

High-Impact Teaching Strategies (HITS) for Foundational Learning

An Overview



High-impact teaching strategies (HITS), also referred to as high-leverage practices, are core pedagogical practices that help students understand content while also supporting their social-emotional development.¹ These teaching practices can demonstrably impact student learning outcomes in both literacy and numeracy.² Research has resulted in multiple sets of HITS, and some researchers have developed resources and tools to aid teachers in their use.³ This document presents a synthesis of this evidence and suggests a progression or continuum of evidence-based strategies to (1) facilitate teacher take-up of HITS following focused pre- and in-service training or professional development activities such as coaching and communities of practice and (2) strengthen teacher professional development programs and systems in order to improve foundational literacy and numeracy outcomes more effectively.

Whether through training workshops, monthly community of practice meetings, or regular classroom observations by teacher learning facilitators (coaches, trainers, peers, or mentors) combined with coaching, professional development is most effective when it is focused, incremental, and tailored to the needs of individual teachers. Contextual factors—and differences in the experience and skill levels of individual teachers—must be carefully considered when deciding which HITS to begin with and focus on. With this contextual framing in mind, the Science of Teaching HITS mini-guides are developed around five domains and along a continuum of tiers, as shown in the table below.

Professional development activities that support teachers in mastering the specific strategies listed under Tier 1 are likely to result in improved instruction and learning outcomes. As teachers practice, apply, and master the basic strategies of Tier 1 and move toward the more “advanced” Tiers 2 and 3 in each category, they will be empowered with a full set of strategies to reach and support more students. Over time (as measured in years, as opposed to weeks or months), a professional development program that follows a tiered approach can help teachers move toward more depth of instructional mastery (higher tiers) and significantly improve the quality of their teaching, which will ultimately help more students develop a deeper understanding and mastery of foundational literacy and numeracy skills and concepts.

¹ Ball & Forzani (2010).

² Ambrose et al. (2010); Danielson (2022); Rosenshine (2012).

³ Danielson (2022); Molina et al. (2022); Pushparatman et al. (2021); Victoria State Government (2020).

HIGH-IMPACT TEACHING STRATEGIES (HITS)				
Strategy domains		Tier 1: Basic strategies	Tier 2: Developing strategies (built upon Tier 1 strategies)	Tier 3: Advanced strategies (built upon Tier 1 and 2 strategies)
Learning Environment		Teacher establishes clear rules and routines to support learning and create a positive learning environment.	Teacher uses and supports positive interactions in the classroom (teacher-student and student-student).	Teacher organizes students to work in pairs and small groups to enhance collaboration, to build teamwork, and to promote a sense of belonging.
Student Engagement in Learning		Teacher gives all students, including pairs/small groups, regular time for the practice of new skills .*	Teacher uses questioning to build and deepen student understanding of new content.	Teacher plans for the strategic use of partner and small-group work for collaborative learning activities.**
Knowledge Progression and Connections		Teacher plans with and states the lesson objective and links new content to students' background (prior knowledge).	Teacher provides a daily review and links content to previous learning .	Teacher purposefully sequences lesson objectives and adjusts the teaching sequence as needed.
Assessment-Informed Instruction		Teacher routinely monitors learning by checking for understanding during instruction and giving actionable feedback to students.	Teacher modifies content and instructional strategies based on evidence of learning collected through formative assessment.	Teacher provides differentiated instruction and remediation to address learning gaps.
Instructional Approach	Numeracy	Teacher provides explicit models and explanations of math concepts and skills, followed by student practice of modeled skills.	Teacher uses questioning and other interactive approaches to build student understanding when modeling and explaining math concepts and skills. <i>Modeling/explanation is followed by student practice.</i>	Teacher provides opportunities for students to explore concepts and then draws on their ideas when modeling and explaining concepts and their application.
	Literacy	Teacher provides explicit models and explanations of new skills and concepts, followed by student practice of modeled skills.	Teacher adds activities to construct meaning (or build knowledge) together with students.	Teacher gives students opportunities to apply skills in meaningful ways .

Notes:

*Tier 1: Teacher groups students to engage all children in the learning activity, especially when materials are being shared.

**Tier 3: Teacher purposefully groups students to engage all children through homogenous or heterogenous grouping. Homogenous grouping can be used with students working at a similar, medium level to learn at a higher level together. Heterogeneous grouping is used to provide peer support to students who may be struggling with new content and skills.

HITS Strategy Domains

Learning Environment: For successful learning to occur, teachers must cultivate a respectful, inclusive, and affirming classroom culture for students.⁴ Specific strategies for achieving this include establishing rules and routines that support learning, promoting collaboration and teamwork, and reinforcing positive interactions among peers and adults through activities that contribute to and strengthen students' sense of belonging.

Student Engagement in Learning: To maximize learning, teachers must provide regular opportunities for students to practice what they have learned, as well as time to work with classmates to develop more in-depth understanding. They should also use questioning to engage individual students with new content.

Knowledge Progression and Connections: By using stated objectives to plan lessons and

⁴ Danielson (2022).

sharing the lesson objective with students, teachers establish a clear focus for learning for their students and for themselves as teachers. Linking new skills and content so that students make connections to their own background knowledge of the subject as well as previous learning improves student uptake of new content. Having a strong understanding of progression also helps teachers adjust instruction as needed.

Assessment-Informed Instruction: In addition to monthly, termly, and yearly summative exams, teachers should use formal and informal assessment throughout lessons to monitor student learning, to give focused feedback, and to adjust content and instruction to meet the needs of all students.

Instructional Approach: To ensure that children master foundational literacy and numeracy, evidence-based methods should include the modeling and explanation of new skills and concepts—incorporating student participation and questioning to deepen understanding—and regular practice time for students. Specific approaches differ between reading and math, given differences in the content and how children develop understanding and skills in the two subject areas. A significant focus in reading is on developing children’s fluency in basic reading skills (particularly phonics skills). Success in mathematics depends on building strong conceptual understanding and procedural fluency, and students can often benefit from opportunities to explore and discuss concepts before being presented with explicit models and explanations.

HITS Mini-Guides

Based on these five domains, Science of Teaching has developed mini-guides that detail how educators, especially those in low- and middle-income countries, can apply the HITS strategies in their classrooms. Two mini-guides for numeracy and literacy support the domains of instructional approach and assessment-informed instruction and include specific strategies in each tier that guide teachers on which HITS to focus on. Other guides present strategies for establishing a positive learning environment, engaging students in the learning process, and utilizing knowledge progression and connections to plan and deliver instruction.

Key terms used in this document and the mini-guides:

Assessment-informed instruction: “[T]he activities undertaken by teachers—and sometimes students, head teachers, and coaches—that provide timely information to track progress and modify subsequent teaching and learning activities,” including formative assessment strategies.⁵

Coaching: On-site, job-embedded, sustained professional development for teachers in which coaches are colleagues who support individual teachers and groups of teachers in gaining the knowledge and instructional skills needed to improve teaching and learning.⁶

Community of practice or teacher learning circle: A space where teachers meet to discuss their instructional practice, discuss and solve problems, practice strategies, and reflect together. Meetings may take place among teachers within a single school or involve teachers from a cluster of schools.⁷

Differentiated instruction: Pedagogical practices that allow a teacher to tailor instruction to meet varying student learning needs within a class.⁸

Remediation: Additional targeted support, concurrent with regular classes, for students who

⁵ Ralaingita et al. (2021).

⁶ USAID (2014).

⁷ Ralaingita (2020).

⁸ Ralaingita et al. (2021).

require short-term content or skill support to succeed in regular formal programming.⁹

Sense of belonging: “[T]he extent to which students feel personally accepted, respected, included, and supported” by peers and teachers.¹⁰

Student engagement in learning: Students’ participation in learning, which teachers can encourage through collaboration and teamwork, the use of instructional materials and resources, rich learning experiences, and opportunities for students to reflect on their learning and think critically.¹¹

References

- Ambrose, S., Bridges, M., DiPietro, M., Lovett, M., & Norman, M. (2010). *How learning works: 7 research-based principles for smart teaching*. Josse-Bass. <https://firstliteracy.org/wp-content/uploads/2015/07/How-Learning-Works.pdf>
- Ball, D., & Forzani, F. (2010). Teaching skillful teaching. *Educational Leadership: Journal of the Department of Supervision and Curriculum Development*, 68, 40–45. <https://www.ascd.org/el/articles/teaching-skillful-teaching>
- Danielson, C. (2022). *The framework for teaching: At a glance*. Danielson Group.
- Ibarra, B. N. (2022). Understanding SEL to create a sense of belonging: The role teachers play in addressing students’ social and emotional well-being. *Current Issues in Education*, 23(2). <https://doi.org/10.14507/cie.vol23iss2.2049>
- Molina, E., Pushparatnam, A., Melo Hurtado, C. E., Wilichowski, T. M., Del Toro Mijares, A. T., Ding, E. Y. Z., . . . Singal, N. (2022). *Teach primary: Observer manual*. World Bank. <http://documents.worldbank.org/curated/en/872291641201520569/Teach-Primary-Observer-Manual>
- Pushparatnam, A., Mahajan, L., Molina, E., Del Toro Mijares, A. T., Ding, E., & Wilichowski, T. (2021). *Foundational teaching skills guide*. World Bank. <https://documents1.worldbank.org/curated/en/268121613971613659/pdf/Foundational-Teaching-Skills-Guide.pdf>
- Ralaingita, W. (2020). *Structured pedagogy guide 6: Teacher professional development: Ongoing teacher support*. Developed by RTI International under the Implementing the Science of Teaching grant through funding from the Bill & Melinda Gates Foundation. <https://scienceofteaching.site/structured-pedagogy/#how-to>
- Ralaingita, W., Jordan, R., Long, E., Piper, B., & Fesmire, M. (2021). *Assessment-informed instruction: Classroom level*. Developed by RTI International under the Implementing the Science of Teaching grant through funding from the Bill & Melinda Gates Foundation. <https://scienceofteaching.site/assessment-informed-instruction/#how-to>
- Rosenshine, B. (2012). Principles of instruction: Research-based strategies that all teachers should know. *American Educator*, Spring, 12–19. <https://www.aft.org/sites/default/files/Rosenshine.pdf>
- USAID. (2014). *The power of coaching: Improving early grade reading instruction in developing countries*. https://pdf.usaid.gov/pdf_docs/pa00jv67.pdf
- Victoria State Government. (2020). *High impact teaching strategies: Excellence in teaching and learning*. Department of Education and Training. <https://www.education.vic.gov.au/Documents/school/teachers/support/high-impact-teaching-strategies.pdf>

⁹ Ibid.

¹⁰ Goodenow & Grady (1993), cited in Ibarra (2022).

¹¹ Danielson (2022).