

Meeting the Needs of All Learners

Teaching with Multiple Modalities

Have you ever listened to a teacher talk about a really interesting topic, but then, maybe twenty minutes into it, you start to lose focus? A few minutes later, you realize you aren't following at all, and you start watching the clock? Now imagine that the teacher pauses and asks you to stand up, walk around the room, and find someone you haven't met. Then she projects a thought-provoking photo and asks you to discuss it with that person. And suddenly, you wake up, and you're back in the game and back on track with learning. This is the power of multimodal teaching. By switching the modality used to deliver new information, your educator re-engaged you.

There are many ways a person can take in new information or learn. In the 1980s, psychologist Howard Gardner identified the following multiple intelligences:

- **Bodily/kinesthetic**—learning by moving your body
- **Visual/spatial**—understanding by relating to physical items
- **Verbal/linguistic**—using language, both written and verbal
- **Logical/mathematical**—conceptualizing relationships among symbols, processes, and actions
- **Interpersonal**—interacting with others
- **Intrapersonal**—solo work such as journaling
- **Musical**—sensitivity to sounds as well as the emotions music conveys

Gardner later added spiritual and naturalist intelligences. His central claim was that “different students have different modes

of learning, and their learning could be improved by matching one's teaching with that preferred learning mode” (Riener and Willingham 2010).

Riener and Willingham later debunked the second part of Gardner's theory—the part about matching your teaching style to your students' individual learning styles (See Recommended Resources below to learn more). Nonetheless, the first part of Gardner's theory remains essential for effective teaching: people learn in a variety of ways. These are sometimes referred to as intelligences, learning styles, or learning modalities. The more variety we can offer in the way we deliver information, the more effective we will be in educating all our students.

Say, for example, you're teaching a lesson about plant parts that involves a lot of *you* talking and your students listening (linguistic). They could quickly become disinterested. Therefore, you will be more effective with all your students if you switch it up by having them draw each part (visual/spatial), get up and act out the plant parts (kinesthetic), look around the garden for living examples (naturalist), and sing the song “Six Plant Parts” (musical). This is the key lesson for educators: Mix it up to make it stick! Remember this as you consider using the 5 Es framework to structure your lesson.

Recommended Resources

- FoodCorps webinar: “Learning Through Music, Art, and Story”
- Gardner's multiple intelligence theory
- “The Myth of Learning Styles” by Cedar Riener and Daniel Willingham (Change: The Magazine of Higher Learning, August 2010)

Informing Your Teaching Practice with Child Development Characteristics

Students have different learning styles, personalities, and needs. It's important not to put children in a box according to their age or any other information you may know about them. It is important to keep in mind that children develop new skills and abilities at different paces. One of the exciting opportunities of

hands-on learning is that it can be a particularly engaging way for students to engage in learning at every level, especially if they struggle in traditional classroom settings. You'll find more tips about specifically working with students with special needs below. Here you'll find some general tips to keep in mind when you are working with students of a specific age or grade based on general developmental stages.

GRADES K-3 (AGES 5-9)	
Learning to be friends	Focus on small-group activities rather than individual activities.
Want to be liked by adults	Let students know that they've done a good job.
Learn best when physically active	Lead activities that encourage movement, physical activity, and running.
Easily motivated; don't like to fail	Provide encouragement; foster cooperation, not competition.
Concrete thinkers; more interested in doing than the result	Focus on process rather than product and on short activities that can be accomplished within the lesson.

GRADES 4-8 (AGES 9-13)	
Acceptance by peer group and joining clubs is important; students look up to older youth.	Allow for opportunities for role modeling by older youth; use peer group to recognize good work; don't allow put-downs. Help them identify their own strengths.
Students show independence and want to find their own solution; they begin to think abstractly and become interested in specific subjects of interest.	Offer a wide array of activities to ensure that many students can succeed. Offer simple, short directions and brief learning experiences.
Can discuss current events in the community and world.	Allow for opportunities to engage in community-based activities and problem solving.
Students are still active and may go through a growth spurt. Often this happens to females before males.	Provide active learning experiences. Avoid competitions between sexes, and don't compare students to one another.

Working with Students with Disabilities

As part of our commitment to equity, diversity, and inclusion, FoodCorps service members, fellows, and staff must demonstrate the unwavering belief that every child can learn. We must also recognize that each child has unique needs and talents and makes progress at his or her own pace. During the course of your service, you will likely work with students who have disabilities. Part of serving with equity means that we acknowledge differences in student abilities and learning styles and work to create opportunities for every child to learn and contribute to his or her community.

Students with disabilities—those who experience challenges related to learning, language, mobility, or social–emotional development—often have the greatest difficulty achieving success in a traditional classroom setting. They may struggle to stay focused for long periods of time, to keep up with their peers in math or reading, to handle frustration, or to make friends with their classmates. For these students, the nontraditional, hands-on garden and food-based learning experiences that you provide can offer new opportunities to achieve success in school. We hope that you will seize this opportunity to help those students—and their peers and teachers—see and appreciate the talents that shine in the garden and with experiential food-based education.

The federal Individuals with Disabilities Education Act, which was reauthorized in 2004, requires that students with identified disabilities be provided with a “Free and Appropriate Education” within the “Least Restrictive Environment.” This means that, to the maximum extent possible, students with disabilities must be educated in an inclusive environment, participating in classroom activities alongside their regularly abled peers.

Tips for serving students with disabilities

- ✓ Use “child-first” language when speaking with or about children with disabilities. This type of language puts the child before the disability. For example, she is a “child with autism,” rather than an “autistic child.”
- ✓ Reach out to the lead teacher in advance of your lesson to find out about the variety of student needs and abilities and to learn about particular strategies or supports that are most effective for individual students.
- ✓ Connect with the special education coordinator/director or teachers at your school to learn more about the programming for students with special needs. If possible, offer support for hands-on learning opportunities in the garden or classroom.
- ✓ Remember that inclusion with equity means that not every child can or should be working on the same skills or activities at the same level. Be flexible, and whenever possible, differentiate your approach to meet the needs of individual students.
- ✓ Present information in multiple modalities so that all students can access the information regardless of learning style or level. For example, you may explain a concept verbally (for auditory learners), while using pictures, diagrams, or videos (for visual learners) and creating opportunities for practice that allow students to engage their other senses (for kinesthetic learners).

Terms to know when serving students with diverse needs and abilities

- **Modifications:** These are changes to the learning goal or objective. Modifications could change the instructional level, the content or curriculum covered, the performance criteria (objective), or the assignment structure.
- **Differentiation:** This is when an educator uses a variety of teaching techniques,

instructional modifications, and accommodations to instruct a group of students with diverse learning needs in the same course, classroom, or learning environment.

- **Accommodations:** These are changes to the way a student receives information or is assessed on his or her learning without changing the learning goal or standard (e.g., reading instructions aloud for students who struggle with reading).
- **Assistive technology:** This is any device, tool, or piece of equipment that increases the capacity of a person with disabilities to function independently.
- **Inclusion:** This is when students with a wide range of abilities and needs are educated together in age-appropriate, regular classes and are supported to learn, contribute, and participate in all aspects of the life of the school.
- **Universal Design for Learning:** This is an educational framework based on research in the learning sciences, including cognitive neuroscience, that guides the development of flexible learning environments that can accommodate individual learning differences.

Recommended Resources

- Center For Applied Special Technology (CAST) website: Resources related to Universal Design for Learning > Family and Advocates Partnership for Education (FAPE) School Accommodations and Modifications List
- Center For Parent Information & Resources: Resource Library
- "Disability Profiles" *Special Education Guide*
- EdWeb webinar: "Inclusion! Evidence-Based Strategies for Working with Students with Autism"
- Recommended books for educators
 - *Teach like a Champion* by Doug Lemov
 - *Everyday Antiracism: Getting Real about Race in School*, edited by Mica Pollock

- *Other People's Children: Cultural Conflict in the Classroom* by Lisa Delpit
- *The Schools our Children Deserve* by Alfie Kohn
- *Lost at School* by Ross W. Greene

