ideas for writing, and ascertain the meaning of unfamiliar words they encounter as they read. Teachers who are highly skilled at explicit strategy instruction give students opportunities to "develop a repertoire of strategies and skills that they can use flexibly and independently, depending on their purpose," whereas in classrooms where strategy instruction is lacking, "teachers may repeat definitions and rules when students are stuck" (Penn Graduate School of Education, 2023, PLATO Elements section). As an example of what excellent explicit strategy instruction looks like in the classroom, Grossman and colleagues (2013) described the following:

> *[The] teacher systematically broke down a newspaper article on "skinny jeans" to help students understand the features of effective journalism. She instructed them on how to compose a list of "4 Ws" (who, when, where, and what), how to use that list to create a focused lead, and then how to incorporate supporting details culled from graphic organizers. Students then wrote their own newspaper articles with an arsenal of specific strategies. This focus on how students could tackle ELA tasks was reflected in other high-quartile teachers' classrooms. These teachers made visible the often invisible processes requisite for successful, sophisticated literary analysis, reading comprehension, or writing. (p. 459-460)*

Researchers have found explicit strategy instruction to be one of the most important aspects of instruction related to teacher effectiveness. Grossman and colleagues noted, "Explicit Strategy Instruction is the dominant dimension that differentiates between high-quartile and low-quartile [value-added] teachers" and concluded "the element of Explicit Strategy Instruction distinguishes the more effective teachers in our sample" (p. 459).

Questioning and Discussion

A key aspect of impactful instruction, especially in reading and language arts, is the skillful use of questioning and discussion techniques. This instructional approach centers on fostering discussion, encouraging debate, posing "what if?" questions, and uncovering patterns (The Danielson Group, 2013). According to Hattie and Donoghue (2016), interactive classroom discussions stimulate critical thinking and promote a deep understanding of content. Specifically, Kane and colleagues (2011) found that reading teachers who skillfully employ questioning and discussion strategies tend to produce higher student achievement compared to others. This research aligns with work by Cazden (2001), which highlights the importance of structured classroom discussion in facilitating student learning. Cazden's (2001) research emphasizes the role of structured discussions in creating a collaborative learning environment that enhances students' communication skills and cognitive development.

Engaging classroom discussions stimulate interaction among students and deepen their understanding of academic content. The Danielson Group (2022) highlighted specific indicators for engaging students in learning through discussion. For instance, teachers can facilitate discussion by posing open-ended questions that encourage students to think critically, share diverse perspectives, and challenge one another's thinking. Additionally, teachers can promote an inclusive environment where all students feel comfortable participating to allow for thoughtful responses (The Danielson Group, 2022).

Formative Assessment and Timely Feedback

Formative assessment and timely feedback are essential elements of high-impact instruction because they facilitate students' continuous growth and improvement. Formative assessment involves a teacher providing ongoing checks for understanding during instruction, enabling them to adapt instruction in real time (Black & Wiliam, 1998). Effective formative assessment practices encompass active student participation, promote self-regulation, and inform teachers' targeted instructional decisions (Andersson & Palm, 2017).

Timely feedback, a critical component to formative assessment, empowers students to track their progress and make necessary adjustments, yielding positive achievement gains (Andersson & Palm, 2017; Graham et al., 2015). Hattie and Timperley (2007) underscore the significance of feedback that is prompt, specific, and actionable. In alignment with this model, high-impact teachers prioritize delivering constructive feedback promptly, ensuring students receive guidance throughout the learning process. Feedback is especially meaningful to students throughout the writing process, enhancing their writing skills when delivered effectively (Graham et al., 2015). By adeptly delivering formative assessments and providing timely feedback,

high-impact K-12 teachers allow students to actively engage in the learning process, leading to improved academic outcomes and understanding of content.

TEACHER EXPECTANCY

Teacher expectancy can be defined as "inferences (based on prior experiences or information) about the level of student performance that is likely to occur in the future" (Good & Nichols, 2001, p. 113). Expectations about what a student can achieve have lasting effects on academic outcomes. Research highlights the role teachers' expectations for students play in both short-term academic achievement (e.g., Gentrup et al., 2020; Peterson et al., 2016; Rubie-Davies et al., 2006) and long-term academic achievement (e.g., standardized math and reading comprehension scores) (Sorhagen, 2013). For example, in a year-long study in first grade classrooms in Germany, researchers measured teachers' expectations for students' academic achievement and students' actual academic achievement in mathematics and reading (Gentrup et al., 2020). Teacher expectations were measured using a questionnaire at the beginning of the school year. Student achievement was measured at the beginning and end of the school year. Researchers found evidence that teachers' inaccurately high expectations (i.e., expectations of achievement exceeded actual performance on the beginning of the year student achievement measure) were associated with higher actual achievement in mathematics and reading, while inaccurately low teacher expectations were associated with lower actual reading achievement. The study highlights the power of teacher expectations in shaping student achievement.

In a seminal study on teachers' expectations and literacy growth researchers found that a group of New Zealand teachers had lower expectations for literacy growth among Maori students than for any other ethnic group, despite Maori students having statistically similar beginning of the year literacy scores when compared to other ethnic groups (Rubie-Davies et al., 2006). By the end of the school year, Maori students' literacy growth was lower than their peers' literacy growth. While this study was descriptive rather than causal (e.g., we cannot say the teachers' lower expectations slowed Maori students' literacy growth), the study does highlight the implicit bias teachers possess. Some teachers may have a degree of implicit bias when it comes to expectations, which can result in differential outcomes for students (Rubie-Davies et al., 2006). This bias can persist regardless of real student achievement, which can have immense detrimental effects on student motivation and outcomes (Rubie-Davies, 2007; Rubie-Davies et al., 2006).

As we consider connections between teacher expectations and student achievement, it is worth highlighting findings from a study on factors that impact teachers' expectations in school contexts that serve historically marginalized student groups (López, 2017). This study investigated teachers' critical awareness (i.e., a teacher's knowledge about sociohistorical context surrounding historically marginalized

students and understanding of ways the education system perpetuates injustices for such students). The study demonstrated that students taught by teachers with high expectations and high levels of critical awareness achieve 0.5 standard deviations more growth on end of year reading assessments than students taught by teachers with high expectations but low levels of critical awareness. Put into context, the findings from López's (2017) study are even more meaningful:

> *When one considers that disparities between Latino students and their White peers on the fourth grade reading National Assessment of Educational Progress is approximately 1 SD (National Center for Education Statistics, 2015), it is particularly noteworthy that students with teachers who have high levels of both expectancy and critical awareness perform approximately ½ SD higher in student reading achievement over the course of one academic year. Given the cumulative nature of teacher expectancy effects (McKown, 2013), this effect is substantial. (p. 205)*

This study adds nuance to earlier research on teacher expectations: high expectations alone are not enough; high-impact teachers possess a critical awareness about the social context of their students' lives.

AUTHENTIC SCHOOL-FAMILY ENGAGEMENT

Authentic school-family engagement leads to improved academic achievement. We highlight studies that elucidate the impact of school-home connections on academic achievement and studies that explore how teachers can best connect with students' families in ways that enhance academic outcomes.

Strong relationships and open lines of communication with families have been shown to undergird student achievement. There is a large body of research literature that establishes this connection. Because of this, researchers have been able to conduct meta-synthesis and meta-analysis studies that aggregate findings across the individual research studies. In a meta-synthesis of 75 studies on parent involvement and academic achievement, Boonk and colleagues (2018) identified consistent, positive associations between parent involvement and students' academic achievement. Specifically, they found reading at home, high parental expectations for student achievement, parent-child communication about school, and parental support and encouragement are consistently positively associated with students' academic achievement in extant literature.

In a meta-analysis of 46 studies on parental involvement and academic achievement, researchers estimate a strong, positive correlation (.509) between measures of parent involvement and academic achievement (Ma et al., 2016). Researchers identified "home supervision" (e.g., parental rule setting and enforcement), "behavioral involvement" (e.g., parents making school visits) and "home-school connection" (e.g., communication

between parents and schools about students' academic progress) as particularly important for academic achievement. Researchers identified schools' capacity to engage families, institutionalization of family-school partnerships, and respectful and effective leadership as particularly important for students' academic achievement.

Given the research base clearly connects parent and family practices to student academic outcomes, high-impact teachers are arguably those who are able to foster these types of family engagement with their own students' families and build institutional capacity for using family engagement strategies. Often this includes challenging traditional school-centered approaches to parent involvement that privilege "white middle class normative school-based behaviors and activities that 'counted' as involvement" and instead centering families that have historically been marginalized by schools (Ishimaru, 2019, p. 353). Ishimaru (2019) provides a helpful distinction between "traditional parent involvement (a deficit-based approach that privileges normative school-centric behaviors) and family engagement (efforts to reach out and better integrate nondominant parents and families into existing systems)" (p. 352). Researchers have found that unidirectional, traditional parent involvement strategies (i.e., school to family initiatives that position schools as holders of knowledge and families as recipients) dominate family engagement initiatives (Ishimaru, 2019).

Some promising examples of shifts toward more equitable and collaborative family engagement strategies include parent capacity building activities like role-playing (e.g., community liaisons or other school partners role-playing conferences with families), teachers partnering with "cultural brokers" (i.e., school-family liaisons who share cultural and/or linguistics backgrounds with families but also are a part of the school organization) to create more welcoming school and classroom environments; home visits as learning opportunities for educators that shift power dynamics because of where they are taking place; and leadership development opportunities for families (e.g., opportunities to work as interpreters, to facilitate family-community workshops, to develop curriculum).

Ishimaru (2019) uses three dimensions to evaluate school-family engagement initiatives: relational, reciprocal, and collective.

- **Collective** (versus individualistic) school-family engagement focuses on bringing families together to promote equitable outcomes for all children in a school. This stands in contrast to more traditional, individualistic family engagement models, wherein families advocate only for their own individual children.
- **Reciprocal** (versus unidirectional) school-family engagement moves away from one-way approaches (e.g., flyers sent home in students' backpacks, robocalls) and leverages the existing resources, capacity, and culturally embedded "funds of knowledge" (Moll et al., 1992) families

possess to improve schools. Inherent in a reciprocal approach to family engagement is the recognition of the knowledge families already have.

- **Relational** (versus unilateral) school-family engagement shifts away from traditional hierarchical notions of power toward shared power (power over versus power with). These family engagement approaches bring together parents, families, community members, and educators in an effort to access resources, knowledge, and opportunities and transform education systems.

The research highlights the importance of welcoming nondominant families into school communities but also monitoring power asymmetries that have the potential to silence them. High-impact teachers are aware of these asymmetries, understand how these asymmetries can negatively impact student achievement, and work toward to counter these asymmetries through collective, reciprocal and relational school-family engagement approaches.

BEHAVIOR MANAGEMENT AND CLASSROOM CLIMATE

Classroom and behavior management are critical components of high-impact teaching. Moving beyond academic content delivery, effective management strategies contribute to students' overall learning experiences and influence their academic and social-emotional growth. Establishing a positive classroom environment is foundational to high-impact teaching and encompasses the creation of a safe and inclusive space to foster student engagement and belonging (Emmer & Sabornie, 2015). Further, high-impact teachers cultivate positive relationships with students, as the quality of teacher-student relationships has a significant effect on the classroom atmosphere (Pianta et al., 2012).

Teachers' implementation of clear and consistent expectations for students is essential for maintaining a well-structured learning environment (Sugai & Horner, 2009). This approach minimizes disruptions to learning and allows students to focus on academics. Research has demonstrated a positive association between students' perceptions of the clarity of behavior expectations and academic achievement in elementary and middle school settings (Gietz & McIntosh, 2014). Furthermore, high-impact teachers consider the cultural responsiveness of their classrooms, recognizing the importance of aligning behavior expectations with students' worldviews and cultural backgrounds (Weinstein et al., 2003). This careful consideration contributes to a more inclusive and supportive learning environment.

Drawing from a randomized control trial, Richman and colleagues (2019) identified four teaching practices associated with student achievement gains: collaborative

discussion practices, student participation, student engagement, and a positive classroom climate. Another study emphasized the importance of a positive classroom climate in ELA classrooms, linking it to more positive teacher-student relationships and sensitivity to student needs (Reyes et al., 2012). This study found a statistically significant, positive relationship between classroom emotional climate and students' grades and levels of engagement, demonstrating the tangible impact of a positive classroom climate on students' academic outcomes (Reyes et al., 2012). In summary, fostering a positive classroom climate and effective behavior management practices are key components of high-impact teaching, laying the groundwork for enhanced student engagement and achievement.

OBSERVING PRACTICES LINKED TO IMPROVING ACADEMIC OUTCOMES IN TEACHMICHIGAN FELLOWSHIP APPLICANTS

Identifying teachers who are likely to be high-impact in terms of improving academic outcomes hinges on reviewing data that captures a) the academic outcomes of applicants' prior students as well as b) information on applicants' teaching practices that are linked to academic achievement outcomes in the research literature. Examples include:

- Academic achievement data for current/prior students coupled with applicants' reflections on this data. Academic achievement data for students can be difficult to look at on its own because it is devoid of critical information that would dictate how to interpret this data. For example, whether or not past students met M-STEP proficiency standards in reading or math does not account for students' prior achievement when they started in the applicant's classroom. Consequently, coupling achievement data with applicants' interpretations of and reflections on this data will likely glean more information about their students' academic progress. Alongside achievement data, TFA might consider asking applicants to reflect on achievement goals they set for their students, whether students met those goals, etc. Additionally, asking applicants to describe a time when a student was struggling to meet achievement goals and what they learned through this process would also reveal important information.
- Sample lesson video or in-person observation of applicant teaching: Direct observation of applicants teaching in classrooms provides information not only on instruction and pedagogy, but also applicants' acumen in terms of academic and behavior expectations, and rapport

with students. A sample lesson or in-person observation can also provide insights of a teachers' ability to stimulate engaging classroom discussion.

- Teacher evaluation and observation documentation: While teacher evaluation and observation information is limited in terms of identifying ineffective teachers, it can provide helpful information regarding teachers who are exceptional educators. Given TFA's goal of recruiting high-impact teachers into the fellow program, reviewing teacher evaluation and observation materials could provide important information about applicants from the perspective of the school leaders who have a front row seat to observe them work with students, families, and colleagues.
- Student/parent perceptions of teaching: Given the links between school-family connections and subsequent academic achievement, asking applicants to provide some form of data that captures their track record engaging with families. Ideally, this data would come directly from students' families (e.g., responses from a student or parent survey) as opposed to indirectly (e.g., a principal's perceptions of how the teacher works with families). Additionally, during an interview process, TFA might consider listening for applicants to comment on how families fit into the school. For example, if asking a question about an applicant's ideas about school leadership, do applicants conceptualize beyond formally hired school leaders to include students and families? Do they talk about authentic and affirming engagement that reflects collective, reciprocal and relational approaches to working with families?

Outcome II:
Teaching Practices Linked to Developing Personal Qualities of Students

In this section we examine the teaching practices of high-impact teachers linked to the development of "personal qualities" of students that affect student success (Duckworth & Yeager, 2015, p. 239). Our use of the term "personal qualities" is intentional. It was originally used in a study of college admissions to consider the "other" characteristics of students outside traditional academic measures that contributed to students' success during their freshman year (Willingham, 1985, p. 2). Personal qualities are represented by many diverse conceptual definitions in the research literature including non-cognitive skills, social-emotional learning competencies, and 21st century skills (Duckworth & Yeager, 2015; Durlak et al., 2011; National Research Council of the National Academies, 2012; West et al., 2016):

- **Non-cognitive skills** are defined as traits or skills not captured by assessments of cognitive ability that appear to contribute to students' ability to sustain efforts at academic tasks (West et al., 2016). Examples of these skills within the research literature include conscientiousness, self-control, and grit (West et al., 2016).
- **Social-emotional learning** reflects the process by which students develop a broader range of competencies including the abilities to recognize and manage emotions, set and achieve positive goals, appreciate the perspective of others, develop care of self and empathy for others, establish and maintain positive relationships, make responsible decisions, and learn peer socialization skills (Durlak et al., 2011; Elias et al., 1997).
- **21st century skills** represent three domains of competencies: cognitive, intrapersonal, and interpersonal. Of utility to the concept of personal qualities are the skills represented in the intrapersonal domain (student ability to manage their behavior and emotions in achieving their goals)

> and the interpersonal (expressing ideas and interpreting and responding to the ideas of others) (National Research Council of the National Academies, 2012).

Duckworth and Yeager (2015) argue that all these terms center themselves within the same conceptual space, and "marching under the same flag rather than several different ones" is beneficial for developing a common dialogue on the topic (p. 239). These researchers further note the commonality of all these terms as they are all looking at student attributes which are conceptually different from cognitive ability, perceived as beneficial to both student and society, stable over time (without influence from external forces), affected by intervention, and expressed situationally. We adopt and use the concept of personal qualities as a catchall that encompasses all the beliefs, attitudes, and skills outside of measurable cognitive ability that contribute to student success (Duckworth & Yeager, 2015).

Teachers continuously engage students in experiences that affect the development of their personal qualities. These experiences come not only from engaging in critical thinking related to academic tasks, but also from navigating the personal challenges of making friends, developing peer relationships, working in collaboration with others, and resolving conflicts (Pianta & Hamre, 2009). High-impact teachers not only fulfill the role of academic instructor, but take on the roles of motivator, socializer, and mentor for students (Pianta & Hamre, 2009). In fulfilling these roles, teachers have the potential to greatly affect the development of students' personal qualities. The classroom experiences teachers provide, and the interactions and relationships occurring during these experiences, shape the personal skills that orient students to be productive, independent members of a larger society (Pianta & Hamre, 2009).

It is important to note that the teachers who are the most effective at improving content area test scores are often not equally as effective at improving the personal qualities of students (Blazar & Kraft, 2017). Students come to school with pre-existing levels of personal qualities that are associated with their level of engagement in school (Sharkey et al., 2008). Student engagement in school represents feelings of connectedness, engagement, attachment, bonding, and commitment (Sharkey et al., 2008). Family relationships and parenting behavior outside of school contribute to students' overall interest in school, and desire to achieve at a high level, with consistent effects across socioeconomic and ethnic backgrounds (Sharkey et al., 2008). These relationships can also play a negative role in student engagement, where students experiencing distress in family relationships suffer diminished emotional well-being which leads to decreased interest in class, less desire to be socially responsible, and receiving lower grades (Sharkey et al., 2008; Wentzel, 1998). Researchers note these family relationships are especially predictive of academic behavior in schools for students in early years. However, high-impact teachers who employ social approaches to learning (e.g., practices that seek to develop supportive student interpersonal relationships with teachers and peers) and work to meet students' emotional needs (e.g., by building self-

esteem and increasing overall well-being), have been shown to help students overcome challenges that stem from influences outside the classroom and lead to improved academic achievement (Wentzel, 1998). These findings indicate that high-impact teachers can develop students' personal qualities and support them in overcoming challenges outside of school through employing social approaches to learning.

INSTRUCTIONAL INTERACTIONS

First, we consider the instructional interactions that have been found to positively affect personal qualities of students. While many instructional interactions likely shape students' personal qualities, the research literature specifically surfaces evidence for providing emotional support to students, delivering content free from errors, and incorporating reflective practice (Blazar & Kraft, 2017; Shechtman & Abu Yaman, 2012). The literature shows instructional interactions shape many student personal quality outcomes, including self-efficacy in academic performance, engagement in/enjoyment of learning, behavior self-regulation, motivation to learn, and development of interpersonal relationship skills are found to be affected by these practices (Blazar & Kraft, 2017; Shechtman & Abu Yaman, 2012).

Teachers' instructional interactions have great potential to affect the academic achievement and personal qualities of students. In a study using data collected from fourth and fifth grade classrooms engaging in mathematics instruction across 52 schools, researchers found that practices representing teachers' emotional support, ambitious instruction, and mathematical errors (see Table 1 for definitions and examples of each of these teacher practices) had significant positive effects on students' self-efficacy in math, happiness in class, and student behavior (Blazar & Kraft, 2017). Of note is the degree to which teachers' emotional support affects student self-efficacy in math and student happiness: A one standard deviation increase in teachers' emotional support results in a .18 standard deviation increase in self-efficacy in math and a .37 standard deviation increase in happiness in class (Blazar & Kraft, 2017). These findings highlight the importance of teachers meeting the emotional needs of students. Teachers able interact with students on a personal level and create a positive emotional environment were able to make the classroom a happy place for students, develop student feelings of enjoyment/engagement in classroom learning activities, and foster a love for the subject (Blazar & Kraft, 2017). These same teachers made students feel they could solve any problem, not give up when facing difficulty, and focus on learning the content (Blazar & Kraft, 2017).

Important to note are the negative effects that errors made during instruction have on students' classroom experiences and academic achievement. Errors during instruction refers to mathematical errors and instructional imprecisions the students observe during teacher delivery of lessons. These errors include content errors indicating gaps in content knowledge, imprecisions in language and notation in the

articulation of content concepts and ideas, and a lack of clarity in the presentation of content or execution of learning tasks (Center for Education Policy Research, n.d.). Findings show a significant decrease in self-efficacy in mathematics and in performance on high-stakes subject area testing resulting from errors made during instruction. Most significantly is the decrease in happiness of students in classrooms where teachers make errors during instruction (Blazar & Kraft, 2017). This can cause students to lose interest in the subject area, disengage from instruction, and ultimately result in decreased academic performance.

Table 1. Teacher Practices Linked to Student Self-Efficacy, Happiness in Class, and Student Behavior

Teacher Practice Construcy	Definition	Examples
Teacher Emotional Support	Teachers' social interactions with students and the emotional environment in the classroom.	• Sensitivity to students • Regard for student perspectives • Creating a positive classroom climate
Mathematical Errors	Mathematical errors made and distortion of the content during instruction.	• Mathematical content errors made during instruction • Imprecisions in language and notation in articulation of concepts/ideas • Lack of clarity in presentation of content or execution of learning tasks

Note: Constructs and definitions drawn from Blazar and Kraft (2017); Center for Education Policy Research (n.d.)

Teaching practices that incorporate reflective components provide students opportunities to develop their personal qualities. Reflective components allow students opportunities to develop their personal qualities of self-reflection and reflection on other material (Shaw et al., 2018). Self-reflection refers to student reflection on their personal perspectives, beliefs, and skills (Shaw et al., 2018), whereas reflecting on other material refers to student reflection on the perspectives, beliefs, and skills of others. Both self-reflection and reflection on other materials use the critical thinking skills of analysis and evaluation in deciding what to believe or do (Ennis, 1985; Shaw et al., 2018). Affective teaching practices build on conventional practices by adding a reflective component (Shechtman & Abu Yaman, 2012).

Teachers using affective teaching practices encourage students to make meaning of the curricular knowledge by relating it to their own lives (Shechtman & Abu Yaman, 2012). These practices allow students to openly share their thoughts and feelings with their peers which in turn help to build interpersonal relationships, a collaborative classroom culture, and a sense of belonging to a group (Shechtman & Abu Yaman, 2012). Using data from a randomized control trial of thirty-six teacher trainees in Israel

teaching a six-lesson unit of study in a fifth and sixth grade Arabic literature class, researchers found that incorporation of an affective teaching practice produces more favorable student outcomes in content knowledge, motivation to learn, perceived classroom climate, group cohesion, and behavior than classrooms employing conventional instructional practices (Shechtman & Abu Yaman, 2012).

Affective teaching practices are also linked to improved student behavior outcomes. Students in classrooms employing affective practices showed substantive gains in desired behaviors of engagement, speaking openly about themselves, understanding themselves and others, and encouraging classmates, with decreases in undesired behaviors and aggression (Shechtman & Abu Yaman, 2012). High-impact teachers will recognize the importance of reflective opportunities for the development of students' personal qualities and incorporate reflective components into their practice.

TEACHER-STUDENT RELATIONSHIPS

Next, we consider the impact that different types and qualities of teacher-student relationships have on students' personal qualities. The concept of teacher-student relationship takes many forms throughout the research literature, including the caring relationship and developmental relationship (Endedijk et al., 2022; Scales et al., 2020; Sharkey et al., 2008). Researchers have shown teachers shape the personal qualities of student engagement, self-concept, interpersonal relationship skills, goals and aspirations, social competencies, academic effort, academic motivation, self-efficacy, and self-determination through establishing caring and developmental relationships with their students (Endedijk et al., 2022; Santos et al., 2014; Scales et al., 2020; Sharkey et al., 2008).

By building relationships with students, high-impact teachers develop the personal qualities of students that lead to both academic success and meaningful social outcomes. For example, an analysis of 10,000 7th, 9th and 11th grade students' responses to the California Healthy Kids Survey showed that teachers who develop caring relationships with their students significantly affect student engagement, self-concept, interpersonal skills, and goals and aspirations (see Table 2 for examples of student beliefs relating to these outcomes) (Sharkey et al., 2008). Important to note is that these findings hold true across student backgrounds representing differing levels of family support (i.e., student perceptions that there was a parent or someone at home that believes they will be successful), socioeconomic status, and ethnicity (Sharkey et al., 2008). Teacher relationships with students were characterized by student perceptions of teachers caring about them, telling them when they did a good job, noticing when they were not present, wanting them to do their best, listening to their thoughts, and believing in their ability to be successful (Sharkey et al., 2008).

Interestingly, while developing caring relationships matters for all students, it appears to matter more for those who come from families where the student perceives there is no parent or other adult at home who believes they can be successful. Table 2 shows the effect sizes of caring relationships on student personal qualities for the whole group of students as well as broken down by high and low family support subgroups. The magnitude of the effect of a caring teacher on self-concept, interpersonal skills, and goals and aspirations is greater for students from less supportive families. This means that a high-impact teacher who can develop a caring interpersonal relationship with a student from a less supportive family background can have a considerable effect on student personal qualities that contribute to lifelong academic and social success.

Table 2. Effects of Caring Teacher Relationships on Student Personal Qualities

Student Personal Qualities	Examples of Student Perceptions	Whole Group	High Family Support	Low Family Support
Student Engagement	Feels happy at school. Feels close to people at school	0.406***	0.410***	0.387***
Self-Concept	Knows where to go for help when they have a problem. Feels they can do most things if they try. Feels they have a purpose to their life. Understands their moods and feelings. Understands why they do what they do.	0.557***	0.402***	0.491***
Interpersonal Skills	Feels bad when others get their feelings hurt. Tries to understand what other people go through. Enjoys working with others their age. Stands up for themselves when putting others down. When they need help, finds others to talk with. Tries to work out problems by talking or writing about them	0.537***	0.396***	0.497***
Goals and Aspirations	Has goals and plans for the future. Plans to go to college or another school after high school.	0.435***	0.285***	0.440***

*Notes: Significance: ***p < .001. Whole group, N=10,000; High Family Support group, N=823; Low Family Support group, N=806. Constructs, examples, and effect sizes drawn from Sharkey et al. (2008).*

Teacher-student relationships are commonly understood to have substantive effects on the personal feelings of individual students towards their teachers. However, researchers have shown that individual teacher-student relationships can also meaningfully shape students' relationships with other peers in their classrooms (Endedijk et al., 2022). In a meta-analysis of 297 studies on the quality of teacher-student relationships and student-peer relationships, researchers found significance in both positive and negative teacher-student and student-peer relationships which became more pronounced over time (Endedijk et al., 2022). The significance of these relationships was consistent across reporting of relationship quality by both teachers and students alike. Teacher-student relationships within the analysis focused on closeness, support, warmth, and conflict in their interactions (Endedijk et al., 2022). This means that teachers cultivating a positive teacher-student relationship positively affect the relationship that students have with their peers and promote the development of personal qualities relating to social competence (Santos et al., 2014).

In building upon the idea of caring relationships within the research literature on the effects of teacher-student relationships, one study introduces a more comprehensive construct of developmental relationship and its effects on student engagement, academic motivation and academic performance (Scales et al., 2020). The concept of developmental relationships identifies five major elements: expressing care, challenging growth, providing support, sharing power, and expanding possibilities. Table 3 summarizes elements of the developmental relationship framework from a student perspective and corresponding teacher actions (Scales et al., 2020).

Table 3. The Developmental Relationships Framework From a Student Perspective

Element	Actions	Definitions
Express care *Show me that I matter to you.*	Be dependable Listen Believe in me Be warm Encourage	Be someone I can trust Really pay attention when we are together Make me feel known and valued Show me you enjoy being with me Praise me for my efforts and my achievement
Challenge growth *Push me to keep getting better.*	Expect my best Stretch Hold me accountable Reflect on failures	Expect me to live up to my potential. Push me to go further. Insist I take responsibility for my actions. Help me learn from mistakes
Provide support *Help me complete tasks and achieve goals.*	Navigate Empower Advocate Set boundaries	Guide me through hard situations and systems. Build my confidence to take charge of my life. Stand up for me when I need it. Put in place limits that keep me on track.

Table 3. The Developmental Relationships Framework From a Student Perspective		
Share power *Treat me with respect and give me a say.*	Respect me Include me Collaborate Let me lead	Take me seriously and treat me fairly. Involve me in decisions that affect me. Work with me to solve problems and reach goals. Create opportunities for me to take action and lead.
Expand possibilities *Connect me with people and places that broaden my world.*	Inspire Broaden horizons Connect	Inspire me to see possibilities for my future. Expose me to new ideas, experiences, and places. Introduce me to people who can help me grow.

Note: Elements, actions, and definitions drawn from (Scales et al., 2020)

Utilizing student reported survey data from 534 sixth, seventh, and eighth grade students from a Midwestern school, Scales and colleagues (2020) found that strong developmental teacher-student relationships are positively linked to students' academic motivation, perceptions of belonging and school climate (engagement), and GPA (performance) indirectly through motivation. Students with better developmental relationships had statistically better academic motivation and perceptions of belonging and school climate than their counterparts with lower quality developmental relationships (Scales et al., 2020). Additionally, it is important to note that teacher relationships in this study may be more impactful for low-income students and students of color (Scales et al., 2020). While students from low-income families and their affluent background counterparts began the year with comparable levels of student-teacher relationships, students from low-income families were found to experience greater declines in components of academic motivation and quality of teacher-student relationships over the course of the school year (Scales et al., 2020). These findings highlight the importance for high-impact teachers to build strong developmental relationships with low-income students for mitigating the effect of socioeconomic background on academic motivation and academic performance.

ORGANIZED CLASSROOMS

The structures teachers create within their classrooms affect the development of the personal qualities of students. Students are provided the greatest opportunities to learn in organized classrooms, where students are interested, engaged, and well behaved (Hamre & Pianta, 2007). Organized classrooms refer to those in which teachers have established processes for organization and management of student behavior, time, and attention. (Emmer & Stough, 2001; Hamre & Pianta, 2007). Classroom organization is recognized as a key component in the development of

students' personal qualities at school (Hamre & Pianta, 2007). Research shows classroom organization, assessed using the Classroom Scoring System (CLASS) of teacher behaviors tied to developmental processes, to be a predictor of students' self-reported behavior (Blazar & Kraft, 2017; Pianta & Hamre, 2009). Teachers who create organized classrooms can create an environment that allows for students to engage in self-regulated learning (Blazar & Kraft, 2017; Clark et al., 2023; Hamre & Pianta, 2007; Korpershoek et al., 2016; Paris & Paris, 2001). Additionally, organized classrooms provide academic benefits in that they allow teachers to complete full lessons and maximize instructional time (Blazar & Kraft, 2017). Many personal qualities are positively affected by organized classrooms including awareness of learning, emotional awareness, empathy and respect for others, greater responsibility for their own behavior, setting personalized mastery goals (evidence of intrinsic motivation for academic performance and having a growth mindset), resiliency, self-regulation, sustained effort, and the foundations of positive personal relationships (Clark et al., 2023; Elliot & Church, 1997; Hamre & Pianta, 2007; Korpershoek et al., 2016; Paris & Paris, 2001; Scales et al., 2020).

The well-regulated environments provided by organized classrooms allow for students to engage in self-regulated learning and develop and express their self-regulatory skills (Hamre & Pianta, 2007). Self-regulated learning refers to the autonomous monitoring, direction, and self-regulation of students in their goals of acquiring information, expanding their expertise, and self-improvement (Paris & Paris, 2001). Self-regulated students can academically self-assess. This ability to self-assess extends to non-academic areas such as performance in music and sports (Paris & Paris, 2001). Personal qualities affected by increasing ability to self-assess include greater responsibility, sustained effort, awareness of learning, and generating personalized mastery goals (Paris & Paris, 2001). High-impact teachers recognize the benefits of self-regulated learning to the development of their students' personal qualities and employ effective classroom management strategies to create organized classroom environments that support these outcomes.

Obviously, not all classroom management approaches are equally effective at supporting the development of students' personal qualities. Classroom management strategies focusing specifically on the social-emotional development of students are more effective in changing student behavior and developing personal qualities of students than those which focus on academic, motivational, or behavioral outcomes (Korpershoek et al., 2016). Social emotional interventions are defined as those which develop personal qualities of emotional awareness, empathy, respect, resilience, self-regulation, and the foundations of positive personal relationships (Clark et al., 2023; Evertson & Weinstein, 2006; Korpershoek et al., 2016). Techniques used by teachers engaging in classroom management can be classified as preventive or reactionary (Evertson & Weinstein, 2006; Korpershoek et al., 2016). Teachers who incorporate preventive classroom management strategies are more effective in developing students' personal qualities (Korpershoek et al., 2016). These include organizational behaviors,

such as creating classroom rules and norms (Korpershoek et al., 2016) and praising students for demonstrating desired behavior (Clark et al., 2023). Specific actions aligned with preventative classroom management include creating classroom contracts, drafting a classroom constitution, having morning meetings with students, or greeting students at the door when they arrive to class. Conversely, reactionary strategies can be observed by teachers engaging in punishing behaviors, such as handing out warnings (Korpershoek et al., 2016) or sending a student to the principal's office following misbehavior (Clark et al., 2023). High-impact teachers are able to effectively utilize preventive classroom management approaches and recognize the importance of doing so to support students' personal quality development in their classrooms.

OBSERVING PRACTICES LINKED TO IMPROVING PERSONAL QUALITIES IN TEACHMICHIGAN FELLOWSHIP APPLICANTS

Identifying high-impact teachers who positively influence the development of students' personal qualities as fellows should focus on reviewing data that provides evidence of a) instructional interactions found to positively affect the development of personal qualities of students; b) behaviors associated with the construction of positive teacher-student relationships; and c) effective processes relating to classroom organization and management.

- Video or direct observation of applicants teaching a sample lesson: This would provide evidence of teachers engaging in instructional interactions or behaviors which affect the personal qualities of students, the construction of positive teacher-student relationships, and/or desired classroom management strategies. For example, observations of direct teacher-student interactions could provide evidence of the relationship building behaviors teachers exhibit and provide insight into the relationships teachers currently have with students in their classroom. Classroom management strategies could be assessed by looking for intervention types used, and instructional clarity of the lesson determined by looking for content errors made during instruction.
- Responses to questions or hypothetical situations that address elements within teacher-student relationship frameworks asking about how teachers would handle classroom situations: Teachers could be asked how they demonstrate care for students, push them academically, provide personal assistance on academic tasks, treat them with respect, provide student leadership opportunities, and or connect them to experiences outside the classroom. These statements could be assessed for how they relate to actions that contribute to positive teacher-student

relationship development within the developmental relationship framework. Additionally, teachers could be asked about how they would handle a hypothetical problem in the classroom, with answers examined for types of interventions identified and their potential impact on personal qualities of students.

- Student perceptions of the quality of relationship they have with the teacher: Ideally this information would come from the students themselves, perhaps in the form of a survey with items that capture concepts relating to student personal qualities or overall classroom climate. This could also come from an administrator who has direct knowledge of the teacher's relationships with the students in their class they have gained from ongoing direct observation.

Outcome III:
Teaching Practices That Enhance Equity and Educational Opportunity

In this section we examine the types of practices used by teachers who are highly impactful in terms of advancing equity and expanding educational opportunity for students in their classrooms and schools. These practices center on disrupting arrangements that promote marginalization and exclusionary practices (Gewirtz, 1998). Key outcomes of interest include narrowing opportunity gaps and the corresponding achievement gaps that result from differential educational opportunity.

CULTURALLY SUSTAINING PEDAGOGY

Culturally sustaining pedagogy builds upon and enhances preceding asset-based pedagogical frameworks including culturally relevant pedagogy and culturally responsive pedagogy (Gay, 2010; Ladson-Billings, 1995; Paris & Alim, 2014). Culturally sustaining pedagogy goes beyond accepting or affirming students' backgrounds and connecting to students' cultural knowledge and prior experiences. Specifically, culturally sustaining pedagogy focuses on making schools places where students' identities are sustained and cultivated rather than being sidelined, erased, or merely tolerated, promotes equity across student groups, centers access and educational opportunity, and invites teachers and students to critique and question dominant power structures in society. As noted by Paris (2012), culturally sustaining pedagogy "seeks to perpetuate and foster—to sustain—linguistic, literate, and cultural pluralism as part of the democratic project of schooling" (p. 93). To adopt culturally sustaining approaches, teachers must have a mindset or consciousness (Gay, 2010; Howard, 2010; Jones & Donaldson, 2022; Paris & Alim, 2014), and skills and knowledge regarding implementing such approaches (Mistry et al., 2022).

Despite the prominence of culturally relevant, responsive, and sustaining pedagogy in education, much of the research in this area has been theoretical and observational. The research base linking culturally sustaining pedagogy to specific student outcomes is still growing. Researchers have begun to develop observational tools that can be used to gauge teachers' practices that align with these asset-based frameworks. The Culturally Responsive Instruction Observation Protocol (CRIOP; Powell et al., 2016) includes six elements of culturally responsive pedagogy: instruction, assessment practices, classroom relationships, discourse, critical consciousness, and family collaboration. The Equity and Access Rubrics for Mathematics Instruction (EAR-MI; Wilson, 2022) features seven aspects of culturally sustaining math pedagogy: positioning students as competent, making expectations explicit, attributing content authority to students, attending to language, coaching students, attending to classroom community, and attending to students' local context. Such instruments allow us to determine the degree to which teachers are employing practices aligned with culturally responsive and sustaining approaches, but the specific impact of those practices on student outcomes is less clear at present.

RADICAL CARE

The research literature has long surfaced the concept of care as central to supportive relationships between teachers and students (e.g., Noddings, 2005). Valenzuela's (1999) seminal study on subtractive schooling distinguished between aesthetic and authentic care. Aesthetic care focuses on academic achievement and other academic outcomes, casting aside students' cultural wealth thereby being subtractive, whereas authentic care broadens the focus to the whole student, including their family and community, and affirms both students' inherent knowledge and promise (Rivera-McCutchen, 2021). Scholars have continued to build on the prior work on care by taking a critical stance that further centers equity and considers race in the act of caring. Some have asserted critical care occurs when the formal structures of classrooms and schools and curricula are responsive to race. For example, when educators combine high expectations for students with strong teacher-student relationships and regard for students' typically undervalued funds of knowledge (i.e., "historically accumulated and culturally developed bodies of knowledge and skills" [Moll et al., 1992, p. 133]), students served by these educators stand to be more successful, especially in schools that serve historically and currently marginalized groups (Antrop-González & De Jesús, 2006).

The notion of critical care has since been extended to radical care, which is:

> *…informed by the historical and systemic legacy of racism in urban education. Yet an ethic of radical care in school leadership requires an explicit focus on creating equitable and socially just learning*

> *environments for students and their communities, combined with a sense of urgency and a spirit of radical hope (Rivera-McCutchen, 2021, p. 263).*

The framework of radical care includes five components: 1) embracing a spirit of radical hope 2) adopting an antiracist, social just stance; 3) cultivating authentic relationships; 4) believing in students' and teachers' capacity for growth and excellence; and 5) strategically navigating the sociopolitical and policy climate (Rivera-McCutchen, 2021).

ANTI-RACIST TEACHING

Anti-racist teachers understand how racism, particularly institutional racism, operates in society. They use this knowledge to act against racism in their schools and districts (Gooden et al., 2018; Welton et al., 2018). As an example, if an anti-racist teacher discovers that her school is systematically excluding Black students from advanced placement courses or is punishing students of color more harshly than white students, we would expect that teacher to take action to work to end the disproportionality within their school. Teachers engage in continuous cycles of learning about and responding to institutional racism's manifestation in schools and communities (Gooden et al., 2018), thus we might conceptualize becoming an anti-racist teacher is a journey rather than a destination (McManimon & Casey, 2018).

In a qualitative study on a two-year professional development program for anti-racist teachers (McManimon & Casey, 2018), teachers expressed the importance of the "relational accountability" (i.e., mutual accountability felt toward and among other teachers in the professional development program) they developed with other teachers in the professional development program as a catalyst for learning about and responding to racialized oppressions their students experienced. Teachers explained that the accountability they felt toward other teachers in their professional development program caused them to act to promote antiracism in their school. As schools seek to hire anti-racist teachers, they might consider seeking prospective teachers who are willing to commit to working toward anti-racist pedagogies and practices in their schools and classrooms.

OBSERVING PRACTICES LINKED TO EXPANDING EDUCATIONAL OPPORTUNITY AND EQUITY IN TEACHMICHIGAN FELLOWSHIP APPLICANTS

Identifying high-impact teachers who are equipped to expand educational opportunity and equity should focus on reviewing data that provides evidence of a) culturally sustaining practices, b) radical care, and c) a commitment to anti-racist teaching.

- Look for whether/how the applicant makes "issues of race, class, gender, disability, sexual orientation, and other historically and currently marginalized conditions in the United States central" to their work in their application materials (Theoharis, 2007). See if applicants consider these issues without being prompted to do so.
- Look for commitment to equity and anti-racist practices in an applicant's statement of teaching philosophy
- During an interview or as an application prompt, ask the applicant to describe a time when one or more of their students faced an issue of inequity, how they responded, and what the outcome was.
- Incorporate specific questions into the interview process that ask applicants to describe their experiences serving historically and currently marginalized groups of students (e.g., students with disabilities, multilingual learners classified as English learners, students of color)

Outcome IV: Teachers Who Promote Organizational and Systems-Level Improvement

In this section, we consider teachers who shape and support practice beyond their own classrooms. These teachers promote organizational growth in schools and districts through leadership, innovation, and advocacy. For example, teachers who are high-impact in terms of organizational improvement might mentor and train their peers, develop and apply new teaching techniques, or help shape school and district policies. In other words, they shape how other teachers and students experience school. We consider the research about teacher attributes and practices associated with organizational improvement outcomes. It is important to note that teacher attributes related to organizational improvement alone do not determine the impact that teachers can have on organizational growth. Even among teachers possessing the attributes detailed below, their ability to contribute to school improvement is mediated by the organizational conditions that they work within.

ORGANIZATIONAL IMPROVEMENT THROUGH TEACHER LEADERSHIP

First, we turn to scholarly work on the attributes of teachers that are or have the potential to become highly effective teacher leaders. Smylie and Eckert (2018) frame teacher leadership development systemically. They argue that just because someone self-selects into a teacher leadership role does not mean they will necessarily succeed there. They suggest thinking about how to effectively develop leaders through principal support, scaffolding based on teachers' initial capacity for leadership, resources for leadership development, and attention to organizational conditions.

Smylie and Eckert (2018) suggest that teacher leadership should be "adaptive, inquiry and learning-oriented; collaborative, prospective, inventive and improvement oriented; analytic and strategic, entrepreneurial and advocacy-oriented; and facilitative of others' learning and leadership" (p. 563). They argue that teachers who effectively engage in teacher leadership require the intrapersonal and interpersonal dispositions, knowledge, and skills outlined in Table 4.

Table 4. Dispositions, Knowledge, and Skills of Teacher Leaders

Professional Knowledge and Expertise	• Knowledge concerning student learning and development • Subject matter, curriculum, pedagogy, and pedagogical content knowledge
Organizational Knowledge	• Awareness and understanding of the school organization and individual and organizational processes of change
Cognitive and Metacognitive Skills	• Analysis and problem-solving skills • The ability and motivation to learn • Moral orientations and ethical reasoning • Self-awareness, self-understanding, and self-regulation • Emotional maturity • Leadership identity (i.e., how they think of themselves as leaders)
Relationship Building and Communication Skills	• Credibility and trustworthiness • The ability to build and maintain healthy and productive working relationships • The ability to develop and manage collaborative processes • The ability to encourage participation and build follower commitment • The ability to field and develop ideas among others • The ability to manage politics, stress, and conflict productively • The ability to develop learning and leadership among others

Note: Dispositions, knowledge, and skills of teacher leaders drawn from Smylie & Eckert, (2018).

In her book on teacher leadership, Danielson (2006) similarly emphasizes the importance of interpersonal skills, suggesting that teacher leaders need to be skilled in group facilitation, listening, joint problem solving, and honoring the ideas of others. While Smylie and Eckert (2018) argue that these skills should be intentionally developed in schools, those who want to hire teachers with strong leadership potential can also leverage this research during the teacher hiring process.

A review of the literature on attributes of teacher leaders breaks down the characteristics of effective teacher leaders into four categories: student learning,

empowerment, relationships, and collaboration (Lumpkin et al., 2014). Teacher leaders are

> *…innovative, organized, collaborative, trustworthy, and confident facilitators of learning" who "model integrity, have strong interpersonal and communication skills, display the highest level of professionalism, a commitment to students, and expertise, and demonstrate a passion for student learning, while taking the initiative as influential change agents (Lumpkin et al., 2014, p. 60).*

Researchers emphasize the importance of emotional intelligence, explaining that strong teacher leaders are "emotional magnets:" they draw people to them, have a contagious enthusiasm, and are skilled in connecting with others (Lumpkin et al., 2014). This same research also reveals that teachers agree that the success of teacher leaders depends largely on their emotional intelligence and ability to facilitate and maintain connections (Lumpkin et al., 2014).

ORGANIZATIONAL IMPROVEMENT THROUGH TEACHER INNOVATION

High-impact teachers also promote organizational improvement through innovation in their practice, content, and schools. Thurlings and colleagues (2015) conducted an international literature review on characteristics associated with "innovative behavior" in teachers. They define innovative behavior as "a process in which new ideas are generated, created, developed, applied, promoted, realized, and modified by employees to benefit role performance" (Thurlings et al., 2015, p. 430). A number of studies included in this international literature review looked at creative teaching, which includes developing an original or novel teaching method to reach a specific educational goal, while others considered innovative behavior through the lens of teacher professional change motivated through self-reflection and professional development (Thurlings et al., 2015). Many of the studies examined in this review focused on how teachers integrated new information and communication technology (ICT) in the classroom. The authors suggest that innovative behavior can be used interchangeably with creative behavior and occurs in three stages: "a) intentional idea generation, b) idea promotion, and c) idea realization" typically toward improving individual, group, or organizational performance (Thurlings et al., 2015).

Drawing on studies that use a range of measurement and analysis techniques including interviews, observations, questionnaires, regression analysis, and variance analysis, Thurlings et al. (2015) assert that there is strong evidence that teachers with subject area and pedagogical expertise, experience teaching multicultural groups, problem solving skills, technological literacy, self-efficacy, and motivation are more likely to engage in innovative behavior. The strongest predictors of teachers' uptake

of ICT innovations were support from school leaders and institutionalized support structures for implementation (Loogma et al., 2012). Similarly, a survey of 389 elementary and middle school teachers in Canada found that teachers who were more likely to integrate computer technology into their classrooms had higher levels of technical literacy, motivation, and self-efficacy as well as training and support (Mueller et al., 2008). Finally, Tomic and Brouwers (2002) investigated how teachers in a secondary school in the Netherlands generate new ideas for their work. They explain that teachers tend to generate new ideas in quiet spaces away from work, that they consult colleagues, articles, and books, and they consult with experts and supporting evidence to evaluate the quality of the idea (Tomic & Brouwers, 2002).

In a study of 15 teachers at a Dutch high school attempting to implement an innovation program around active and self-regulated learning for students, researchers categorized teachers by their "willingness to learn" (not seeing why there's a need to learn, wondering how to learn, or eager to learn) (Van Eekelen et al., 2006, p. 414). Teachers who fell into this last category, eager to learn, were more likely to be critical of their own performance, have insight into their personal strengths and weaknesses, create explicit plans for personal improvement, and adapt the program to meet the needs of their students when necessary (Van Eekelen et al., 2006).

Notably, a study exploring Australian primary school teachers' perspectives on teaching literacy found that teachers who had a preference for "traditionalist" approaches to literacy—conceptualizing literacy simply as "understanding the written word"—were less likely to engage in innovative behaviors than teachers who took a "futures-oriented" perspective on literacy—conceptualizing it as "negotiating a wide range of complex electronic and visual texts with which we interact in our daily lives" (McDougall, 2010, p. 680). Additionally, teachers' need for self-preservation, described as feeling as though they just need to "survive" amidst the expectations placed on them, was negatively associated with innovative behavior (McDougall, 2010).

These findings point to a broader lesson from the literature that highlights the importance and impact of organizational conditions on teacher innovative behavior, noting the positive effects of opportunities for interaction among colleagues, the implementation of support, guidance, and feedback for teachers, access to equipment and technology, and a climate and culture of innovation (Thurlings et al., 2015).

OBSERVING PRACTICES LINKED TO ORGANIZATIONAL IMPROVEMENT IN TEACHMICHIGAN FELLOWSHIP APPLICANTS

Identifying high-impact teachers who are poised to promote organizational improvement should focus on reviewing data that provides evidence of a) strong

teacher leadership skills, b) willingness to try new approaches and a desire to be innovative, and c) effort to advocate for change and improvement.

- Applicants might be asked to comment on how they have sought to influence the broader school beyond their own classroom or how they have demonstrated teacher leadership during their tenure as an educator or how they have supported other educators
- Ask applicants to talk through a time they provided a professional learning opportunity for teachers in their building; have applicant explain how they approach teaching adults/colleagues
- Ask applicants to describe a change they would like to see in their school, why, and how they would go about facilitating that change to gauge awareness of how the school organization functions and mechanisms for change
- Ask applicants to describe a time they applied a new concept or strategy in their classroom, why, how it went, what they learned
- Look for examples of collaboration connected to a broader organizational goal or mentorship of new teachers in application materials.

HOW MIGHT TFA UTILIZE THE INFORMATION GLEANED FROM THIS LITERATURE SYNTHESIS?

Given TFA's goal of recruiting and retaining teachers who are considered to be high-impact not only in terms of improving students' academic outcomes but also outcomes related to student personal qualities, educational opportunity and equity, and organizational improvement, TFA can use the information presented in this literature synthesis to drive and refine their process of recruiting and selecting TeachMichigan fellows. Table 5 below outlines how TFA might glean information necessary through the application process to gauge the degree to which TeachMichigan fellow applicants are likely to be high-impact across the multiple outcomes discussed in this literature synthesis.

Table 5. How TFA Can Use the Application Process to Capture TeachMichigan Fellow Applicants' Likelihood of Being High-Impact Across Multiple Outcomes of Interest

	Initial application	Classroom instruction	Reference checks/letters of recommendation	Applicant interview
Academic outcomes	Questions such as: • How do you set academic goals for your students? What data do you use to track progress toward those goals? • How have you grown in your ability to help students learn and achieve since you became a teacher?	Observation of: • How the applicant stimulates and engages in questioning and discussion with students. • Explicit strategy instruction (e.g., comprehension strategies, text structures, and word-level strategies into compelling sense-making activities with texts) • An example of feedback on an assignment that was related to the goals of the lesson observed in the video	Discussion of: • The quality of instruction occurring in the applicant's classroom • Whether the applicant is seen as an excellent instructor by teacher peers and school leaders • The degree to which the applicant is able to help students who start at different points learn and grow • Other stakeholders' perceptions of the applicant's teaching and instruction (e.g., students, parents, peer teachers)	Questions such as: • How do you define success for your students? • How do you communicate students' academic progress to students and their families? • Who do you partner with to support academic achievement of individual students? (e.g., fellow teachers, parents). How do you partner with them?
	Across application components, look for: • Emphasis on academic rigor coupled with scaffolded instructional supports • Positioning of parents/families as partners in promoting academic success			
	Across application components, potential concerns include: • Emphasis on classroom management or personal qualities at the expense of academic rigor and high academic expectations • Positioning of parents/families as detracting from academic success or discussion of the role of parents/families is absent from application altogether			

	Initial application	Classroom instruction	Reference checks/letters of recommendation	Applicant interview
Personal qualities outcomes	Questions such as: • What are some ways in which you build strong relationships with students? • How do you differentiate instruction to ensure that all students are challenged academically? • How do you incorporate student voice into your planning or delivery of learning opportunities? • What are some strategies you use to support students in working through difficult problems?	Observation of: • Direct teacher-student interactions that provide insight into applicants' relationship building behaviors and rapport they have with students in their classroom. • Opportunities for students to share perspectives and provide input into the learning process. • Classroom management strategies that honor the humanity of students • Differentiated learning opportunities that establish high standards and push all students academically. • Evidence of connection of learning to issues, experiences, and opportunities outside of the classroom.	Discussion of: • Importance of the development of personal relationships with students, and evidence of care, respect, and value of student voice in the classroom. • Encouraging students to work through tough academic problems and belief that all learners are capable of achieving at high levels. • Value of student perspectives and importance of praising student effort and achievement. • Importance of provision of student leadership opportunities. • Use of preventive management strategies in the construction of classroom procedures, rules, routines, and norms.	Questions such as: • What actions do you take to develop a positive classroom climate that is inclusive of all students? • What kinds of leadership opportunities do you provide to your students? • Describe how you would handle a problem with a student who is exhibiting undesired behavior within the classroom.
	Across application components, look for: • Evidence of actions that develop and demonstrate belief in the importance of positive student-teacher relationships (expressing care, challenging growth, providing support, sharing power, and connecting to real-world experiences). • Incorporation of student voice in planning and delivery of learning opportunities. • Integration of student reflection in learning opportunities and classroom management strategies			
	Across application components, potential concerns include: • Errors, inaccuracies, or lack of clarity in application / instructional materials presented or teaching practices observed. • Use of reactionary classroom management strategies that exhibit punishing behaviors (e.g. handing out warnings to students, sending to the principal's office, sending to the hallway, threatening punishment). • Absence of concern for the emotional well-being of students in the desired outcomes of classroom learning opportunities.			

	Initial application	Classroom instruction	Reference checks/letters of recommendation	Applicant interview
Educational opportunity and equity outcomes	Questions such as: • Describe how you have advocated for a historically marginalized group of students (applicants should demonstrate some familiarity with this terminology in their response. For example, they could discuss their work with students with disabilities, multilingual learners classified as English learners, students of color, etc.)	Observation of: • Rigorous classroom instruction coupled with radical care • High expectations for students coupled with critical awareness (i.e., a teacher's knowledge about sociohistorical context surrounding historically marginalized students and understanding of ways the education system perpetuates injustices for such students) • Evidence of differentiated instruction based on students' individual learning needs • Inviting students to critique and question dominant power structures in society	Discussion of: • Strong teacher-student relationships with students from different backgrounds • How the applicant connects with students and families and recognizes their deep funds of knowledge	Questions such as: • Describe a time when one or more of your students faced an issue of inequity. How did you respond? What was the outcome? What did you learn from this experience? • How do you think about setting learning expectations for different students you teach?
	Across application components, look for: • Whether/how the applicant makes "issues of race, class, gender, disability, sexual orientation, and other historically and currently marginalized conditions in the United States central" to their work in their application materials (Theoharis, 2007). • See if applicants elevate these without being prompted to do so. • Commitment to equity and anti-racist practices • An "explicit focus on creating equitable and socially just learning environments for students and their communities, combined with a sense of urgency and a spirit of radical hope" (Rivera-McCutchen, 2021, p. 263).			
	Across application components, potential concerns include: • Color blindness • Narrow focus on academic outcomes • Limited understanding around the fact that school systems have not been built with marginalized students and families in mind.			

<table>
<tr><th></th><th>Initial application</th><th>Classroom instruction</th><th>Reference checks/letters of recommendation</th><th>Applicant interview</th></tr>
<tr><td rowspan="3">Organizational improvement outcomes</td><td>Questions such as:
How have you influenced the broader school beyond your classroom?
What does teacher leadership look like to you? How have you demonstrated teacher leadership?
What do you see as broader organizational challenges your school faces?</td><td>Observation of:
Applicant working to connect what students are doing during the lesson to other classes, aspects of their schooling, or the broader community</td><td>Discussion of:
The applicant having a positive impact on the school organization
The applicant being revered by colleagues
A need to retain the applicant because if they were to leave the school, the entire organization would feel this loss.</td><td>Questions such as:
Tell us about a time you worked to build the capacity of educators around you.
What is a change you would like to see happen in your school? How do you see yourself fitting into this change?</td></tr>
<tr><td colspan="4">Across application components, look for:
Examples of collaboration with other teachers/school stakeholders
Goals related to enhancing the broader school organization
Mentoring or coaching other educators
Partnership with school leaders to promote positive organizational change
A view of the school community as an ecosystem in which different people and elements rely on and impact one another, ultimately shaping student outcomes</td></tr>
<tr><td colspan="4">Across application components, potential concerns include:
Limited collaboration with colleagues
An “Egg crate” view of their classroom (view school structure as highly compartmentalized where “teachers work in isolation, concentrating on their own students largely to the exclusion of others, interacting only intermittently with their colleagues” (Johnson, 2015, p. 119).</td></tr>
</table>

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