

A photograph of a teacher with dreadlocks and glasses, wearing a blue and white striped hoodie, leaning over a desk to assist students. The background shows a whiteboard with handwritten notes in red and blue ink. The text is overlaid on the image in a dark blue semi-transparent box.

10 Things All Teacher Candidates Should Learn in Teacher Prep

PRESENTED BY



Introduction

Too often, teachers leave their teacher training programs feeling unprepared for the classroom. In a recent survey, 88% of teachers indicated their training fell short in preparing them to be effective in the classroom, including in areas they deemed “critically important.”¹ This isn’t a new trend. Both early career and long-time teachers express similar frustrations. While there’s no easy fix to make sure every teacher is ready on day one, there are policy levers that can help.

Minnesota is currently working to update their Standards of Effective Practice, which define the common set of knowledge and skills that all teacher candidates must learn in their preparation programs. Besides the addition of technology standards in 2009, these regulations haven’t been revised since their adoption in 1999. We now have the opportunity to rethink what’s most critical in teacher prep, particularly as our teachers are serving an increasingly diverse student body.

What’s going well in teacher prep and what needs to change? To answer this, we surveyed and spoke with more than 50 Minnesota educators, reviewed national research, and explored best practices in other states. From that, we identified ten key areas all educators should learn in teacher prep. By addressing these needs in the Standards of Effective Practice, Minnesota can take an important step toward ensuring future teachers will have the skills and competencies most critical to student success.

1. Reading Science

One of the most common things teachers we surveyed wished they had learned is the science of reading. This need is not unique to Minnesota. Despite a large body of research supporting scientifically-based methods of early reading instruction,² the vast majority of teacher education programs do not teach it.³ Only 22% of teacher education professors say they center their philosophy around explicit, systematic phonics,⁴ the method which most effectively support early readers.

This has a significant impact on students. In 2019, for black, Latino, and Native American students alike, less than one-third were proficient in reading in 3rd grade.⁵ Adoption of science-based teaching methods can help close this gap, and should be a core competency all teacher candidates learn.



1. Educators For Excellence. (2020). "Voices from the Classroom: A Survey of America's Educators." Educators For Excellence. All references to Minnesota and national feelings on their prep programs that come from the 2020 E4E will survey be denoted with a 1.

2. Schwartz, S. & Sparks, S. (October 2, 2019). "How Do Kids Learn to Read? What the Science Says." Education Week.

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I wish my program would have spent more time going in-depth with science-based approaches to teaching literacy. Regardless of subject matter, I think all teachers could have used this.

- Minnesota Teacher

2. Family Engagement

When teachers engage in meaningful and collaborative relationships with families, students are more likely to earn higher grades and test scores,⁶ graduate on time and go to college,⁷ and have better attendance.⁸ Unfortunately, only 32% of Minnesota teachers feel their teacher preparation programs effectively prepared them to engage parents and guardians in their student's learning—even lower than the nationwide rate of 45%.¹

Model Standards to Support Strong Parent-Teacher Relationships

Kansas Standard 10.2.3PS: "The teacher welcomes families; participates in regular two-way, meaningful communication; supports student successes; advocates for every child; shares power with the families and professionals involved with each individual student; and collaborates with appropriate school and community resources."

Massachusetts Standard 3, Indicator C: "Communication indicator: Engages in regular, two-way, and culturally proficient communication with families about student learning and performance."

3. Lubell, S. (February 2017). "The Science of Teaching Reading." National Council on Teacher Quality; National Council on Teacher Quality. 2018. "A Closer Look at Early Reading: Graduate and Alternative Route Elementary Programs." National Council on Teacher Quality.

4. Will, M. (January 22, 2020). "Preservice Teachers Are Getting Mixed Messages on How to Teach Reading." Education Week.

5. Minnesota Department of Education Report Card. Accessed January 16, 2020. All references to Minnesota specific statistics that come from the MDE Report Card will be denoted with a 5.

6. Mapp, K. (2016). "Working with Families and Caregivers: Family Engagement as a Core Element of Effective Practice." Harvard Graduate School of Education.

7. Kreider, H. (2006). "Family Involvement: What Does Research Say?" Harvard Graduate School of Education.

8. Epstein, J. & Sheldon, S. (2004). "Getting Students to School: Using Family and Community Involvement to Reduce Chronic Absenteeism." *School Community Journal*, 14, pp 39-56.

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"I wish had learned how to analyze data to ensure efficient, effective, and continual response to student need."

- Minnesota Teacher

9. Greenberg, J. & Walsh, K. (May 2012). "What Teacher Preparation Programs Teach About K-12 Assessment: A review." National Council on Teacher Quality.

10. Pane, J., Steiner, E., Baird, M., Hamilton, L., & Pane, J. (2017). "How Does Personalized Learning Affect Student Achievement?" Rand Corporation.

11. Darling-Hammond, L., Zieleszinski, M., & Goldman, S. (2014). "Using Technology to Support At-Risk Students' Learning." Stanford Center for Opportunity Policy in Education.

3. Data and Assessment Literacy

To improve student outcomes and personalize their education, teachers need to be able to continuously, effectively, and ethically access, interpret, act upon, and communicate about multiple types of data. When done well, it has positive effects on achievement in reading and mathematics. Yet many teachers, and especially early career teachers, struggle with assessment literacy: both how to create and understand tests to accurately capture student learning, and to inform educational decisions.⁹ Assessment literacy is critical to gauging whether students have mastered standards, determining what supports they need to be successful, and differentiating instruction. Unfortunately, this is another area where teacher prep falls short, with only 38% of Minnesota teachers (43% nationally) reporting they learned how to use data to inform instruction.¹

Model Standards for Assessment Literacy

Indiana Standard 4.3: Knowledge of the characteristics, uses, advantages, and limitations of different types of formative and summative assessments; the ability to use "appropriate assessment strategies, instruments, and technologies to obtain desired information and monitor progress; and the ability to adapt assessments for all students, including English Learners and students with exceptionalities, including high ability and twice exceptional."

Montana Standard 1F: "Use multiple methods of assessment, including formative and summative assessments, to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making."

4. Differentiation and Technology Integration

Nationally, only about half of teachers feel their preparation programs were effective in teaching them how to differentiate instruction and integrate technology in the classroom.¹ These are things Minnesota educators told us they wished they had learned. As classrooms become more heterogeneous—including through mainstreaming of English Learners and students with special needs—it's important teachers are equipped to modify curriculum, integrate meaningful assessments, and group students flexibly. When this occurs students of all abilities have better outcomes.¹⁰ Furthermore, research has shown that effectively blending technology with face-to-face teacher time leads to higher student engagement and learning gains.¹¹





5. Social-Emotional Learning

People with strong social-emotional competencies—such as self-management, relationship, and decision making skills—are more likely to have better employment, academic, and health outcomes.¹² However, we heard from Minnesota educators that while their teacher preparation programs talked about social-emotional learning, they were not meaningfully trained in how to implement this in the classroom. Even though social-emotional learning is a growing topic in teacher prep, less than one-in-four newer teachers reported receiving any social-emotional training.¹³

Model Standards to Support SEL

Massachusetts Standard 2E: “Social and Emotional Learning Indicator: Employs a variety of strategies to assist students to develop social emotional competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.”

Pennsylvania Standard 1.A3: “Demonstrate an understanding of Social Emotional Development (self-regulation, self concept, self-awareness, resilience, and stress).”

6. Classroom Management and Restorative Practices

Classroom management is a critical practice in effective teaching,¹⁴ and the vast majority of educators we spoke with wished their preparation programs had better prepared them for it—from setting up routines and procedures, to creating a positive culture, to facilitating discussions. Only 27% of Minnesota teachers believe that their teacher preparation programs were very effective in training them in classroom management—once again, even lower than the nationwide rate of 51%.¹

Many teachers are also eager for professional development and support in non-punitive disciplinary practices. We know suspensions and expulsions have a negative impact on students and restorative practices—inclusive and non-punitive ways to respond to conflict and build community—are one approach to reducing exclusionary practices.¹⁵ When implemented well, school environments feel safer and there are lower suspensions rates. This is critical as Minnesota works to close persistent gaps facing students of color: a groundbreaking 2019 Stanford-led study found that, specifically for black students, there is a correlation between discipline disparities and achievement gaps, even after controlling for other variables.¹⁶ When one gap narrows, so does the other.

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13. Hamilton, L., Doss, C., & Steiner, E.. (2019). “Teacher and principal perspectives on Social and Emotional Learning in America’s Schools: Findings from the American Educators Panel.” Creative Commons Attribution 4.0 International Public License.

14. Marzano, R., Marzano, J., & Pickering, D. (2003). “Classroom Management that Works: Research-Based Strategies for Every Teacher.” Association for Supervision and Curriculum Development.

15. Augustine, C., Engberg, J., Grimm, G., Lee, E., Lin Wang, E., Christianson, K., & Joseph, A. (2018). “Restorative Practices Help Reduce Student Suspensions.” RAND Corporation.

16. Pearman, F., Curran, C., & Fisher, B. (2019). “Are Achievement Gaps Related to Discipline Gaps? Evidence from National Data.” AERA Open.

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18. National Center for Learning Disabilities and Understood. (2019). "Forward Together: Helping Educators Unlock the Power of Students who Learn Differently." National Center for Learning Disabilities.

19. Ibid.

7. Teaching English Learners

English Learners (EL) are Minnesota's fastest growing student population, now making up 8.4% of students. Moreover, aligned with research supporting more integrated academic instruction,¹⁷ ELs instruction in mainstream classrooms has become more common. Despite this growth, not all teachers have the skills and knowledge to keep up, and outcomes for EL students suffer, with only 12.5% of ELs in Minnesota proficient in reading in 2019 and 16.7% proficient in math.¹

Model Standards to Support English Learners

Arizona Standard 2E: "The teacher incorporates tools of language development into planning and instruction, including strategies for making content accessible to English language learners and for evaluating and supporting their development of English proficiency."

Indiana Standard 1.6: "Knowledge of processes of second-language acquisition and the ability to use differentiated strategies based on assessment data to support learning for English Learners."

8. Teaching Students with Special Needs

Most students with special needs spend the majority of their school days in a general education setting, making this an essential skill set for every teacher. Most preparation programs, however, do not adequately equip teachers for this reality. The vast majority of states—including Minnesota—do not articulate specific skills, knowledge, or training that general education teachers should have for working with students with special needs.¹⁸ This lack of training translates into how prepared teachers feel: only 30% of general education teachers strongly agree that they feel prepared to successfully teach students with learning disabilities.¹⁹ We also spoke to several educators who wished they had learned more about relevant policies like ADA and IDEA.

Several Minnesota educators we spoke to indicated that they wished their preparation programs had taught them how to identify and combat their implicit biases. According to one Minnesota educator, "We had a surface-level introduction to 'teaching for equity' but did not spend time unpacking our own biases or the accepted white-centric curriculum or teaching methods. I know my students and I would have benefitted from me growing sooner, faster, and more in that area."

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"I wish there had been more information on working with special education students and more on the special education evaluation process. I am not a special education teacher, and I've had to learn all of this on the job."

- Minnesota Teacher





20. Gilliam, W., Maupin, A., Reyes, C., Accavitti, M., & Shic, F. (2016). "Do early educators' implicit biases regarding sex and race relate to behavior expectations and recommendations of preschool expulsions and suspensions?" Yale University Child Study Center.

21. Moeny, J. (2014). "Study: 'Pygmalion Effect' Links Teacher Expectations to Student Success." Education Week.

22. Bonesrønning, H. (2008). "The Effect of Grading Practices on Gender Differences in Academic Performance." *Bulletin of Economic Research*, pages 245–64.

9. Addressing Implicit Biases

All teachers bring implicit bias to the classroom, but the impact can be mitigated when educators work to identify, unpack, and address them. When that doesn't happen, it drives racial discipline disparities²⁰ and impacts student achievement²¹ and engagement.²² A recent analysis found that, relative to their black colleagues, white teachers were 9% less likely to expect a black student to earn a college degree.²³ In a state where 96% of the teaching force is white, this puts black students at a significant disadvantage. At the same time, only 41% of Minnesota teachers (53% nationally) said their preparation programs effectively prepared them to teach students who have a different identity or background.¹

Model Standards to Address Implicit Bias

Alabama Standard 4.3: "Demonstrates and applies to one's own practice an understanding of how personal and cultural biases can affect teaching and learning."

Michigan Standard 5D: "Analyze the effects of teacher dispositions, decisions, and actions upon others (e.g. families, other personnel, and all students, including those with disabilities) and adjust interactions accordingly."

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“Preparing teachers (who are mainly white, middle-class women, at least in MN) to see their own biases and racist thoughts and actions and the impact that these have on students is critical.”

- Minnesota Teacher

10. Culturally Responsive Instruction

For students to reach their full potential, it's important they learn in environments that celebrate who they are. Culturally responsive instruction—a pedagogy that recognizes the importance of including students' cultural references in all aspects of learning—can support student achievement and mitigate the effects of negative cultural stereotypes.²⁴ Less than half of teachers nationally indicate that their preparation programs effectively prepared them to provide culturally responsive instruction.¹

However, some preparation programs are getting it right. Several teachers we spoke to—specifically those trained in alternative teacher preparation programs—lauded their training for intentionally preparing them to be culturally responsive educators. One Minnesota educator indicated their program trained them to “interrogate our identities and backgrounds and think about how that would impact our classroom practice and our students.”

23. Gershenson, S. & Papageorge, N. (2018). "The Power of Teacher Expectations." *Education Next*.

24. Cohe, G. & Garcia, J. (December 2008). "Identity, Belonging, and Achievement: A Model, Interventions, Implications." *Association for Psychological Science*.



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