HLP 21:
Teach Students to Maintain and Generalize New Learning Across Time and Settings

High-Leverage Practices
for Students with Disabilities

A hallmark of students with disabilities is their struggle with learning and applying new content and skills in settings outside of where they were taught. Students with disabilities therefore need to be explicitly taught how to use knowledge and skills learned in one setting in novel settings and situations, as appropriate. Use of explicit instruction (HLP 16) and feedback (HLP 8/22) are key, but so is collaboration with colleagues (HLP 1) in order to be planful about helping students apply key knowledge and skills across settings. Teachers promote maintenance by systematically using schedules of reinforcement, providing frequent material reviews, and teaching skills that are reinforced by the natural environment beyond the classroom.

This resource is intended to support school leaders looking to embed the HLPs in professional development, implementation, teacher observation and feedback efforts at their school site.

The major source for content within this implementation guide is the chapter by Mary Catherine Scheeler, David L. Lee, and Andrew M. Markelz in *High-Leverage Practices in the Inclusive Classroom*; the book *High-Leverage Practices in Special Education: The Final Report of the HLP Writing Team*, and content on **www.highleveragepractices.org**.

Teachers Who Effectively Promote Active Student Engagement

Promote Generalization of Skills/Behaviors
- Apply the same techniques that successfully changed behavior in one setting to all settings where the target behavior is desirable (i.e., sequential modification).
- Help students to recognize reinforcement available in the natural environment and to recruit reinforcers or recognize subtle forms of "social reinforcement."
- Use sufficient exemplars in different settings and contexts and with different people when teaching students to demonstrate a behavior/skill.
- Use indiscriminable contingencies. Indiscriminable contingencies are when students do not know when reinforcement will happen, thus promoting the likelihood that desirable behaviors continue.
- Deliberately program similar stimuli in the training setting and the setting where generalization is desired.
- Provide students training in self-management, teaching students to monitor and report on their own generalization of behavior, to mediate generalization of skills.
- Use verbal instructions to promote generalization.

Promote Generalization of Skills/Behaviors
- Use reinforcement schedules to ensure that desirable behaviors persist across settings. These may include:
  - Continuous Schedules – a reinforcer is provided each time a desired behavior occurs
  - Intermittent Schedules – a reinforcer is provided after a certain number of responses (ratio schedule), or after a specific amount of time (interval schedule)
- Thin schedules of reinforcement, moving from continuous schedules to intermittent schedules as students continue to demonstrate success with a behavior/skill.
- Build in opportunities for overlearning trials and distributed practice.

- Provide students with instruction in self-management skills (e.g., goal setting, self-evaluation and reflection, self-reinforcement, and self-talk).

Use Data to Monitor Generalization and Maintenance
- Consider the time and place that is most appropriate for collecting data.
- Collect data on the behavior of interest reliably and over time, using a clear definition of the target behavior.
- Select a data collection system that will give the clearest picture of student performance.
- Summarize data using graphical displays.
- Examine data from baseline and instruction phases to compare differences in student performance and reviewing methods for increasing generalization and maintenance as needed.

Tips for School Leaders to Support Teachers
- Provide educators with instruction, professional development and/or coaching in selecting and implementing strategies that promote generalization and maintenance of skills/behaviors.
- Observe and provide feedback and/or coaching on the practices that teachers use to support students' generalization and maintenance of skills/behaviors.
- Encourage and facilitate collaboration between all professionals in the school building, helping all understand that promoting generalization and maintenance among students is a team-oriented process.
- Provide educators with instruction, professional development, and/or coaching in teaching self-management behaviors to students.

Questions to Prompt Discussion, Self-Reflection, and Observer Feedback

- What are some important considerations when planning and implementing strategies that support generalization and maintenance of skills?
- Why is assessment so critical to promoting generalization and maintenance of skills?
- Teaching self-management skills to students with disabilities can be very challenging and time consuming, so what is the value of doing this anyway?
- Why is it important to gradually fade reinforcers, with the end-goal of only providing natural reinforcement? How can you support students with making this shift?

References & Additional Resources

Online Resources

High-Leverage Practices: A Professional Development Guide for School Leaders
A downloadable online guide providing school leaders, including administrators, principals, mentors and coaches, with practical tools for engaging staff members in learning about how high-leverage practices can enhance student learning in the school and district.

Journal Articles

Barczak, M. A. (2019). Simulated and community-based instruction: Teaching students with intellectual and developmental disabilities to make financial transactions. *TEACHING Exceptional Children, 51*(4), 313–321. https://doi.org/10.1177/0040059919826035

Burt, J. L., & Whitney, T. (2018). From resource room to the real world: Facilitating generalization of intervention outcomes. *TEACHING Exceptional Children, 50*(6), 364–372. https://doi.org/10.1177/0040059918777246

Patterson, D. R., & Hicks, S. C. (2020). Teaching math vocabulary in small groups to youth with autism. *TEACHING Exceptional Children, 52*(6), 372–380. https://doi.org/10.1177/0040059920924688

Vaughn, S., Bos, C. S., & Lund, K. A. (1986). ... But they can do it in my room: Strategies for promoting generalization. *TEACHING Exceptional Children, 18*(3), 176–180. https://doi.org/10.1177/004005998601800305

High-Leverage Practices
for Students
with Disabilities