

WHITE PAPER

FOCUSING SQUARELY ON STUDENTS:
**A theory of change for
NWEA professional learning**

By Chase Nordengren



Effective educational systems are those in which everyone involved focuses on improving student learning. Conversely, distraction from a focus on learning can quickly curtail the success of school improvement initiatives.¹ As a partner with schools around the country and around the world, NWEA® focuses first and foremost on the impact of our products and services on student learning. As part of that mission, our professional learning team designs and delivers high-quality learning experiences for teachers and administrators, building expertise across curriculum, instruction, and assessment.

Every educational service provider should be able to clearly articulate their theory of change: the relationship between their services and improvements in learning for students. A theory of change describes the relationship between an organization’s core work and the impact it looks to have on teachers, leaders, schools, systems, and students. Using a concrete logic model combined with the best research in the field, a well-considered theory of change supports efforts to better understand a program’s effectiveness and use this understanding to deepen collaborative relationships and support continuous improvement.

This document articulates our professional learning theory of change which puts focus squarely on student learning. By design, a theory of change does not and cannot focus on each and every possible impact of professional learning. Instead, the theory of change included here focuses on the key levers activated by effective professional learning that drive instructional improvement. Specifically, this theory of change connects the following elements:

- Effective and classroom-relevant professional learning
- The knowledge and skills that help teachers turn learning evidence into instructional action
- Measures of the impact of that professional learning

In detailing these connections, the theory of change looks to illuminate a model for high-quality practice that guides NWEA professional learning in its commitment to partnering to help all kids learn.

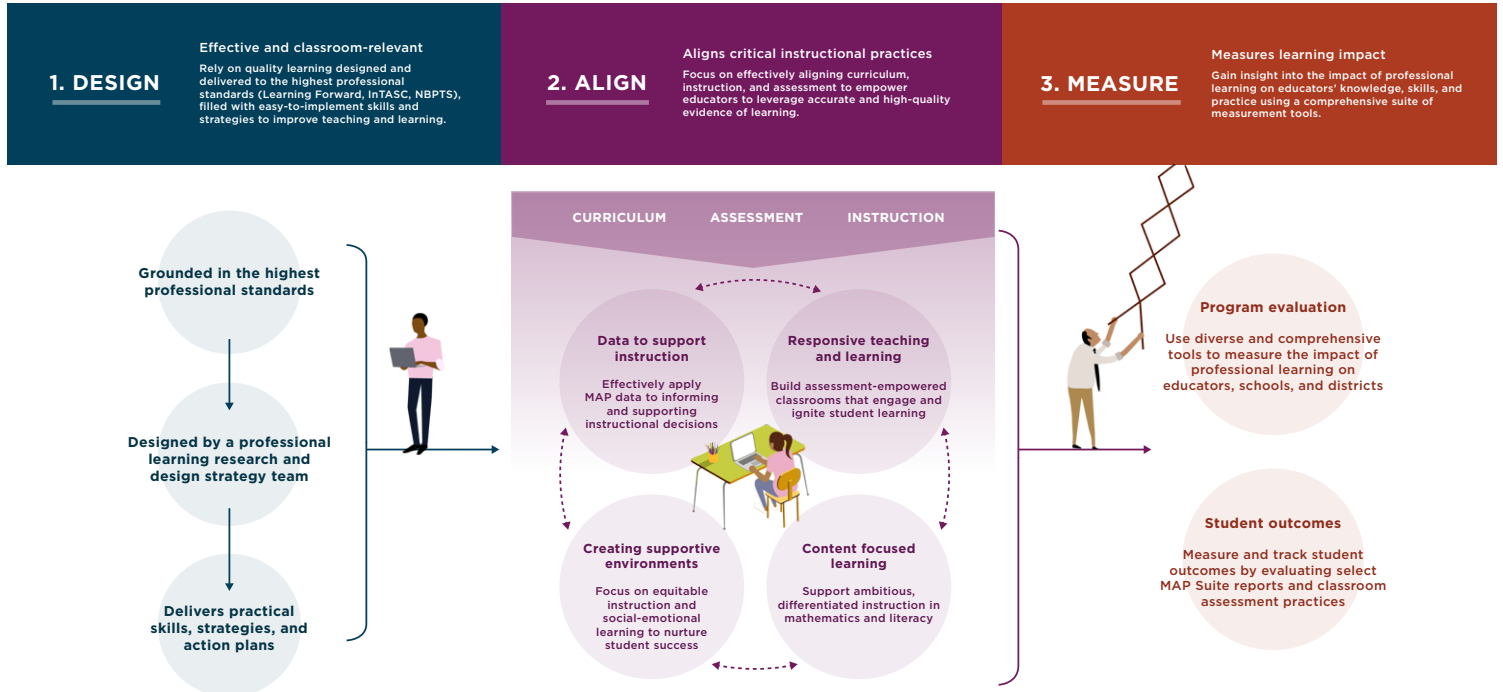


Figure 1. Professional learning that drives instructional change

A vision for equitable student learning

At the foundation of our theory of change is an understanding of high-quality, equitable student learning¹. At NWEA, we believe it is critical to understand learning through the lenses of both growth and proficiency:

- Measuring student growth is the best way to account for what students know and can do irrespective of their grade level. For students who start from two or three grade levels behind their peers, growth measures and differentiated instruction account for and celebrate the achievement of students working diligently to catch up and the commitment of teachers to meeting their students' individual needs. Similarly, growth measures continue to challenge students above grade level to grow to their full potential.
- Measuring student proficiency on grade level and exposing all students to grade-level content is an essential component of providing equitable educational opportunities to all and making real the belief that all students can learn at high levels. Additionally, access to grade-level content with appropriate scaffolding supports students as they grow to meet proficiency standards.

We do not ascribe to the belief that educators must choose either to address growth or to address proficiency. Within an instructional year, month, and day, students should have the opportunity through a variety of learning experiences to interact with grade-level content, be exposed to grade-level expectations, and be provided individualized supports that meet them where they are.

The guide to marrying growth and proficiency is rigorous content standards. Content standards ultimately set the bar of equity by defining what we believe students should know to be successful and well-informed citizens. Further, sitting outside the inherent constraints of any particular assessment, content standards enforce a demand for complex demonstrations of both conceptual and applied knowledge. In the United States, the adoption of high-quality college- and career-ready standards represents a landmark moment in building national consensus for a rigorous vision for what students should know and be able to do. Using information in the standards *both* to scaffold learning and to set high grade-level expectations is critical to fulfilling their promise to revolutionize American education.

Finally, NWEA believes education should be differentiated for the abilities, needs, and motivations of individual students. The complexity and rigor contained within academic content standards require a variety of knowledge and skills that must be introduced, practiced, reinforced, and linked repeatedly over time. Through small-group instruction, student goal setting, formative assessment, and other key strategies, we believe it is possible to provide students unique paths to proficiency focused on building these skills without sacrificing rigor or jeopardizing educational equity. In advocating for these strategies in our professional learning and research, we advance the pursuit of an educational system that can provide an exceptional learning experience for every student.

Effective and classroom-relevant professional learning

Our design and delivery of high-quality professional learning begins with reference to three sets of professional standards that articulate best practices in professional learning, teaching and learning, and effective school systems.

- Articulated by Learning Forward, the Standards for Professional Learningⁱⁱ outline best practices in professional learning that improve results for all students. These best practices include the following:
 - Embedding learning in effective learning communities
 - Relying on skillful leadership
 - Supporting priority materials use
 - Leveraging a variety of sources and types of data
 - Integrating theories of human learning
 - Applying support for implementation
 - Aligning outcomes with educator performance and student curriculum standards

By co-constructing our professional learning with our partners, our professional learning delivery and design models focus on building the skills of groups of educators to apply data to the specialized needs of their students.

- The InTASC Model Core Teaching Standards developed by the Council of Chief State School Officersⁱⁱⁱ describe the core skills that teachers need in order to prepare all students for college and career. Among other elements, they emphasize the need to develop assessment literacy, differentiate learning for all students,

¹Our commitment to and focus on educational equity is described in detail in the Learning and Improvement Services Equity Statement: https://dpsdol.nwea.org/public/equitypl/EquityPL_EquityStatement_External.pdf

focus on the application of knowledge and skills, and build a collaborative culture. Particularly in the area of assessment literacy, but also in elements of instructional practice and school culture, NWEA professional learning focuses on developing concrete skills that support the growth of 21st-century educators.

- The Every Student Succeeds Act (ESSA) of 2015 provides an ambitious definition of professional development that aligns professional learning with school improvement strategies. ESSA calls for professional learning that is sustained over a long period and that is job-embedded, data-driven, and classroom-focused. Further, it describes professional development as aligned with both evidence and the academic goals of schools, local education agencies, and states. This definition, in line with much of the contemporary work concerning professional learning effectiveness,^{iv} drives our innovation in bringing new modes of learning to our partners with frequent opportunities for practice and application.

The elements that are core tenets of all three sets of standards—empowering professional learning communities, applying active learning techniques, offering frequent opportunities for feedback and reflection, and regularly using research and data—form the core of our professional learning practice. Through the spirit of these standards, and the research that undergirds them, NWEA professional learning has the opportunity to dramatically shift the knowledge, skills, attitudes, and behaviors of educators, improving outcomes for their students.

One of the most critical indicators of professional learning that improves student outcomes is the time teachers invest. In Yoon and co-authors' review of evidence on the effectiveness of professional learning,^v programs that boosted student outcomes involved teachers for 49 hours on average. NWEA offers a variety of options for educators seeking professional learning, including full- and half-day workshops, instructional coaching, small-team blended learning, and virtual workshops and consulting services. Our implementations with the most impact are often those in which teachers interact with professional learning most frequently.

Aligning curriculum, instruction, and assessment

To change how students learn, building their teachers' knowledge and skills is not enough. Schools must provide students the "opportunity to learn" by ensuring the work of effective educators is applied in

an educational ecosystem that supports and advances growth, proficiency, and equity for all students. Barriers to progress manifest in a variety of ways: narrowing of the curriculum to meet the demands of summative assessments, a failure to monitor progress on what students are taught, a lack of instructional differentiation to serve students individually, and the like.

These types of barriers represent a misalignment^{vi} between the intention or the focus of essential elements in students' educational experiences. In misaligned educational systems, the efforts of well-intentioned individuals are applied to inconsistent goals, misleading evidence, or ambiguous implementation.^{vii} Aligned systems, in contrast, use a variety of evidence-based tools and techniques to drive positive educational outcomes toward a set of common goals.

Our professional learning supports four broad categories of professional practice to help our partners build alignment among curriculum, instruction, and assessment:

- Data to support instruction, focused on the **use of NWEA assessments** as part of a balanced assessment system to plan instruction, guide instructional differentiation, and help students take ownership of their learning.
- Responsive teaching and learning, focused first on providing the foundations of a successful classroom assessment practice for teachers through our suites on **assessment-empowered classrooms** and **responsive learning cycles**. This learning provides a grounding for educators to identify, use, and analyze assessments of all types to support day-to-day monitoring of students' learning progress.
- Content focused professional learning, supporting ambitious, differentiated, and equitable instruction in **mathematics and literacy**.
- Creating supportive learning environments, focused on providing educators tools to eliminate barriers to student success. Here, NWEA professional learning lends particular focus to **equity-empowered learning** through the appropriate use of student data and culturally responsive and sustaining teaching, and learning centered on **student well-being and connection (SEL)** that empowers students as independent learners.

While these practices do not represent the whole of a well-aligned system, they connect to a set of interrelated skills, behaviors, and dispositions that drive improved outcomes for students. They refer to several themes identified in Hattie's review of the main ways educators influence student outcomes, including collective teacher efficacy, teacher credibility, scaffolding, evaluation and reflection, and providing

appropriately challenging learning goals.^{viii} Most importantly, these practices help ensure that all stakeholders in a school system are focused on building growth and mastery for each student.

Understanding changes in student outcomes

Finally, a high-quality professional learning experience aligning curriculum, instruction, and assessment should ultimately produce stronger learning outcomes for students. “It is obviously most important that what teachers are taught reflects the practices that can actually make a positive difference for student learning.”^{ix}

Unlike many educational interventions, students never interact with professional learning directly. Instead, the opportunity for professional learning to affect outcomes for students relies on how teachers and leaders change from participating in it. By measuring these impacts, we look to clarify the relationship between professional learning and changes in student outcomes, while also providing a richer set of data from which to consider program iteration and improvement.

Thomas Guskey^x provides a sophisticated approach for understanding these impacts. Guskey proposes five levels of impact for professional learning interventions:

1. Participants’ reaction (how satisfied participants are with all aspects of the experience of professional learning)
2. Participants’ learning (what knowledge and skills participants gain from professional learning)
3. Organizational support and change (how leadership advocates for and supports implementation of the knowledge and skills)
4. Participants’ use of new knowledge and skills (how participants apply new knowledge and skills in new behaviors)
5. Student learning outcomes (how professional learning impacts the cognitive, affective, and psychomotor experience and performance of students)

Here, we focus on immediate impacts from professional learning linked to changing educational systems: participants’ learning, organizational support and change, and use of new knowledge and skills.

With our partners, NWEA is pioneering new measures to understand these levels as part of our learning evaluation services strategy. Through surveys, walkthroughs, document collection, and other procedures, we look to

systematically document the influence of professional learning on these three criteria.

Because students do not interact with professional learning directly, and because of the myriad other factors influencing students on a daily basis, directly measuring the impact of professional learning on student outcomes is a difficult undertaking. Further, the differences presented by each classroom, school, and district make direct comparisons inappropriate. Nonetheless, we do believe in the power of appropriately designed professional learning to produce positive changes in student assessment scores, of the substantial magnitudes recorded by Darling-Hammond and colleagues.^{xi}

Further, we recognize that these scores tell only part of the story. Professional learning has the ability to fundamentally change many of the ways students experience school, from the attitudes of their teachers, to the level of ownership they take of their learning, to their overall feelings of well-being. These cognitive, affective, and psychomotor outcomes^{xii} are equally important elements of understanding the impact of professional learning on students.

In the theory of change, we identify three methods of measuring the impact of professional learning on student outcomes:

- Changes in student achievement measured by the MAP[®] Suite of assessments.
- Changes in student achievement measured by state summative assessment scores.
- As part of our learning evaluation services strategy, a portfolio through which teachers provide artifact evidence of classroom practices related to assessment use. Focused on key classroom practices advanced by NWEA professional learning, this tool is designed to capture evidence of how students interact with evidence of their learning.

In parallel with this theory of change, we have developed learning evaluation services that capture both the immediate and the long-term possible impacts of NWEA professional learning. These services recognize the difficulty in capturing the effects of a professional learning program in any one outcome, instead relying on a variety of outcomes that measure or are related to improvements in student learning. In so doing, we hope to continually influence the academic and practice literatures underlining the importance of professional learning in instructional improvement and describing new techniques for measuring its effectiveness over time.

Summary

Developing a theory of change is a process of refinement: beginning from all possible influences on one's intended outcome, a theory of change identifies those influences deemed most influential and most relevant to the organization. At NWEA, we recognize the central importance of a focus on learning in improving the work of schools.

NWEA professional learning fills the critical role in that process of building the capacities of educators to teach student bodies that are increasingly diverse in their origins, assets, needs, and life trajectories. We recognize that these educators are the ultimate experts on their students. To create long-term and sustained educational change, therefore, professional learning provides the tools and techniques that empower those educators to act on their expertise and provide equitable, differentiated, and rigorous educational experiences for all students.

- i. Min Sun, Jing Liu, Junmeng Zhu, and Zachary LeClair, "Using a Text-as-Data Approach to Understand Reform Processes: A Deep Exploration of School Improvement Strategies," *Educational Evaluation and Policy Analysis* 41, no. 4 (2019): 510-536, <http://doi.org/10.3102/0162373719869318>.
- ii. Learning Forward, *Standards for Professional Learning* (Oxford, OH: Learning Forward, 2011).
- iii. Council of Chief State School Officers, *INTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0* (CreateSpace: 2013), <http://books.google.com/books?id=aDHunQEACAAJ&hl>.
- iv. Linda Darling-Hammond, Maria E. Hyler, and Madelyn Gardner, *Effective Teacher Professional Development* (Palo Alto, CA: Learning Policy Institute, 2017), <https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report>.
- v. Yoon, Kwang S., Teresa Duncan, Silvia W.-Y. Lee, Beth Scarloss, and Kathy L. Shapley, *Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement, Issues & Answers Report*, REL 2007-No. 033 (Washington, DC: US Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest, 2007), https://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/REL_2007033.pdf.
- vi. Martone, Andrea, and Stephen G. Sireci, "Evaluating Alignment Between Curriculum, Assessment, and Instruction," *Review of Educational Research* 79, no. 4 (December 2009): 1332-1361, <http://doi.org/10.3102/0034654309341375>.
- vii. Baker, Eva L., *Aligning Curriculum, Standards, and Assessments: Fulfilling the Promise of School Reform*, CSE Report 645 (Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing, 2004), <https://files.eric.ed.gov/fulltext/ED483412.pdf>.
- viii. Hattie, John, *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement* (New York: Routledge, 2008).
- ix. Darling-Hammond, Linda, Maria E. Hyler, and Madelyn Gardner, *Effective Teacher Professional Development* (Palo Alto, CA: Learning Policy Institute, 2017), <https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report>.
- x. Guskey, Thomas R., *Evaluating Professional Development* (Thousand Oaks, CA: Corwin Press, 2000); and Guskey, Thomas R., "Does It Make a Difference? Evaluating Professional Development," *Educational Leadership* 59, no. 6 (March 2002): 45-51.
- xi. Darling-Hammond, Hyler, and Gardner, *Effective Teacher Professional Development*.
- xii. Guskey, *Evaluating Professional Development*.

Chase Nordengren. *Focusing Squarely on Students: A Theory of Change for NWEA Professional Learning*. Portland, OR: NWEA, 2021. <https://www.nwea.org/resource-library/professional-learning>.



NWEA is a not-for-profit organization that supports students and educators worldwide by providing assessment solutions, insightful reports, professional learning offerings, and research services. Visit [NWEA.org](https://www.nwea.org) to find out how NWEA can partner with you to help all kids learn.

© 2021 NWEA. NWEA and MAP are registered trademarks of NWEA in the US and in other countries. The names of other companies and their products mentioned are the trademarks of their respective owners. Illustrations © Adam Simpson and Heart 2017.