

Learning How to Learn: Successful Transition Models for Educators Working with Youth with Learning Disabilities

*This InfoBrief, part of a series based on the NCWD/Youth publication, *Charting the Course: Supporting the Career Development of Youth with Learning Disabilities*, identifies and explains selected classroom-based strategies that incorporate strategic learning. General and special educators can implement the following strategies to engage students with disabilities (particularly those with learning disabilities) in order to prepare students to transition from secondary to post-secondary and workplace settings. The aim of this brief is to provide teachers with background knowledge and skills so that they can integrate evidence-based practices into the classroom to aid student learning.*

Youth and young adults with learning disabilities (LD), like their peers without disabilities, must acquire the knowledge, skills, and strategies necessary to maximize their ability to function independently on a day-to-day basis in our society. To be successful in any environment—academic and non-academic—youth need more than remediation and instructional interventions to master skills. Learning *how* to learn and engaging in lifelong learning are particularly important components of academic success and employment success, especially given the fast pace at which the nature of work is changing.

Learning how one learns best, a key principle within what is known as **strategic learning**, can be particularly difficult for youth with LD. Adolescents with LD often do not do as well as their peers in traditional classroom settings, finding less success in retaining information or achieving proficiency levels on high-stakes assessments. Adding to these challenges, these youth often experience social isolation and lowered self-expectations.

Therefore, it is critical that youth develop successful long-term learning habits they can apply in any setting. The benefits are vast, allowing youth to reach their potential and build self-determination.

Educators can implement specific teaching strategies to help more students, including those with disabilities, develop these strategic learning skills. In addition to adopting inclusive teaching methods that reach all kinds of learners (see NCWD/Youth's InfoBrief, *Using Universal Design for Learning: Successful Transition Models for Educators Working with Youth with Learning Disabilities*), educators can apply strategies in the classroom to help youth with LD identify their strengths and take control of their own learning. This InfoBrief will provide teachers with practical techniques and lesson ideas to enhance students' strategic learning skills.



Defining Strategic Learning

Strategic learning is the process of incorporating specific tools and techniques to understand and learn new material or skills, to integrate new information with what is already known in a way that makes sense, and to recall the information or skill later, even in a different situation or place. Put simply, strategic learning is the building and sustaining of long-term learning tactics based on how one learns best.

Remediation is at best a partial solution for working with youth with LD. Typically, school-age children with LD are provided with a variety of instructional interventions, including additional instructional time, one-on-one tutoring, and remediation techniques in an effort to strengthen certain academic skills. Unfortunately, even with the use of evidence-based practices and instruction by the most qualified teachers, some of these youth show little academic growth. As a result, many youth and young adults with LD either believe that they cannot learn or that learning is just too difficult or not worth it.

Rather than focusing on remedial approaches to processing difficulties, strategic learning promotes the development of tactics youth can use to help them utilize their strengths. These learning strategies are particularly useful in meeting the demands of the classroom and the work world confidently and effectively.

Compensatory Techniques

So what can teachers do?

Research demonstrates that successful adults with LD attribute their success to two factors. The first is knowledge of their own strengths and weaknesses; the other is a change in their perception of themselves and their learning characteristics from one of failure to a more positive and balanced perception of a person with both strengths and weaknesses. These factors of self-efficacy and self-directed learning are key areas that teachers can emphasize when preparing youth and young adults for the future.

All people, with and without disabilities, have both strengths and weaknesses. Compensatory techniques or strategies are methods that youth and young adults with LD can use to capitalize on their strengths in a variety of settings, including the classroom and the workplace. One way to think of compensatory techniques is as tools that the student can use to self-accommodate his/her own disability. In fact, these techniques are effective for all youth, including students with cultural or language barriers. While some learners naturally develop compensatory strategies, others will need to be taught these strategies. For all youth, teachers can support and advance this process by incorporating strategic learning into lessons.

The following table provides specific ways in which teachers can help young adults with different learning disabilities capitalize on their talents through the development and utilization of compensatory techniques.



**Table I:
Possible Compensatory Strategies for Youth with Learning Disabilities**

If a person with a learning disability has this issue	Coupled with this strength	Try and teach this possible compensatory strategy
Perseverates: has trouble moving onto new tasks	Can follow strict time schedule	<ul style="list-style-type: none"> • Specify a time limitation for each activity • Have the individual check off tasks completed and keep charts of tasks to do • Give feedback to the individual (e.g., if work is accurate, give extra credit for completion within allotted time)
Learns erratically: sometimes knows, sometimes does not know	Has good short-term memory	<ul style="list-style-type: none"> • Keep a model of the finished product near the individual • Tape-record instructions from prior time periods, which are prerequisites to doing a given activity
Is easily distracted; cannot sustain attention on task	Functions well in a quiet environment Works well when given short time periods to do specific tasks	<ul style="list-style-type: none"> • Locate and offer a stimulus-free environment, like a carrel or small office, when the individual needs a quiet space • Give the individual a time chart to complete with expected time to finish and his/her finish time • If possible, have the individual do a task one step at a time • Ask the individual to focus on the speaker's eyes when listening to instructions
Is easily frustrated; lacks self-confidence	Responds to positive reinforcement Is responsive to keeping track of work quality	<ul style="list-style-type: none"> • Assign short tasks and have the individual self-rate the quality of work and interest in individual types of tasks • Have the individual keep track of work productivity • Give feedback on the activity and an overview of progress to date from the beginning of the program • Repeat work that the individual enjoys and can succeed at
Has difficulty following and/or staying on time	Tells time accurately	<ul style="list-style-type: none"> • Recommend that the individual wear a watch with an alarm or use a stopwatch to time tasks • Give time limitations for tasks and monitor time at the onset of training, then progressively have the individual monitor his/her own time • Use a timer to complete tasks within a set time limit



If a person with a learning disability has this issue	Coupled with this strength	Try and teach this possible compensatory strategy
Directionality confusion (left vs. right, north vs. south, etc.)	Has good communication skills Copies visual model or demonstration well	<ul style="list-style-type: none"> • Motivate the individual to ask questions when confused with directions • Show the model; then have the individual copy it • Use a distinguishing feature on the individual's body or area as a landmark (e.g., if a person is confused by right and left, place an "R" in the upper-right-hand corner of his/her desk)
Experiences poor spatial judgment (interferes with focusing on key reading material)	Has good finger dexterity	<ul style="list-style-type: none"> • Have the individual use a ruler as a guide to hold his/her place in a text • Use highlighters to outline specific information to focus on • Use color transparency overlays that will reveal needed information while blocking background data
Is impulsive; rushes through tasks, making many errors	Responds well to clear, concise directions	<ul style="list-style-type: none"> • Emphasize intent of task, such as accuracy being more important than time
Cannot copy close work	Can copy blackboard work Can read written work	<ul style="list-style-type: none"> • Have the individual copy blackboard notes • Duplicate teacher's notes or another student's notes
Has difficulty integrating parts of items into whole unit (finished product)	After visualizing a whole unit, can see how parts integrate into it	<ul style="list-style-type: none"> • Show the individual finished products so he/she can see how parts integrate into a meaningful whole (e.g., show an individual in electronics assembly a harness before he is given directions to make it himself)
Forgets information presented visually	Remembers information presented orally	<ul style="list-style-type: none"> • When possible, use tape recording and verbal instructions to relay information
Has difficulty functioning when people or environment change	Functions well in familiar environment	<ul style="list-style-type: none"> • Put the individual in a highly structured and, if possible, familiar area where change and distractions are minimal
Has difficulty functioning in large open spaces with noisy backgrounds	Functions well in quiet closed areas	<ul style="list-style-type: none"> • Have the individual work in a small quiet office or room or wear earplugs or headphones
Has difficulty reading directions	Strong listening comprehension and visual comprehension	<ul style="list-style-type: none"> • Tape or read written directions • Demonstrate work and have the individual imitate demonstration
Has difficulty remembering basic math facts	Understands basic math concepts Has good finger dexterity	<ul style="list-style-type: none"> • Have the individual use a calculator to do basic math functions • Utilize a math "fact sheet"



If a person with a learning disability has this issue	Coupled with this strength	Try and teach this possible compensatory strategy
Has difficulty telling time	Can read digital watch Socializes well	<ul style="list-style-type: none"> Buy a digital watch Pair the individual with another individual keeping a similar schedule
Lacks social judgment	Learns well in concrete situations	<ul style="list-style-type: none"> Use group activities, like role-playing, to reinforce positive behavior Whenever possible, give immediate feedback to reinforce positive behavior
Has poor visual memory	Has good auditory memory Functions well when model stays in sight	<ul style="list-style-type: none"> Explain written directions orally Present information orally, not only visually Have the individual use a talking calculator or spell corrector to check accuracy of work When required to perform a task, have the model of the finished product available to the individual
Has poor auditory memory	Has strong visual memory	<ul style="list-style-type: none"> Draw or write directions Tape-record directions if visual presentation is unavailable Simplify oral directions

This table appears in *Charting the Course: Supporting the Career Development of Youth with Disabilities* (NCWD/Youth, 2009).

Cognitive and Metacognitive Instruction

Another aspect of strategic learning draws upon different modes of instruction. The most effective way to facilitate learning for all learners, including youth with LD, is by combining direct instruction (e.g., lecture, discussion, book learning) with strategy instruction.

Strategy instruction involves teaching the youth about learning strategies and about how and when to use those particular strategies. For example, **cognitive strategies** are concrete action-based strategies that assist the youth in processing and using information. These strategies tend to be task-specific, including visualization, verbalization, making associations, chunking, questioning, scanning, underlining, accessing cues, using mnemonics, sounding out words, paraphrasing, and self-checking and monitoring.

Strategy instruction also includes methods aimed at increasing the youth's ability to engage in self-regulated planning, monitoring, and the evaluating of their learning. This awareness of the learning process, also known as **metacognitive awareness**, is a critical ingredient to successful learning. Over time, the acquisition and use of metacognitive strategies help students develop problem-solving skills and build confidence in their ability to learn. As this confidence builds, independent learning is fostered.

Research demonstrates that the most effective strategy interventions combine the use of both cognitive and metacognitive strategies. The following table provides practical applications that instructors can incorporate into the classroom.



**Table II:
Types of Learning Strategies and Supports: Cognitive and Metacognitive**

<i>Cognitive Strategies</i>		
Strategy	Definition	Benefit
Rehearsal	Reciting items to be learned from a list	Believed to influence the attention and coding process. It does not seem to help students connect current information with prior knowledge
Elaboration	Summarizing or paraphrasing	Believed to improve a student's ability to store information into the long-term memory by building internal connections between items to be learned and assisting with the integration of new information with prior knowledge
Organization	Outlining	Helps learners select appropriate information and make the connections to be learned
Analyzing	Problem-solving, critical thinking	Assists students with applying previous knowledge to new situations in order to solve problems and/or reach decisions
<i>Metacognitive Strategies</i>		
<ul style="list-style-type: none"> • Connecting new information to existing knowledge • Selecting thinking strategies deliberately • Planning, monitoring, and evaluating thinking process <p>These strategies help students think about thinking. Metacognition is an important concept in cognitive theory. It consists of two basic processes occurring simultaneously:</p> <ul style="list-style-type: none"> • Monitoring your progress as you learn • Making changes and adapting your strategies if you perceive that you are not doing as well as you could <p>Basic Metacognitive Aids/Strategies</p> <ul style="list-style-type: none"> • Connecting new information to existing knowledge • Selecting thinking strategies deliberately • Planning, monitoring, and evaluating thinking processes <p>Metacognitive activities usually occur before or after a cognitive activity. An example of the relationship between metacognitive and cognitive strategies is a learner who uses self-monitoring when reading. The learner, through self-monitoring, can sense that he or she does not comprehend what was read (metacognitive) and recognizes that they will understand the text better if they create an outline (cognitive).</p> <p>Strategies to develop metacognition include:</p> <ul style="list-style-type: none"> • Share and model self-monitoring processes (e.g., proofreading) • Explain and provide handouts regarding particular strategies that may be helpful • Clarify and model when particular strategies are appropriate • Clarify why particular strategies are helpful and useful 		

Adapted from Job Corps, n.d.



Literacy Programs and Learning Strategies

The Office of Special Education Programs (OSEP) within the U.S. Department of Education has compiled a *Tool Kit on Teaching and Assessing Students With Disabilities*. In it, they highlight two adolescent literacy programs that use compensatory learning strategies. Collaborative Strategic Reading (CSR) and the Strategic Instruction Model (SIM) engage students in reading and writing instruction that combines group work guided by teachers with significant learning time devoted to the analysis of text, clarification of word meanings, prediction of what is ahead, and contextual summarizations.

**Table III:
Literacy Programs and Learning Strategies**

CSR incorporates cooperative learning and utilizes four distinct strategies:

- Preview (students brainstorm about the topic and predict what will be learned; occurs before reading);
- Click and Clunk (students identify parts of a passage that are hard to understand, then use strategies to break difficult words or phrases apart);
- Get the Gist (students identify the most important information in a passage); and
- Wrap Up (students ask and answer questions that demonstrate understanding, and review what was learned) (Klingner & Vaughn, 1998).

SIM strategies incorporate “Content Enhancement Routines” that help teachers manage and present content through organization, understanding, recall, and application using:

- Paraphrasing (students express the main idea and details in their own words);
- Self-questioning (students develop questions concerning reading passages and read to find the answers);
- Visual imagery (students visualize scenes in detail); and
- Word identification (students decode unfamiliar words by using context clues and word analysis) (Clapper, Bremer, & Kachgal, 2002).

This table appears in *Charting the Course: Supporting the Career Development of Youth with Disabilities* (NCWD/Youth, 2009).

With regard to cognition and metacognition, teachers should remember that all young people learn, though they may not necessarily learn what adults want them to learn or in the way that they want them to learn it. Educators need to ask young people to reflect on a time they learned something new and enjoyed it. They may want to watch youth work on a task that motivates them and see how they do it. The powerful combination of direct instruction and strategy instruction can lead to tremendous teaching gains in addition to learning gains.

Ultimately, youth must make the difficult transition out of the secondary school setting and into post-secondary education and workplace settings. For many youth, the progress achieved from developing strategic learning techniques is truly a game-changer for their future. In addition to the benefits discussed in this InfoBrief—the youth’s ability to master new skills, achieve on assessments, build self-determination, and practice long-term learning habits—strategic learning also helps youth determine the right job fit for when they’re ready to enter the world of work. Especially in this information age where things move so quickly, it is important that all youth know “how to learn” and have a toolbox of strategies to help them solve problems and make strides in adult environments. For most youth, this process begins with the classroom and the teacher.



Recap: The Top 5 Strategic Learning Techniques for Educators

Applications for strategic learning in the classroom

1. Youth Self-Assessment

Initiate an in-class activity that requires students to identify what they believe their greatest academic and non-academic strengths are. Consider conducting a series of activities that incorporate a variety of instructional modes so all kinds of learners can connect with the project. Having youth identify their strengths will improve their self-determination and self-confidence, as well as provide the teacher with insight into what the student believes he/she does best. The latter information may prove helpful in the teacher's identification of the student's actual strengths, as well as the student's depth of metacognition.

2. Individual or Small Group Meetings

Teachers will want to make one-on-one or small-group meetings a priority during the school year in order to better evaluate individual student strengths and weaknesses.

3. Build on Talents

During lesson preparation, incorporate some of the ideas listed in Table I to capitalize on students' talents, especially given corresponding weaknesses. If applying different compensatory techniques for each student is not feasible, group students with similar strengths and weaknesses and carry out helpful strategies for each.

4. Help Youth Think About How They Learn

Help students develop metacognitive strategies—an understanding and appreciation for the learning process—by explaining why certain classroom materials are useful, clarifying what learning strategies might be helpful, and modeling effective techniques. Also, be sure to draw connections between new lessons and knowledge the student already has.

5. Adopt Effective Models

Use components of Collaborative Strategic Reading (CSR) and/or the Strategic Instruction Model (SIM), both of which use strategic learning compensatory techniques to enhance adolescent literacy.

Summary

Youth are not getting the preparation they need for the difficult transition from secondary to post-secondary or employment settings. Fortunately, research has proven that teachers can greatly improve student outcomes—and as a result, school and community outcomes—by modifying their approach in the classroom. Educators who incorporate strategic learning techniques allow all kinds of learners to capitalize on their strengths by understanding how they learn best. Knowing that certain techniques and strategies can be used to support learning, which techniques are useful in which situations, and how to use these techniques effectively can be empowering for all youth and young adults, including those with LD. Above all, strategic learning leads to higher achievement in both academic and non-academic settings. Teachers need to seek out training and professional development opportunities to build on the techniques presented in this InfoBrief and improve the use of strategic learning in the classroom. With the help of teachers, all youth, including those with disabilities, can build on their strengths and make that successful transition into an adulthood of independence and accomplishment.



Strategic Learning Resources

Center for Research on Learning at the University of Kansas. <http://www.kucrl.org/>.

National Dissemination Center for Children with Disabilities. (2006). *Evidence for Education: The Power of Strategic Instruction*. Available online at <http://nichcy.org/wp-content/uploads/docs/eestategy.pdf>.

“What’s Your Learning Style?” <http://www.ldpride.net/learning-style-test.html>.

This brief online assessment helps youth with learning disabilities identify their preferred learning style in order to learn more effectively.

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U.S. Department of Education, Office of Special Education Programs. (2006). *Tool Kit on teaching and assessing students with disabilities*. Retrieved on January 16, 2012 from <http://www.osepideasthatwork.org/toolkit/index.asp>

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