

# Learning Disability Training: A New Approach

## Effective Instructional Methods



## Learning Objectives

- Understand characteristics of appropriate learning disability instruction
- Explore instructional models
- Describe teaching methods specifically for reading writing and mathematics
- Learn standards for selecting instructional materials
- Learn about the collaborative teaching/tutoring approach
- Learn to apply learning styles to training
- Incorporate ongoing review and modifications of:
  - Progress
  - Skill-building strategies
  - Instructional strategies
  - Accommodations

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## Introduction to Module 5

Previous modules identified: characteristics of learning disabilities; suggestions for screening and assessment, along with supports such as learning and organizational strategies; accommodations; and assistive technology. The need for practitioners to increase their knowledge of assessment and supports in order to develop effective training plans was emphasized. In Module 3, the focus was on the **learner's approach** to learning a task. A variety of learning strategies, including a description of how to teach a learning strategy using the Strategic Instructional Model (SIM), were addressed. The SIM provides learning strategy instruction that focuses on training learning disabled adults how to learn. In this final module, the focus will be on the **practitioner's approach** to an instructional task. This practitioner approach encourages the learning of critical skills and knowledge. It is based on learning mechanisms that help learners with diverse needs. The approach focuses on how practitioners think about, adapt, and present skills and critical knowledge in a "learner-friendly" fashion.

The Center for Research on Learning has concluded that both practitioner-focused interventions and learner-focused interventions are needed if learners are to succeed and be capable of demonstrating real-world use of listening, speaking, reading, and writing skills.<sup>1</sup>

Effective instruction that focuses on becoming more responsive to individual needs will be beneficial to all adults, regardless of a disability. Practitioners are not expected to provide an approach to instructing adults with learning disabilities that is different from the instruction they provide for the rest of their learners. The focus in this module will be to provide strategies and tools to enhance practitioners' instructional outcomes by becoming more responsive to learners' needs.

"This will require practitioners to move beyond simple observation of performance to an exploration and understanding of the cognitive and metacognitive strategies that their students use to learn and perform tasks."<sup>2</sup>

# **C**haracteristics of effective approaches to **instruction**

A significant amount of research has been conducted regarding methods that practitioners can use to enhance and transform content in ways that will accommodate different modes of processing information. A number of strategies have been developed to help practitioners shift their approaches to be more sensitive to the ways that learners process information. Research in the field of learning disabilities supports instruction that is direct, intensive, and systematic. When working with a diverse group of learners, practitioners need to focus more of their time on the following instructional characteristics:

## **Selecting the critical information** (skills, strategies, and knowledge)

- Involve the learners as much as possible.
- Ensure that information is functional and relevant.
- Teach learners to master fewer but important skills, rather than trying to teach a wide range of skills.

## **Provide structure** (determine the best way to think about and organize the information)

- Break tasks down into a logical sequence of discrete steps.
- Provide sequential stages designed to promote mastery at each level.
- Follow a similar structure or routine for each instructional session so that learners know what to expect and become comfortable with the learning process. Following an established routine will enable adults to learn how to approach learning. They can then become more involved in shaping future instructional sessions.
- Offer a variety of strategies and techniques for promoting learning.

**Ensure instruction is sensitive to the information process** (identify potential problems in information processing)

- Slow down the rate of speech and emphasize important points.
- Maintain eye contact in order to assess the level of comprehension, encourage participation, give and get feedback, and maintain attention.
- De-emphasize oral reading, as this may interfere with comprehension and may also embarrass the student. Use oral reading only for select purposes and in private.
- Help learners to prepare passages for oral reading in advance of the group instruction as this may help prevent failure and embarrassment. Choral reading may be helpful.
- Call on learners with learning disabilities only if they volunteer to participate when instruction takes place in small groups.
- Use colour, highlighters, enlargement of print, and underlining to strengthen visual input and enhance visual memory.

**Provide instructional activities that facilitate good information processing**

- Provide multiple opportunities for learners to respond, interact and participate with the practitioner and peers. The more active the learners, the greater the learning that is taking place.
- Use multi-media approaches such as audio-cassettes with text or video-tape to preview story lines of novels and supplement information from print.
- Encourage the use of compensatory strategies (e.g. tape recording sessions, directions, assignments, and discussions) as aids for those with memory deficits.

- Teach memory enhancement strategies that will aid recall such as listing, rewriting, categorizing, alphabetizing, visualizing, and using associations and acronyms.
- Integrate scaffolds by asking critical questions about what the learners know. Provide new information based on learners' responses, ask additional questions to clarify, and then continue to interactively shape students' learning.
- Model what is to be learned by offering a clear demonstration of the skill or strategy.
- Promote generalization by showing how the skills or information taught can be transferred to other situations.

### **Provide explicit explanations and leadership during instruction**

- A systematic approach to instruction appears to be more powerful than trial-and-error teaching.
- Direct and explicit teaching is more effective than more "discovery" types of approaches.
- Keep learners informed about the instructional procedures being used to instruct them.
- Explain what is to be learned and why it is important - highlight the relevancy.
- At all stages of instruction and decision-making, learners should be offered instructional choices related to what, how fast, when, and where they are learning.
- Show learners how to think, use and manipulate information.
- Teach learners how to learn and how to link previous information with new information.

**Check frequently to ensure that adults have made appropriate connections and have learned the information**

- Encourage learners to tell how they learn best and use this information to design future lessons. Provide frequent feedback that describes what was done well and how it might be improved.
- Provide practice, practice and more practice!
- Ask frequent questions to help adults stay involved and check for learners' understanding of the material that is being taught.

**Enduring** (ensure that adults have fully mastered critical information before moving on to additional content)

- Maximize success and enhance self-esteem by providing opportunities for the learners to be successful.
- Pre-test, instruct, test, reinstruct as needed, and review.
- Provide learners with helpful feedback and further instruction as needed, to promote mastery.<sup>3</sup>

The importance of thinking through what critical content needs to be presented, the instructional process, and how the information can be integrated are all important to effectively instruct any learner, but especially adults with learning disabilities. Most often their disabilities can negatively impact and weaken the following areas:

- Organizing content information
- Differentiating major ideas from supporting information
- Comparing and/or contrasting information
- Reading and understanding large amounts of content information
- Relating their background knowledge to new information
- Holding large quantities of information in memory<sup>4</sup>



### **Practitioner efficacy**

One often hears about the importance of learners increasing their self-efficacy (the belief that they can succeed at a task) because it impacts their motivation to persist in learning. However, the importance of instructor-efficacy and the impact it has on the adults' learning is often not discussed. Practitioners can incorporate many of the effective instructional characteristics into their programs, but if they exhibit a low teacher-efficacy then good instructional principles will have less impact on the learners.

#### **The following factors of practitioner-efficacy can impact on learners' motivation to succeed. Practitioners should:**

- Exhibit a sense of personal accomplishment and view teaching as meaningful and important.
- Hold positive expectations for learners' behaviour and achievements.
- Feel personal responsibility for students' learning accept accountability and show a willingness to examine performance.
- Plan for students' learning and identify instructional and learner strategies.
- Feel good about teaching, about themselves, and about learners.
- Believe they can influence students' learning.
- Develop a joint venture with learners to accomplish goals.
- Involve learners in making decisions regarding goals and strategies.<sup>5</sup>

A high level of practitioner-efficacy can lead to a positive learning environment. This creates an excellent foundation for encouraging learners to be open about their needs and to build trust in the practitioner and learner relationship. Often learners have had negative experiences with school and need to see that the current learning environment is different. As learners acknowledge the difference and begin to feel safe in the current environment, they become more receptive to sharing their learning needs and more willing to engage in active learning.

# **P**ractitioner-based strategies:

## **Content enhancement routines**

To address the instructional challenge presented by adults with learning disabilities, literacy programs need to develop and embrace systematic teaching behaviors that focus on how adults learn and approach tasks.”<sup>6</sup>

Given the diverse needs that practitioners are expected to meet in a small group or classroom environment, they need to become very effective with their instructional planning. Effective planning should involve three components:

- **Content** (the critical information and skills that need to be covered)
- **Process** (how it will be presented)
- **Integration** (how the information provides meaning for each individual)

Practitioners within the LBS programs often struggle with how they can plan for the individualization of instruction for learners with disabilities in the context of small group and classroom environments. Content enhancement routines are ways of instructing an academically diverse group of learners. The following four conditions must prevail for content enhancement routines to be successful:

1. Both group and individual needs are valued and met.
2. The integrity of the material that is to be covered is maintained, not simplified or watered down.
3. Critical features of the content are selected and transformed in a way that promotes student learning (i.e. offer various ways to learn and practice the skills and material, illustrate relevancy and provide real-life examples).
4. Instruction is carried out in a partnership with learners.<sup>7</sup>

All of the routines promote direct, explicit instruction. There are a number of content enhancement routines that help practitioners to enhance:

- Instructional planning
- Ideas and supporting details
- Critical concepts
- Ability to recall
- Meeting outcomes

The amount of questions practitioners pose to their learners increases significantly when content enhancement is integrated into practice. This helps to foster problem-solving, reasoning, discussion and higher order thinking. By asking more questions and presenting fewer facts through lecturing, learners can become more engaged in the learning process rather than being passive participants.<sup>8</sup>

The routines were designed for use during group instruction to help practitioners provide instruction that is more sensitive to the learning needs of individuals in the group. Some content enhancement routines help practitioners think about and organize content and present it in such a way that learners can see how it is organized. Other routines help teach complex concepts, so learners can gain a deeper understanding and develop a vocabulary for talking about important information. Still other routines help learners to recall the information being taught.<sup>9</sup>

This module highlights each of the content enhancement routines associated with the above categories and provides one detailed example for each type of routine. Web links have also been included for practitioners who wish to pursue additional information on the subject.

### **Enhance instructional planning**

The SMARTER Routine helps to effectively connect all the phases of planning, instruction and learning for each student. This model helps practitioners to meet the range of information-processing differences by teaching SMARTER. This process is also effective when working on a one-to-one basis, especially if a tutor has to plan instruction for more than one learner.

**The key components of the SMARTER routine s**

**Select critical outcomes:** What is really critical and important for students to learn to truly understand this information? Goals and interests of learners should determine content.

**Map critical content:** How can the information be organized into chunks? Create a map to show how the information will be presented and it can serve as a road map for learning.

**Analyze for learning difficulties:** Consider difficulties in acquiring information, storing and retrieving information, expressing information and demonstrating competence. What might make this information difficult to learn (is it too abstract, is it relevant, is there prior knowledge, is it too complex)?

**Reach enhancement decisions:** What instructional tools can be used to reduce the level of difficulty (graphic, story, concrete aid, mnemonic, analogy, comparison to prior knowledge)?

**Teach strategically:** Provide informed and explicit instruction. Inform learners about the device, and why and how it will be used. Explicitly cue them that the device is being used, review what has been learned and how it has been learned. The use of the device in this CUE-DO-REVIEW manner creates the teaching routine.

**Evaluate mastery:** Determine if the material has been learned – don't wait for the test, do an on-the-spot reality test. Once this is done, either review or go on.

**Revisit outcomes:** If a learner has not mastered the critical content that has been selected, what does that say about the instruction? Was the device ineffective?<sup>10</sup>

When organization is not clear or is poorly structured, learners need to have the organization made more explicit for them.

Learners should be taught how to:

- Survey materials and identify text organization
- Read to confirm organization of ideas
- Reorganize information for their personal understanding and use.<sup>11</sup>

### **Additional enhancement routines**

- Course Organizer Routine: helps practitioners to introduce and maintain courses so that all learners in the class have a clear understanding of the courses.
- Unit Organizer Routine: helps practitioners to introduce units so that all learners see and understand the key ideas of the units, the relationships and the outcomes to be achieved.
- Lesson Organizer Routine: helps practitioners to initiate lessons that last one or more days so that the learners are aware of their relationship to the larger units of instruction.<sup>12</sup>



**A website specific to unit organization.** Go to:

[http://www.dldcec.org/pdf/teaching\\_how-tos/dont\\_water\\_down.pdf](http://www.dldcec.org/pdf/teaching_how-tos/dont_water_down.pdf) -

## **Case study integration – Tom**

### **Brief profile of Tom**

Tom needs help with his expressive writing. He has difficulties with organization, spelling, grammar and editing. Tom has enrolled in the LBS program at the local adult learning centre. There are 11 other peers in his small group who share challenges with writing and individually possess specific strengths and weaknesses. Although Tom has not been officially diagnosed with an auditory learning disability (based on his initial assessment), he exhibits a number of characteristics of this type of disability.

The challenge faced by the practitioner is how to instruct the writing process and meet the individual learner's needs, including potential learning disabilities.

### **Content enhancement to help with organizing the big picture**

The practitioner wants to use the POWER (Plan, Organize, Write, Edit and Revise) strategy to help with writing. This writing strategy will be addressed over a period of time, given the amount of content and the number of steps involved in the writing process. Tom entered the program in November and the group had already begun to work on their writing. However, the practitioner has just participated in an online training session and wants to use the POWER strategy with the group.

In October, the practitioner had already introduced the concept of planning, but now wants to use the POWER strategy because it presents the writing process in an easy manner and will help the learners to remember the steps in the writing process. The practitioner has decided to introduce the strategy from the beginning since it will provide a good review on planning and will help the learners understand how the POWER strategy fits with what they have already learned. The practitioner had to think about how he/she would plan, present and instruct the content. He/she decided to use the unit content enhancement routine to introduce the POWER strategy and show how it fits into the “big picture” of writing for all learners, regardless of individual training needs.

### **Steps to introduce the POWER strategy using the unit organizer**

- **Introduce the goal:** to write effectively.
- Ask the group to brainstorm on how they approach writing.
- **Cue:** Introduce the term POWER using handouts and an overhead that allows the learners to hear and see the information.
- Give out blank copies of the Unit Organizer device and explain that the group will be beginning a new unit using the Unit Organizer.
- Show a blank Unit Organizer format on an overhead projector and explain that the group will complete this one together.
- In addition, spend a few minutes talking about what it means to be organized at home and with schoolwork, and then talk about the value of the Unit Organizer for organizing information.
- **Do:** engage learners in completing the Unit Organizer, using guided questions.

**Sample of group discussion:**

Practitioner: When we look at the term planning, what do we need to think about before we write?

Learner (Joe): We need to think about what we are going to write about.

Practitioner: Yes Joe, we need to think about the topic – what we plan to write about.

The practitioner wrote this down on the unit organizer under planning and encouraged the learners to do the same. When the learners were unable to come up with an answer, the practitioner provided the information and demonstrated how it was included in the unit organizer. To encourage group involvement the practitioner also asked the learners how this was reflected in their experiences.

**Review:**

Once the unit organizer is complete, ask the learners a series of questions on what they will be covering and how the unit organizer can be used to help understand the big picture.

**Sample of discussion**

Practitioner: Who can tell me what POWER stands for?

Learner (Tom): It is the steps that we need to take to do our writing.

Practitioner: Yes Tom, the POWER model outlines the five steps that we should follow when we write. The P in POWER stands for?

Learner (Frank): It stands for planning and the things we should do to when we plan our writing.

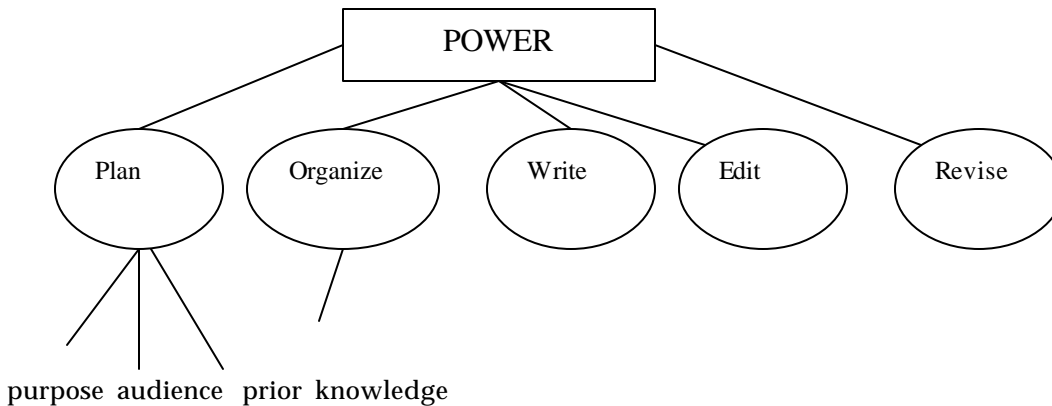
Practitioner: How could the planning steps be used in our everyday life?

Learner (Tom): I could use the steps for my job search.

Practitioner: Great idea Tom. As a group, let's look at how we could do this...

Through **questioning and feedback** the practitioner can get an understanding of the group's grasp of the writing process content. Each time the group moves on to the next part of the POWER model, they should review the unit organizer and use it to address each individual's learning needs. For Tom, he needs to focus on the editing and revision part of the POWER model. As a result he should choose to use a highlighter to make these two steps stand out on his unit organizer.

### Example of how the unit organizer looked during development



**Learning outcomes:** (include both group outcomes (broad) and individual outcomes for each learner)

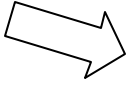
**Learning strategies:** list the strategies that will be covered – you may want to list them directly under each section of power (i.e. planning sheets under planning, semantic mapping/sentence organizing under organizing, etc.)

### Enhance ideas and supporting details

The following enhancement routines help practitioners effectively teach main ideas and supporting details. The routines can help turn abstract main ideas into concrete ideas to help learners think and talk about key topics.

**Clarifying routine:** can be used by practitioners to help learners gain a clear understanding of the meaning associated with terms, events, places, people or ideas that are included in the materials presented. While instructing, the practitioners highlight the targeted terms and present the associated features to help clarify the meanings of the terms. Practitioners are encouraged to present terms or ideas using a variety of processing mechanisms. They should help the learners connect personal meanings to the terms. Emphasizing relevancy, clarifying the terms and using a variety of formats will help the learners to develop a solid understanding of the terms. Practitioners can use this routine to introduce a new idea or as a review routine.<sup>13</sup>



**Example of using this routine for teaching vocabulary**

Go to:

[http://www.ldonline.org/ld\\_indepth/teaching\\_techniques/ellis\\_clarifying.html](http://www.ldonline.org/ld_indepth/teaching_techniques/ellis_clarifying.html)

**Additional enhancement routines**

- Framing Routine: helps practitioners turn abstract ideas into concrete ideas. It helps the learners to focus on the most essential information and see the relationships between main ideas and details.
- Survey Routine: helps practitioners to work with a diverse range of reading levels to successfully comprehend reading passages, text, articles, etc.<sup>14</sup>

**Enhance critical concepts**

This enhancement routine is quite helpful, especially when working with adults who have learning disabilities that interfere with their ability to understand broad concepts or theories. They often do not know how to link new concepts with previous knowledge. A learner's understanding of a concept and of its application increases when a concept is associated with prior knowledge. Learners should be taught to ask appropriate questions of relevance, search for personal connections, and to explore ways to make content relevant.

**Concept Anchoring Routine**

The main purpose of this routine is to help learners connect new information with information that is already familiar to them. This enhancement is especially helpful when working with abstract or complex concepts. There are three components:

- The use of an anchoring table
- The linking steps
- The cue-do-review sequence.

The anchoring table is an instructional tool that practitioners can develop as a framework to help plan their lesson. The table is used to explain to learners how critical aspects of the new concept are related to something with which the learners are already familiar. During group time, the practitioner can use the table as a framework to direct the process of learning and together the learners complete the table.

The linking steps serve as a guide for the process of going through the comparison of the concepts. There are 7 steps:

- 1) Announce the new concept
- 2) Name the known concept
- 3) Collect known information
- 4) Highlight characteristics of the known concept
- 5) Observe characteristics of the new concept
- 6) Reveal characteristics shared
- 7) State understanding of the new concept

Prior to going through the steps, the practitioner **cues** the learners that they will be using this type of enhancement routine and encourages them to participate. The **do** phase is the actual process of going through the seven linking steps to construct the table. In the **review** phase, the practitioner reviews the learners' understanding of the concept, the related information and the thinking process that was used to construct the table.

An example of a new concept could be positive and negative numbers and showing how they relate to a thermometer (known concept).<sup>15</sup> The learners would be encouraged to identify characteristics of the thermometer. By using the anchoring table and linking questions, the learners will begin to see the similarities of negative and positive numbers as relevant to a thermometer. This will help increase the recall of the new concept.

The following anchoring table was adapted from Deshler, Donald, Schumaker, Jean, Bulgren, Janis, Lenz, Keith, Jantzen, Jean-Ellen, Adams, Gary, Carnine, Douglas, Grossen, Bonnie, Davis, Betsy and Marquis, Janet. *Making Learning Easier: Connecting To What Students Already Know. Teaching Exceptional Children*. Vol.33., No.4. 82-85. At [http://www.dldcec.org/teaching\\_how-tos/content/default.htm](http://www.dldcec.org/teaching_how-tos/content/default.htm)

<b>Concept Anchoring Table</b>				
<b>Anchors</b> 1. Announce the New Concept 2. Name the Known Concept 3. Collect Known Information 4. Highlight Characteristics of the Known Concept 5. Observe Characteristics of the Known Concept 6. Reveal Characteristics of the New Concept 7. State Understanding of the New Concept	<b>3. Known Information</b> Information	<b>2. Known Concept</b> Saving and finding a file in our computer		<b>1. New Concept</b> Understanding how our memory works
	Give a name for the file	<b>4. Characteristics of the Known Concept</b>	<b>5. Characteristics Shared</b>	<b>6. Characteristics of the New Concept</b>
	Can forget things Must save it Stored	Information must be entered into the file before it can be saved	Information must be entered correctly	Information must be processed correctly before it will enter into our short-term memory i.e. hear it, see it, feel it, smell it before it can be saved
	Organized	Have to give the file a name that makes sense	Need something to trigger our memory to find the information	Need some way to help remember the information i.e. through associations, mnemonics etc.
		Saving to a disk can only hold a certain amount of information	Limited capacity when saving information	Our short-term memory can only hold a small amount of information before it goes into our long-term memory
		Have to organize the files into folders if you have a lot of files	Information must be organized to easily retrieve it	To retrieve information from our long-term memory we must have stored it in an organized way
	<b>7. State Understanding</b> An analogy can be drawn between the computer filing system and the human memory system - in both systems the information must be processed correctly in order to save it because in order to retrieve information from both systems it must be saved using a device that will trigger our memory as to what information has been saved and the information in both the computer file and in our long term memory must be organized so it can be retrieved easily.			

## **Additional enhancement routines**

- **Concept Comparison Routine:** helps the practitioner to pause and consolidate the learners' understanding of two or more critical concepts by analyzing the important characteristics of each, sorting them into similar and different categories, and then synthesizing their conclusions about the concepts.
- **Concept Mastery Routine:** used as an interactive tool to review a previously introduced critical concept, using a graphic organizer. Through the interactive process, the learners are encouraged to identify characteristics of the concept, sorting examples and non-examples and synthesizing their understanding of it.<sup>16</sup>

## **Enhance recall and meeting outcomes**

“Their particular use is in developing better ways to take in (encode) information so that it will be much easier to remember (retrieve).”<sup>17</sup>

### **Recall Enhancement Routine**

This routine is employed by practitioners to cue learners to lists and small groups of facts that need to be memorized. Practitioners instruct through demonstrating, modeling and providing scaffolds on how to transform the information into formats by using a variety of mnemonic devices (keywords, first letters, visual imagery, and rhymes). Mnemonic strategies help enhance memory by providing an effective way to encode the information so that it is easier to retrieve. One of the key tasks in developing mnemonic strategies is to find a way to relate new information to the information students already have locked in their long-term memories.

Pictures can also provide a memory advantage. Use pictures on a chalkboard or on an overhead projector. Bring in photographs or other illustrations. The enhancement routine provides an approach to help learners understand how to remember, as well as what to remember.<sup>18</sup>

## Case study integration - Tom

### Content enhancement recall

Tom has been progressing with the writing process using the POWER model. The group is beginning to work on editing. Because there are many things to examine when editing, the practitioner has decided to use the acronym COPS - edit capitals, overall appearance, punctuation and spelling.

### The following steps helped enhance recall of the editing acronym COPS:

- Direct instruction was provided on the skills required to edit (spelling, punctuation, etc.).
- A picture was put on an overhead of a police officer directing traffic (who was holding up a stop sign, but had COPS on the sign instead of STOP) - a handout was provided with the same picture.
- The role of police officers in stopping people from breaking rules and directing traffic was discussed and related to the role of editing (i.e. learners need to stop and edit their work before they are finished; if they don't edit, they are breaking the rules of the writing process).
- The acronym COPS was introduced, the practitioner went through each letter stating what it stands for, and then the group discussion was as follows:

Practitioner: So what does the "C" stand for in the acronym COPS?

Learner (Tom): Capitals.

Practitioner: Yes, and what do we need to do with our writing related to capitals? Learner (Tom): I need to make sure that the sentences start with capitals.

Practitioner: Yes Tom, and what other words should have capitals?

The practitioner then asked another learner for the answer and the process continued until the practitioner felt that all learners understood what COPS represents.

- Once the practitioner provided direct instruction on the skills and demonstrated and modeled how to use COPS for editing, then the practitioner provided opportunities for collaborative group work.
- The practitioner broke the learners into 3 groups and asked each group to practice editing a paragraph with one group looking for capitals (the C) and one group looking for overall appearance (the O), etc. Each group was given a handout with the letter bolded that related to the editing step they were working on. Once the activity was completed, the groups passed their editing to another group, and asked them to compare and note any differences (peer review). At the end of the activity, the practitioner collected the paragraphs and with the group reviewed their work by modeling COPS and using their edited paragraphs.
- Independent review was the next step and each learner was asked to use the different fonts and colours on the computer to design one page with the acronym COPS on it for homework.
- The next day the learners were encouraged to share their designs with the small groups and then the practitioner regrouped the learners to go through the COPS process with minimal instructor scaffolds.
- Once this was completed, the practitioner broke the group into peers. It was suggested that Tom work with another learner who has stronger editing skills to help model good editing practices.

### **Additional enhancement routines**

- Quality assignment routine: allows practitioners to co-create differentiated assignments with learners so that the completion rate and quality of their products is increased. This is accomplished by

engaging in a three-phase process of planning the assignments on a graphic organizer, sharing options with students as they apply the REACT strategy (ensure that they have the necessary information, set goals, and make plans for completing the assignment), and co-evaluating the final products.

- Vocabulary LINCing routine: designed to facilitate student use of two powerful tools - an auditory memory device and a visual memory device - that help adults learn and remember the meanings of complex terms.<sup>19</sup>

Content enhancement routines help learners to see the structure and develop mental tools for organizing information. However, they are not enough on their own, especially for learners who appear to be struggling. Some learners will need a variety of supports including the development of learning strategies, additional support through one-to-one tutoring and the possible integration of accommodations. Although learning strategies were addressed in Module 3, it is important to highlight that both supports need to be provided for adults with learning disabilities, especially for those who are lagging significantly behind. This is where both group work and individual instruction may need to be offered according to each individual's need for supports.

## **I**nstructional models

Practitioners can access a number of instructional models. Deciding which one to choose depends on a couple of factors: the practitioner's knowledge base and the desired learning outcome for the learners. For example, if a practitioner wants to instruct on a specific skill such as using prefixes and suffixes, the use of direct instruction may be most suitable, but if the desired outcome is to improve social relationships among the learners, then the use of a collaborative approach may be more appropriate. If the desired learning outcome is for the learners to master three-step word problems, then a combination of direct and collaborative approaches could be utilized for

instruction. The direct instruction would provide specific instruction on how to do word problems and the collaborative approach would give the learners opportunity to practice, manipulate and discuss their understanding of word problems to enhance active learning. These examples demonstrate the importance of specifying desired outcomes and their measures before decisions are made as to the implementation of specific instructional methods.

## **Strategic Instruction Model (SIM)**

Any approach that is taken needs to balance both the learning strategies for skill development and instructional enhancements for understanding content and concepts. Because of this, the Strategic Instruction model that was addressed in Module 3 will be covered again. The SIM model incorporates both strategic instruction and content enhancement. It helps to meet the performance gaps through the teaching of learning strategies and the information demands through content enhancement routines. This model for instruction helps practitioners deal with managing content and helps to close the performance gap for learners. It has incorporated most, if not all, of the instructional principles that have been identified as being effective with students with learning disabilities.<sup>20</sup> The SIM addresses how learners acquire information, helps learners work with information once they acquire it, and helps learners express themselves.

“It offers ways for both teachers and students to change, and it provides a framework for working toward meeting state standards and mandatory testing requirements.”<sup>21</sup>

To be optimally effective, SIM must be put into action by practitioners who have clear visions of their roles, who possess high levels of efficacy, and who seek to show a strong sense of respect for their learners. In the absence of these things, all of the well-designed instructional procedures in the world will have an uphill battle in trying to improve the performance of students who are struggling to learn and struggling to feel good about themselves.<sup>22</sup>



**SIM involves six main steps:**

- 1) **Pretest learners and encourage them to become interested in learning the strategy.** Practitioners should determine how much the learners might already know about using the strategy and secure their commitment to learning the strategy from top to bottom. It is important to explain to the learners what strategy they are going to learn and how it can help them in skills development.
- 2) **Describe the strategy.** Give a clear explanation of the strategy, the various steps, as well as some of the benefits to learning the strategy. Identify real assignments or tasks where the learners can apply the strategy. Ask learners if they can think of other work where the strategy might be useful.
- 3) **Model the strategy.** Modeling the strategy for learners is an essential component of strategy instruction. In this stage, practitioners use the strategy to help them demonstrate a relevant classroom assignment or authentic task. Practitioners should talk aloud as they work so that learners can observe how a person thinks and what a person does while using the strategy, including: deciding which strategy to use to perform the task at hand, working through the task using that strategy, monitoring performance (i.e. is the strategy being applied correctly, and is it helping the learner complete the work well?), revising one's strategic approach, and making positive self-statements.
- 4) **Practice the strategy.** Provide repeated opportunities to practice the strategy. The more learners and practitioners work together to use the strategy, the more the learners will internalize the strategy. Initial practice may be largely practitioner-directed, with practitioners continuing to model appropriate ways of thinking about the task at hand and deciding (with increasing student direction) which strategy or action is needed to work through whatever problems arise in completing the task.
- 5) **Provide feedback.** Providing feedback to learners on their strategy use is a critical part of helping them learn how to use a strategy effectively and how to change what they are doing when a particular approach is not working. Much of the feedback can be offered as learners become

involved in thinking aloud about the task and about strategy use during the modeling and practice steps described above. It is also important to provide opportunities for students to reflect upon their approaches to, and completion of, the task. What aspects of the task did they complete well? What aspects were difficult? Did any problems arise, and what did they do to solve the problems? What might they do differently the next time they have to complete a similar task? It may be valuable to incorporate these questions into a self-evaluation checklist for the learners' reference.

- 6) **Promote generalization.** It is important for learners to apply the strategy in various situations and with other tasks. This transfer is often not automatic for adults with learning disabilities. Consistent, guided practice at generalizing strategies to various settings and tasks is therefore vital for adults with learning disabilities.<sup>23</sup> It would be favourable for practitioners and learners to document the demonstrated success of generalizing the strategy so that it is not only learned, but is also confirmed at the same time.

The steps outlined in the SIM are not linear. In fact, quite often a practitioner may model the strategy, encourage the learner to practice, provide feedback and go back to modeling the strategy again to help the learner use the strategy more effectively. The modeling phase of the model can be a process within itself. The transfer from modeling to having the learner practice will most likely be gradual, with the practitioner providing less and less supports (scaffolds) as the learner practices with the strategy.

## **Direct Instruction**

There is ample research supporting direct instruction as an effective instructional method for individuals who may enter a learning situation with skill deficits.<sup>24</sup> The direct instruction model provides a framework to teach basic skills, such as understanding how to make simple sentences to more advanced skills, like finding the main idea in a reading passage. In direct instruction, skills are taught in sequence until learners can master them and generalize them to new untaught situations. The acquisition of the big picture does not come easily for many adults with learning disabilities. Therefore,

skills need to be broken down into sub-skills. The use of direct instruction can be compared to trying to climb a set of stairs – learners cannot reach the top until they have mastered each step. The following example helps to illustrate this point: when teaching reading skills, the first area is basic phonics, followed by more complex phonics, then decoding skills, then beginning comprehension and then more complex analysis, etc. Each new skill area builds on the previously learned knowledge.

## **PHASE 1**

### **Prior to the lesson:**

- Establish the objectives (what learners will be able to do or understand as a result of the lesson).
- Determine the standards of performance.

### **At the start of the lesson:**

- State the objectives and standards of performance (type of lesson to be presented, procedures to be followed and behavioural expectations related to it, what the learners are expected to do, what knowledge or skills are to be demonstrated and in what manner).

### **Introduce the skill:**

- Consider using a "hook" to grab learners' attention.
- Attempt to relate the experiences of the learners to the objectives of the lesson.
- Focus learners' attention on the lesson.
- Create an organizing framework for the ideas, principles, or information that is to follow.
- Extend the understanding and the application of abstract ideas through the use of example or analogy.

## PHASE 2

### Presentation of new information:

- **Input** - provide sufficient information for learners to gain the skill or knowledge (use a variety of tools such as lectures, films, tapes, video, and pictures).
- **Model** - once the material has been presented, the practitioner uses the material to show learners examples of what is expected as an end product of their work. Make sure that the skill is presented both verbally and visually.
- **Check for understanding** - determine whether learners have "got it", before proceeding. It is essential that learners practice **doing it correctly** so the practitioner knows when they understand, before proceeding to practice. If there is any doubt that the learners have understood, then the concept/skill should be re-taught before practice begins.

### Questioning strategies:

- Ask questions that go beyond mere recall to probe for higher levels of understanding.
- Ask questions to check for learner knowledge, comprehension, application, analysis, synthesis, and evaluation.

## PHASE 3

### Guided practice:

- Provide opportunities for each learner to demonstrate his/her grasp of new learning by working through an activity or exercise under the practitioner's direct supervision.
- Provide feedback that is immediate and specific. Learners benefit both from praise that clearly targets what they have done well, and from corrective feedback.

- Move around the room to determine the level of mastery and to provide individual remediation as needed.

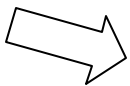
**Closure:**

- Review and clarify the key points of a lesson, tying them together into a clear summary and ensuring that the learners can apply the information to their own individual circumstances.
- Give learners an opportunity to bring things together in their own minds, to make sense out of what has just been taught.
- Help learners to form a coherent picture, to consolidate information, eliminate confusion and reduce frustration.
- Reinforce the major points that were learned.

**PHASE 4****Independent practice:**

- Provide reinforcement practice once the learners have mastered the content or skill.
- Offer opportunities for independent practice via homework or in the learning environment without the practitioner's assistance.
- Use in subsequent projects.
- Ensure that the independent practice provides enough different contexts so that the skill/concept may be applied to any relevant situation...not only to the context in which it was originally learned.<sup>25</sup>

**The failure to provide independent practice that incorporates different contexts is responsible for most learners' failure to be able to apply something learned.**



**Lesson using DI to teach conditional sentences.** Go to:

<http://meltingpot.fortunecity.com/zaire/131/directlesson.html#8> –

## Case study integration with Samantha

### **Brief profile of Samantha:**

Samantha has entered the college career preparation program to improve her skills so she can earn her ECE diploma. Based on her initial assessment, a potential visual processing learning disability was identified. She has difficulty reading and often will reverse words and leave off endings, which interferes with her comprehension. Samantha is very motivated to learn and has a good support system.

### **Direct Instruction Method:**

#### **Prior to the lesson (this goal can be shared by all learners in the group)**

Samantha will be able to identify, explain and create a prefix. Samantha will use her knowledge of prefixes and root words to help with decoding words while reading.

#### **At the start of the lesson**

Practitioner: Today we are going to learn about prefixes. By the end of the lesson you will be able to identify a prefix, understand its meaning, find the root word and create a prefix on your own. I will introduce you to the new skill and information. You will have a chance to practice the new skill in a game and then you will have the opportunity to try the skill on your own.

#### **Introduce the skill**

**The hook:** Put the word Prefix on the white board and hand out a sheet with the word on it. Ask the group if they see two words in the one. Encourage them to say the word and break it into two parts where they think the syllables connect. The practitioner may need to model. Then look at the two new words. Ask the group what “fix” means and discuss (i.e. to repair, to change, to modify). Then ask the group what “pre” means (i.e. before, at the beginning). The practitioner provides meaning to clarify when necessary. Then put the two words together (to fix or change the beginning of a word) to help understand what it means.

Practitioner: We all come across unfamiliar words when we are reading and when I encourage you to try to guess the word you have asked me in the past, how?

Learners (All): Yes (with a sigh).

Practitioner: What ways have we learned so far to guess the word?

Learner (Samantha): By looking at the sentence and predicting what the word would be based on the meaning of the sentence.

Practitioner: Yes Samantha, this is a good way to guess a word's meaning. Sometimes a word can change the meaning of the sentence depending on how it is put together. This is what we are going to learn about today - prefixes.

**Present instruction of what prefix means.** "Prefixes are added to the beginning of a root word to give a different meaning to the word."

### **Present new information**

The practitioner provides a couple of examples showing the prefix "un." Using cards, the practitioner presents the root word, adds the prefix, and then takes it away. The group is asked if they know of other examples. The practitioner models how the word can be broken down to get meaning (i.e. refill, fill, and unhappy and unlock).

**Model** the use of a prefix by doing the following:

Re = again

Redo = re + do = do it again

Rebuild = re + build = build it again

**Check for understanding.** Present additional words and ask for learner participation to define the meanings of the words by using the same format as was modeled above:

recapture, reenter, remodel.

**Then demonstrate and model** how to deal with "un". Provide the meaning of "un" - *not* or *the opposite* and model.

Unhappy = un + happy = not happy

Undo = un + do = to reverse what has been done

**Questioning strategies**

Practitioner: What other words do you think have prefixes?

Learner (Samantha): Incorrect. I heard this word a lot when I went to school.

The practitioner writes the word and encourages the group to write the word and then asks for a learner to break the word down into root and prefix. Ask the group for the meaning. Continue this to help ensure the learners are getting the skill. In addition, ask how else this new knowledge of prefixes could help with language skills. Discuss how it can help with spelling, writing, etc.

**Guided Practice** (two possible examples using a collaborative model)

1) Break the learners into groups of three and give them each a sample reading passage. Together have each group read it over orally (if comfortable) by taking turns to read each sentence and allowing time to read it over silently. Ask them to highlight or list the prefixes they see in the reading and attempt to put meaning to the words. Have the groups come back and report and together go through the answers. The practitioner provides continuous feedback throughout the process. The practitioner should interact with the groups during the activity to model and give feedback.

OR

2) Do a prefix game by offering the prefixes that they have learned (un, re, in) and a list of root words. Hand out root words on cards and distribute an equal number to each learner. Use a dice that has the prefixes on the sides. Each person rolls the dice - if they have a root word that would go with the prefix, then they can discard the card (if everyone agrees the correct meaning has been identified).

**Closure**

Bring the groups together and ask them to identify the prefixes that were learned today. Learner (Samantha): Un

Practitioner: Yes and how does this prefix change the meaning Samantha?

Learner (Samantha): It can make it mean the opposite.

Practitioner: Give me an example of this.

Learner (Joe): Unhappy means not happy.



The practitioner continues this process to ensure the group understands what was learned.

During the group activities, the learners identify other words with prefixes such as *illegal* and words with the prefix *dis*. The practitioner gives positive feedback on this discovery and identifies that there are other prefixes that the group will work on throughout the week.

### **Independent practice**

With the time remaining, each individual learner is given a list of words that have a combination of the prefixes learned today (*un, re, in*) and new ones such as *il, dis, and im*. The learners are asked to begin to highlight the prefix and attempt to match the meanings. This will be explored tomorrow along with looking at further reading passages to help decode by looking at the prefix and root word.

### **Additional strategies that may be built into the process to meet the individual needs:**

- Develop cue cards with the prefix and the meaning.
- Provide manipulative tools such as cards with root words and prefixes for the learners to use instead of a work sheet for their independent practice.
- Encourage learners to write words they come across in their reading that have a prefix in their journals (reinforces spelling, as well as comprehension).
- Develop picture clues for the prefix meaning.

## **Information Processing Model**

This theory offers a useful framework that represents the multi-faceted processes involved in learning information and thinking skills. Information-processing theory is particularly useful when working with individuals with learning disabilities because it helps practitioners think about how information can most clearly and explicitly be presented, so that learners are actively and appropriately involved in the learning process.<sup>26</sup>

When practitioners are aware of their learners' processing disabilities, they can use this information to ensure that strategies are incorporated into the instructional model that will help compensate for the processing breakdown. For example, if practitioners know they have adults with auditory disabilities, they may provide both oral and written information. This will also help meet the needs of adults who have visual processing disabilities since they prefer to hear information, rather than see it written. Organizational processing disabilities often go hand-in-hand with either visual or auditory disabilities. By understanding how information is processed, practitioners can integrate organizational strategies into their instruction to help learners effectively retrieve information from their long-term memory.

### **Five processes that impact the learning process**

- Input
- Attention
- Perception
- Working memory (short-term memory)
- Long-term memory

#### **Input**

One or more of our senses gathers information. It is not the role of the practitioner to teach to the preferred sense, but to provide information in a variety of modes to ensure that all learners can input the information. For example, when teaching problem-solving skills, practitioners will want learners to see the steps visually via a sequential chart, hear the steps orally, read over the sequences through an assignment and actually try out the steps by doing a case study. The first step is to use multiple channels to help learners input the information.

#### **Attention**

It is not only important that learners input, they must also attend to the information at this initial stage in order to transfer it to the next one. It is important for the practitioner to make sure the learners are paying attention to the right information. A person's level of interest and ability to relate to the information often increases one's attention. Practitioners need to highlight an interesting feature and provide examples of how this information relates to prior learning or knowledge. When learners pay attention to the information, there is a greater chance that the information will be processed further.

## **Perception**

A number of factors can interfere with a person's perception of the attended information, which can result in a breakdown in information processing. A person's values, previous experiences and ethnic origin, along with the presence of a learning disability, can interfere with information processing. How someone hears the information and sees the information can be interpreted differently than what was intended. If an adult has a visual learning disability, he/she may substitute words or letters and lose the meaning of the written information. This highlights the importance of presenting information in a variety of formats to help reduce the potential breakdown of information.

## **Working memory**

Our short-term memory has a limited capacity to take in large amounts of information and limited time to hold the information. To help improve the learning process, practitioners need to use a number of strategies to help the short-term memory to work effectively. The absolute capacity of short-term memory can be increased by combining bits of information into meaningful units or chunks. This process is called "chunking." Chunking is a major technique for getting and keeping information in short-term memory; it is also a type of elaboration that will help get information into long-term memory. Focusing on **meaning** also helps with chunking. Understanding the **meaning** of information to be learned involves understanding how new information relates to other new information or to information already known. This seems to help new information to move into long-term memory.<sup>27</sup>

Other methods to help information go into the short-term memory and become embedded into long-term memory include: imaging (creating a mental picture), using mnemonics, and rhyming.

## **Long Term**

Once information is moved into the long-term memory it needs to be organized so that it can be effectively retrieved. As previously mentioned, one of the most effective ways is when new information is related to previous experience or knowledge. Many adults with learning disabilities do not automatically do this so they need help to make the connection.

Techniques such as semantic mapping (where information to be remembered is grouped into clusters based on similarities that can be used as a cue for recall), elaboration (when information is added to or elaborated on to be remembered), and the use of visual images and mnemonics all help to move information into long-term memory.

## How to use the information process

<b>PROCESS</b>	<b>INSTRUCTION APPLICATION</b>
Input.	Use a variety of methods to convey the information: overheads, charts, handouts, videos, case examples, role play, computers, manipulative, discussions, etc.
Get their attention and bring to mind relevant prior learning.	Use cues to signal when you are ready to begin. Move around the room and use voice inflections. Review the previous day's lesson. Have a discussion about previously covered content.
Perception - point out important information.	Provide handouts. Write on the board or use transparencies.
Present information in an organized manner.	Show a logical sequence to concepts and skills. Go from simple to complex when presenting new material.
Move from short to long-term memory.  Provide opportunities for students to elaborate on new information.	Present information in categories. Show students how to categorize (chunk) related information. Connect new information to something already known. Look for similarities and differences among concepts.
Long-term memory: organization and retrieval. Show students how to use coding when memorizing lists.  Provide for repetition of learning	Make up a silly sentence with the first letter of each word in the list. Use mental imagery techniques such as the keyword method. State important principles several times in different ways during presentation of information (STM). Have items on each day's lesson from previous lesson (LTM). Schedule periodic reviews of previously learned concepts and skills (LTM).
Provide opportunities for over learning of fundamental concepts and skills.	Use daily drills for arithmetic facts. Play a form of trivial pursuit with content related to class.

## **Case study integration – Frank**

### **Brief profile of Frank:**

Frank enrolled in an adult high school credit program, but was referred to the local community-based program to receive one-to-one assistance. His test scores on the CATT were quite high, but he was unable to complete any assignments and found it hard to function in a classroom setting. It appears that Frank has an organizing learning disability and has difficulty maintaining his attention for long periods of time. Frank wants to build his organizational and planning skills to prepare him for starting his own home renovation business. Frank has difficulty staying on task, focusing on what has been said and pulling information together.

### **Overall goal for Frank**

- To listen to acquire information and understanding.
- To speak and write to acquire and transmit information by asking probing and clarifying questions, interpret information in his own words, and present the information clearly, concisely, and comprehensively.

### **Using the information processing model of instruction - Planning for a tutoring session:**

The tutor will integrate the information-processing model into his instructional method. Although Frank does not plan to take further educational training, he will be instructed on how to take effective notes to help improve his ability to understand his potential customers' needs.

### **Skills to learn during tutor session:**

- Identify the main idea and key points of the oral passage [knowledge]
- Dissect notes for the most important information [analysis]
- Organize ideas to write on index cards and post-it notes [application]

**Input and relevancy:**

Tutor: Frank, you mentioned a few weeks ago that you had renovated your brother-in-law's bathroom. Think back to when he first said he wanted to renovate his bathroom. What information did you need to gather to figure out what work was required to do the job?

Frank: Well that took some time – he is a bit of a big talker. It was two months and several beers later before he put his money where his mouth is.

Tutor: Yeah, I know a few people like that. When he finally came around to becoming serious what did you do?

Frank: We went and looked at the room and I asked him what he wanted to change. Tutor: Like what?

This discussion continued between Frank and the tutor. The tutor took notes while they discussed the conversation between Frank and his brother-in-law.

**Perception:**

The tutor showed Frank what notes he had written and together they read through the information to pull out the important points (i.e. budget, changes needed, time to complete, outline of work to be done, etc.).

**Present the information in an organized manner:**

The tutor took a piece of paper and put a line down the middle. On the left side he listed the key information and on the right he listed points that related to the key topics (i.e. On the left, he wrote budget and on the right he wrote the monetary amount. On the left, he wrote work to be done and on the right, he wrote plumbing – remove old toilet and install new one, replace bathtub with a new shower stall, etc.).

**Move from short-term to long-term memory:**

The tutor asked Frank to look over the notes and consider if there was any other information that he would need to get in order to complete a job. Frank said yes and began to list other information he would have to get. The tutor helped Frank to organize the information into key headings on the right. When they were done – the tutor asked Frank if the key headings on the left hand page were common to all renovation jobs. He said yes. Based on this, the tutor and Frank together developed a note-taking form that could be photocopied to use with each potential contract job.

**Long-term memory - learn how to retrieve:**

The note-taking form was used as a minor accommodation and aid to help Frank organize and remember the information that he needs to obtain to cost and plan out a potential renovation job. The tutor and Frank talked about what he had done in the past and Frank said he used to have a number of pieces of paper with notes on them and would have to communicate with his brother-in-law whenever he came across a step in the renovating process for which he did not have information. Together the tutor and Frank talked about how the new note format could help eliminate Frank's organization problems.

**Provide opportunities for over learning:**

The tutor asked Frank to look over the note format and key headings and to use this to collect information on a "mock renovation" job he could do in his house or for a family member. This will help him practice, will ensure that the note form works for him and will enable Frank to see if other key headings need to be included. Frank was asked if he could come to the tutor's house next week to do a role-play. Frank will pretend that the tutor is a potential customer and he will use the form to find out what the customer needs for the renovation of his kitchen.

**Goal of the note taking form and process:**

- To customize the note-taking process and form, so that it works for Frank.
- After continued use, it is hoped that Frank will rely less on the key points to be asked and will begin to be able to recall the questions on his own.
- To decrease the number of times Frank needs to ask the customer clarifying questions and eliminate any miscommunication about renovation needs.

# **I**nstructional approaches for reading, writing and mathematics

In Module 3, various reading, writing and math learning strategies were covered. It is not the intention of this module to repeat this information, but to emphasize the critical areas that need to be addressed when teaching these subject areas. In this section, key factors will be highlighted for each content area, and instructional tips and potential instructional models will be provided.

## **Reading**

As identified throughout the modules, adults with learning disabilities often have difficulty with reading comprehension. Depending on adults' disabilities, their comprehension may improve when they read the information via their strength i.e. adults with visual learning disabilities would most likely comprehend a passage better when they hear it versus when they read it. However research has shown that the main challenge experienced by people with learning disabilities is the lack of understanding for the importance of self-monitoring strategies, such as rereading a text when one doesn't understand the meaning. This form of self-monitoring is inherent for many of us, but not for people with learning disabilities. In addition to these challenges adults often have difficulty processing the difference between relevant and irrelevant material.

**Now that it is known why adults have difficulties, the next question is “How can they be helped with these challenge areas?”**

- First we need to instruct, model and generalize various self-monitoring strategies such as paraphrasing, questioning and rereading.
- Second, practitioners need to help adults understand the basic framework of text and how it is organized, by using structures such



as story grammar (setting, main character, major problem, character clues, attempts, resolution, conclusion, and theme). This will help adults to understand the difference between relevant and irrelevant information.

- Third, practitioners need to continually model and generalize how the above reading comprehension strategies can be applied to various reading materials and situations. Research has shown that even when adults learn various comprehension strategies they don't automatically know how to apply them to a situation that involves reading.<sup>29</sup>

## Writing

Writing can cover a large number of skills and concepts from mechanics to structure. Many adults with learning disabilities experience difficulties with their spelling, grammar, vocabulary and the ability to pull their ideas together cohesively. Research continually emphasizes that the most successful intervention is using a basic framework for writing that includes three phases: planning, writing and revising. Within each phase there are a number of strategies to assist with each area. The types of strategies that are used will depend on the individual learner's needs. Inherent in teaching the framework is the use of modeling, frequent feedback, and teaching scaffolds. In addition to focusing on the writing framework, practitioners will need to emphasize through modeling and demonstrating that different types of writing require different organization and context.

Not unlike reading, it is critical to provide explicit examples and demonstrations on how the writing process can be generalized to other writing tasks. Research done with children also suggests that teaching skills, such as spelling and punctuation, in conjunction with the writing processing skills has proven to be beneficial.<sup>30</sup>

## The TRIP reading and writing integration approach

“Knowledge of text structure appears positively correlated with reading comprehension and writing ability. Learning and understanding the elements of a story framework resulted in increased composition and comprehension abilities among students with and without disabilities.”<sup>31</sup>

The TRIP model was developed based on a predominant theme found among a number of research studies, “that integrating reading and writing appears to engage learners in a greater variety of reasoning operations than when writing or reading is taught separately or when students perform a variety of other tasks in conjunction with their reading.”<sup>32</sup>

The TRIP model has 4 phases and has incorporated effective instructional strategies such as providing scaffolds, integrating feedback and review, presenting information in sequence and providing the big picture. Movement from one phase to the next occurs only when mastery of the skills taught in the preceding phase is evident in a number of contexts.

### Phase 1

- Teach students narrative text structure and the importance of summarizing while reading short stories.
- Focus on the big idea.

### Phase 2

- Instruct students on how to integrate the text structure comprehension and composition strategy with a process to plan, organize, write, edit, and revise story summaries.
- Teach the POWER strategy and apply in story summaries (mnemonic: plan, organize, write, edit, and revise).
- Provide note sheets to learners (material scaffold).
- Model the process, use peer review, and then encourage learners to practice the new knowledge and skills on their own (teacher scaffold).

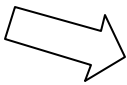
**Phase 3** (two focuses: first on story reading, then integration by using the story grammar elements)

- Encourage learners to apply the same writing strategy to create their own stories from pictures once they have mastered story summaries.
- Repeat the process with learners by having them generate stories with practitioner-selected topics.
- Utilize POWER cards (plan, organize, write, edit and revise) for necessary assistance (strategy and scaffolding).
- Prompt the edit/revise step through the use of checklists and peer assistance (scaffolding).
- Assign a final topic with no prompting except the POWER cards.

**Phase 4** (focus is on reading comprehension and writing)

- Transfer the narrative text structure to novel reading (big idea).
- Utilize text structure note sheets to record events in novels and to plan and organize summaries (scaffolding).
- Encourage learners to utilize all steps in the writing process in this phase (strategy).

Review in reading and writing persists over time, with newly introduced skills and strategies receiving the most frequent practice and review. Reading and writing opportunities should vary in their content, while remaining consistent in the skills and strategies used. This assists learners in transferring their skills and strategies to novel situations.



◆ **To access a copy of the curriculum timelines, story note sheet, prompted writing sheet, and prompted edit/revise checklist.**

◆ Go to: <http://www.calstat.org/integrated.htm>

## Mathematics

The information-processing model provides numerous perspectives for examining the math difficulties of students with learning disabilities. Weaknesses in selected components of information-processing may affect math performance. For example:

**Attention deficits:** learners have difficulty tracking the steps in algorithms or problem-solving.

**Visual-spatial deficits:** learners lose their place on the worksheet. Students have difficulty differentiating between numbers (e.g. 6 and 9), coins, the operation symbols, and clock hands.

**Auditory-processing difficulties:** learners have difficulty doing oral drills and are unable to continue counting from within a sequence.

**Memory problems:** learners are unable to retain math facts or new information, forget steps in algorithms or multi-step word problems.

**Motor disabilities:** learners write numbers illegibly, slowly, and have difficulty writing numbers in small spaces (i.e. write large).<sup>33</sup>

Research has shown that when practitioners develop skills in readiness (understanding numbers), computation, and problem-solving by using various adaptations, accommodations and different approaches, all learners can benefit, regardless of a disability.<sup>34</sup>

Inherent in the three keys areas (number readiness, computation and problem solving) are math concepts that will facilitate the greatest amount of knowledge acquisition across the content being taught. These concepts include: addition, subtraction, multiplication, and division; place value; fractions; estimation; probability; volume and area; and word-problem solving. The important concepts should be taught to mastery, rather than briefly covering numerous math skills superficially.<sup>35</sup>

## Effective techniques to enhance math instruction

- **Increase instruction time:** instead of giving shorter instruction time and more time on practice examples, spend more time on instruction, demonstration, modeling, and feedback procedures. Work with learners one-to-one or in a small group as they go through the practice questions, giving feedback and correction after each question. Small numbers of facts should be mastered at one time ...and then, frequent practice with mixed groups can be encouraged.
- **Use effective practice:** provide a review period of previously covered materials, and then provide directed instruction on the concept for the day. Provide scaffolds with a reduction of support i.e. guided practice with direct practitioner interaction, then independent practice with corrective feedback and small group format with peer interaction.
- **During practice periods:** ensure that learners are allowed opportunities to manipulate concrete objects to aid in their conceptual understanding of the mathematical process. Provide interactive and intensive practice with motivational materials such as games. Discuss the overall process involved in the lesson through small peer groups or one-to-one interaction with their tutor.
- **Varying group size:** use large groups for brainstorming and problem-solving activities. Break learners into smaller groups with similar functioning levels to allow them to progress through the skills at a comfortable level. If a high level of trust is established, you may want to mix the levels in the groups so they have the opportunity to interact and learn with all members of the group.
- **Using real-life examples:** introduce new concepts through everyday situations instead of worksheets. This helps learners to see the importance and relevancy of the math concept and increases their motivation to attend and learn.
- **Review opportunities to ensure mastery of skills:** because mathematics depends heavily on previously learned skills, it is important to ensure that prerequisite information is obtained prior to the introduction of new skills. Review opportunities should be (a)

sufficient for obtaining fluency, (b) distributed over time, (c) cumulative as more skills are learned, and (d) varied to promote generalization.

- **Varying reinforcement styles:** there should be less focus on right or wrong answers and more focus on positive recognition of completing the steps, regardless of the outcome. Encourage learners to self-chart their progress. Have them keep track of how many and which facts are mastered and how many more there are to go. Include monitoring student progress on a frequent basis, teaching math skills to mastery and teaching generalization.<sup>36</sup>

Integrated in the instructions techniques are the use of both direct instruction and a collaborative approach. The rule when using these two approaches is to engage learners in collaborative approach, only after they have received direct instruction in the mathematics and the objectives for the group activity.

“Therefore, “lesson instruction” consists first of direct instruction, and then the cooperative learning activity. Cooperative learning can be used as the “guided practice” time when students engage in tasks to practice introduced skills.”<sup>37</sup>

## Examples of math collaborative learning activities

**Numbered Heads collaborative approach:** After each team member numbers off, students discuss the answer to a question. Then, in a large group, the teacher calls a specific number and group to answer the questions.

**Math example:** Discuss the answer to a mental computation problem. Apply the definition of a rule previously introduced to problems; explain the application of the rule.

**Round the Table collaborative approach:** Students work on problems jointly by passing the problems around the table for each member's response.

**Math example:** Pass a worksheet with multiplication facts for each member to answer a problem. Pass problems for each member to compute the next step of an algorithm.<sup>38</sup>

## **C**ollaborative approach to learning

A collaborative approach helps promote active learning and engaged learners. It encourages collaboration between the practitioner, the learner (both in a one-to-one and group setting) and among peers when in a small group or classroom setting. This approach shares similar principles with effective approaches for working with adults with learning disabilities. Both approaches encourage active learner involvement in goal-setting and assessment, encourage hands-on learning, and stress the need for relevant learning activities and opportunities to reinforce and generalize the learning.

The facilitator is an equal participant and not the source of information. All members take on active roles, without each person's involvement the group, as a whole cannot meet their goal. When integrating this approach into practice, it should be cautioned to ensure that direct and explicit instruction is provided first. Adults with learning disabilities need to have concrete, explicit instruction on a particular concept before they can use the information in a collaborative approach involving group discussions or problem-solving activities.

Project-based learning is often associated with collaborative learning. This is a learning approach that supports the principles of collaborative learning. It requires the participants to work as a team and the ownership of the project is shared. The learning-by-doing environment keeps adults active and engages them in the learning process. The learning becomes less abstract as learners perform more skills and acquire knowledge.<sup>39</sup> Projects can vary in complexity and length depending on the groups' composition. Projects can be as simple as learning how to balance a chequebook or as complex as planning a learner conference. Regardless of the project, the key outcome is that both the learners and facilitator learn new knowledge and skills.<sup>40</sup>

## Elements of the collaborative approach

- It **promotes meaningful learning** by using real-life situations.
- **Learners' previous knowledge bases** are added to with newly acquired information.
- The **content and direction** of the project is **determined by the learners**, with the teacher as facilitator. Group members should discuss how well they are achieving their goals and maintaining effective working relationships. Groups need to describe what member actions are helpful and unhelpful and make decisions about what behaviours to continue or change.
- A **positive learning environment** is created. Each group member's efforts are required and indispensable for group success. Each group member has a unique contribution to make to the joint effort because of his or her resources and/or role and task responsibilities.
- **Learners learn by doing** - through finding information and making decisions. Learners need to do real work together in which they promote each other's success by sharing resources and helping, supporting, encouraging, and applauding each other's efforts to achieve.
- **Learners** are encouraged to **assess their own learning**. The group must be accountable for achieving its goals and each member must be accountable for contributing his or her share of the work. Individual accountability exists when the performance of each individual is assessed and the results are given back to the group and the individual in order to ascertain who needs more assistance, support, and encouragement in learning.<sup>41</sup>



## Tips on how to begin using this approach

**Plan** - the practitioner must:

- Consider where, and in how much of the learning activity, collaboration is appropriate
- Establish and communicate clear objectives
- Use suitable techniques
- Prepare content materials, including meaningful questions or problems for group work
- Structure groups
- Provide a clear sense of expected outcomes of group work<sup>42</sup>

### Discuss roles

Role of practitioner

- Facilitator
- Enters into a process of mutual inquiry
- Relates to learners as a knowledgeable co-learner
- Establishes an appropriate environment for cooperative learning
- Prepares learners for collaborative work by providing a rationale and the necessary training so that learners can engage in the process

Role of the learner

- Problem solver
- Contributor
- Accepts low or moderate to high expectations for class preparation
- Collaborates with peers
- Views oneself, peers and the thinking of the group as sources of information and authority
- Is prepared to take turns with different roles during group work activities such as facilitator, reporter, and recorder or motivator<sup>43</sup>

## **Implementation**

- Introduce the learning strategy: explain benefits, process and roles of the instructor and the learners
- Provide handouts on the learning process appropriate to the reading level of learners
- Utilize various team-building activities that are designed to help learners get to know one another and/or to work together
- Provide a learning environment where everyone is valued
- Actively involve the learners in deciding on the topic(s) for discussion
- Encourage learners to draw connections between what they know and what they are learning
- Allow time for ongoing responses
- Utilize practical activities and hands-on materials that are relevant to the real-life experiences of the learners
- Model the strategy to be used and provide only minimum input that helps learners to see new possibilities and new problems<sup>44</sup>

## **Examples of collaborative learning activities**

### **Jigsaw Groups**

Jigsaw groups can have 3 to 6 members. Each member becomes an expert on a subtopic of the material being studied and then teaches the material to the rest of the group. Group members who have the same subtopic meet in “expert” groups to discuss what they are reading and learning. They use resources provided by the practitioner to help them in their exploration of the material. When the members of the expert groups have learned the material, they return to their original groups to share what they have learned. Each group member is responsible for listening and taking notes on the information being presented.

### **Student Teams Achievement Divisions (STAD)**

This strategy combines whole class discussion with small group activity. The practitioner presents new information to the class and then divides the class into teams. Each team should contain students with different levels of ability. Team members help each other learn the new material through discussion, problem-solving and using guide materials provided by the practitioner.

### Learning Circles

Learning circles are similar to STADs in that whole class discussion is followed by small group activity. Learning circles are suitable for brainstorming, prediction, problem-solving, and mapping.

### Structured Problem-solving

Structured problem-solving can be used in conjunction with several other cooperative learning structures.

- Have participants brainstorm or select a problem for them to consider.
- Assign numbers to members of each group (or use playing cards). Have each member of the group be a different number or suit.
- Discuss the task as group.
- Each participant should be prepared to respond. Each member of the group needs to understand the response well enough to give the response without help from the other members of the group.
- Ask an individual from each group to respond. Call on the individual by number (or suit).

**Uncommon Commonalities:** can be used to foster a more cohesive group

Uncommon Commonalities			
1	2	3	4
Team Name			

- Groups get together and list individual things about themselves that define them as people.
- Groups then discuss each item, finding things that 1, 2, 3, or 4 of them have in common.
- When the group finds an item that all of them have in common, they list that item under 4; when they find something that 3 of them have in common, they list that item under 3, etc.

**Group Investigation**

Teams of 2 to 6 students work together to find information on a topic of interest to them within a thematic unit. Each group plans the inquiry in consultation with the practitioner. Group members need to decide how to investigate the topic, which tasks each member will be responsible for, and how the topic will be reported to the rest of the class. The practitioner's evaluation can include individual performance as well as the overall quality of the group performance.

**Send-A-Problem:** can be used as a way to get groups to discuss and review material, or potential solutions to problems related to content information.

1. Each member of a group generates a problem and writes it down on a card. Each member of the group then asks their question to other members.
2. If the question can be answered and all members of the group agree on the answer, then that answer is written on the back of the card. If there is no consensus on the answer, the question is revised so that an answer can be agreed upon.
3. The group puts a Q on the side of the card with the question on it, and an A on the side of the card with an answer on it.
4. Each group sends its question cards to another group.
5. Each group member takes one question from the stack of questions and reads one question at a time to the group. After reading the first question, the group discusses it. If the group agrees on the answer, they turn the card over to see if they agree with the first group's answer. If there again is consensus, they proceed to the next question. If they do not agree with the first group's answer, the second group writes their answer on the back of the card as an alternative answer.
6. The second group reviews and answers each question in the stack of cards, repeating the procedure outlined above.
7. The question cards can be sent to a third, fourth, or fifth group, if desired.
8. Stacks of cards are then sent back to the originating group. The sending group can then discuss and clarify any question

### **Group Retellings**

Each member of the group reads a different text on the same topic. The difficulty of the material can be matched to the level of the student. After reading, each member shares what she/he has read. The other members listen and share additional information and insights based on their reading.<sup>45</sup>

**Variation:** A variation on the send-a-problem is to use the process to get groups to discuss a real problem for which there may not be any one set answer.

1. Groups decide on one problem they will consider. It is best if each group considers a different problem.
2. The same process is used, with the first group brainstorming solutions to a single problem. The problem is written on a piece of paper and attached to the outside of a folder. The solutions are listed and enclosed inside the folder.
3. The folder is then passed to the next group. Each group brainstorms for 3-5 minutes on the problems they receive without reading the previous group's work and then they place their solutions inside the folders.
4. This process may continue to one or more groups. The last group reviews all of the solutions posed by all of the previous groups and develops a prioritized list of possible solutions. This list is then presented to the group.<sup>46</sup>

### **Collaboration approach web resources**



**A great resource that lists teaching strategies that use a combination of collaborative, thinking skills and visuals.** Go to:

<http://edservices.aea7.k12.ia.us/framework/strategies/>

**Instructional Framework.** Go to:

<http://edservices.aea7.k12.ia.us/framework/download.html>

## **S**Standards for selecting instructional materials

The following standards were developed by the National Adult Literacy and Learning Disability Center. They have used 8 standards to evaluate a number of commonly used instructional materials, including Laubach Way to Reading, Breakthrough to Math (3) and Challenger 6 Adult Reading Series. The standards should be used as a guide for reviewing existing and potential material that agencies are considering for purchase. It is not expected that every instructional material will meet all 8 standards. However, each agency needs to look at what standards are most critical to meet the learning needs of the adults they serve.

### **The instructional material is effective for teaching adults with learning disabilities.**

- Look for a description of research that indicates that the material is effective for adults with learning disabilities (i.e. results that describe how the instructional material worked with adults)
- Make sure the information is presented in a visually friendly manner with good font size, lots of white space, and clear layout of information

### **The instructional material is appropriate for an adult, regardless of the person's age, gender, race, ethnicity, and primary language.**

- Look for studies that include adults with the same characteristics as persons whom your organization serves (i.e. either the material was tested with similar groups of learners, or the examples used, reading passages and questions are adult-oriented and would not offend the group you work with)

### **The instructional principles used to promote learning are clearly stated and are consistent with what is known about learning disabilities.**

- Look for teaching practices that have learners question each other, encourage learners to correct their own work, and ask them to generate more than two work samples

- A description of how the material was developed might include theories or incorporate learning principles

**The learning outcomes that can be expected are clearly described.**

- Look for a list of measurable skills or knowledge that is required for mastery of tasks

**The results achieved by using the instructional material can be used to make decisions regarding further instruction.**

- Look for suggestions of materials to use and specific skills/competencies that the learner should address next upon mastery of the skills

**The procedures for checking the learner's progress are clear and easy to use.**

- Look for guidelines on how to assess the learner's progress (suggested prompts for questions to ask, a description of the process and/or a graph for documenting progress)

**The requirements for literacy practitioners to learn to use the instructional material are reasonable.**

- Look for guidelines to determine if the practitioner meets the requirements to use the material (i.e. could be as simple as needing to read over the procedure manual to something more difficult like actually attending a workshop to be trained on how to use the materials)

**The instructional material can be used in a variety of instructional situations within the literacy program.** <sup>47</sup>

- Look for suggestions on how the material can be used/adapted to a variety of instructional settings (small group, one-to-one, independent study)
- Look for suggestions on how to use the material in different instructional contexts (presentation style, collaborative approach, etc.)



**The following instruments have a completed report card: you can access them at [http://www.nifl.gov/nifl/ld/reports/bridges\\_pt3.pdf](http://www.nifl.gov/nifl/ld/reports/bridges_pt3.pdf). Go to Appendix B (page 73 document reference and page 93 PDF reference)**

The ADD Program  
Affective Skills Curriculum  
Building Learning Power for  
Children and Adults Breakthrough to Math, 3  
Challenger 6, Adult Reading Series  
Cooper Sight/Sound Reading System  
Cooper Individualized Spelling Program  
English Day by Day  
Everyday Reading and Writing  
Framing Your Thoughts  
Jordan Prescriptive Reading Tutorial  
Keystrokes to Literacy  
Language!  
Laubach Way to Reading  
Learning Wrap-Ups and Math Facts  
Number Sense, Fractions  
Paraphrasing Strategy  
Personal Stories, Book 2  
Pre-GED Writing  
Reading in the Content Areas, Lit. 2  
The Self-Advocacy Strategy for Ed. and Transition Planning  
Starting Over  
Studying for a Driver's License  
Tic Tac Toe Math  
Visualizing and Verbalizing  
VAK Tasks for Vocabulary and Spelling  
Wilson Reading System



## **L**earn to apply learning styles/multiple intelligence to instruction

By now most practitioners are familiar with the different theories about learning styles. The idea that an adult has a preferred way of learning such as auditory, visual, or kinesthetic has been part of the literacy program's repertoire for quite some time. More recently practitioners have been introduced to the Multiple Intelligence theory (MI), which states that people have strengths in various types of intelligence. The question that often is pondered by practitioners is, "how do we integrate the theory into practice?" In this section both a general application for the theories and specific examples of how the theories can be used for **both personal reflection and instruction** will be provided.

Learning theorists share a common belief that adults have different strengths or ways of learning. Professionals who work with adults with learning disabilities also share this belief. The caution echoed by both groups is that practitioners **should not** teach to an adult's learning style, but should recognize the varying strengths and offer a variety of learning formats/tools that will meet the different needs. Providing materials and learning tools that are only geared to learners' strengths does not help them to improve the other learning avenues. This practice does not encourage them to become independent learners because outside of the classroom or tutoring environment they will be exposed to information that is presented in formats that may not favour their particular learning style or strength.

### **Impact of learning styles/MI on literacy instruction**

- Practitioners are now aware that all adults learn differently
- Practitioners have become aware of their own learning preferences
- Practitioners ensure that the design of the lesson meets the needs of all learners
- Learners are able to self-reflect on their own preferences and understand how they learn best

## **Incorporating theory into instruction**

Learning styles and MI are theories, not instructional models. Practitioners are not expected to throw out the old and replace it with a new approach, but rather use the knowledge gained from the theories to enhance their existing practices.

### **A typical group reading activity would involve:**

- A pre-reading question
- The group reading the story while incorporating skills they have learned such as decoding
- After each chapter, the group may discuss what they read, review difficult words and reread the paragraph if needed
- Once the story is read, a few questions are asked and the instructor may ask the learners to write a paragraph in response to the questions

**When MI is applied** the same process takes place, but additional activities are added and choices are given.

- Additional post-reading activities could include: drawing a picture or using modeling clay to show any part of what was read; using a diagram or map to illustrate the story; writing or discussing with someone an interesting part of what was read; or designing individual projects for the passage that was read.
- The additional options give learners choice and opportunities to express their preferred way of learning.

Practitioners who have used this approach found that their learners had a greater understanding of the reading passage. The learners became invested in the final results and wanted to make sure their projects were accurate. “Reading became a tool to do the projects, whereas a book report makes the reading the focus.”<sup>48</sup>

### **Application to instruction**

- Lesson formats that give learners choices that correspond loosely to the 8 intelligences or different learning styles. The learning goals do not change, but the enriched learning activities help learners to reach their goals more effectively. To be effective the content and approaches need to be meaningful to the learners. This is why choice is the key.
- Emphasis is on using students' particular learning strengths to assist in areas of particular difficulty.
- Develop project-based curriculum using MI/learning styles as a framework. This emphasizes authentic problems and activities.<sup>49</sup>

### **Incorporating theory into reflection**

Learning style/MI theories can be used as a tool to plan appropriate instruction and curriculum, whereas learning style/MI reflection uses the theories as tools to reflect on individuals' strengths and related learning strategies. Examples of reflection activities could include: showing pictures of people engaged in work or activities and identifying the various MI that can be observed, or taking pictures of adults engaged in the activities they have chosen and talk about why they chose them and the related intelligences or learning styles.<sup>50</sup>

### **Using reflection practices**

- Reflect on and identify students' strengths and preferences. This approach helps learners who view themselves as unintelligent because they equate intelligence with book learning.
- Utilize learning theory as a basis for discussion and consider why it is incorporated into lessons. This will help learners to understand the rationale for unconventional learning activities, and to consider them a positive and promising change.

- Emphasize learner participation in learning style-based reflections to "learn about their ways of learning." It helps learners to find learning strategies that fit their strengths/interests. Learner-practitioner dialogue and frequent promotion by the practitioner will help learners begin to link the information about their intelligences/learning styles with new learning strategies.<sup>51</sup>

### **Examples of how to teach spelling by incorporating the various learning styles and MI**

This approach is an example of a multi-sensory approach.

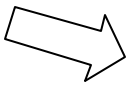
- Language: write down words and look up their meanings, spell out loud, discover how to change a word to mean the opposite.
- Spatial: write the words vertically, write words so their shapes make pictures of the words, break words into syllables and write each syllable in a different colour.
- Logic/math: build word families, teach spelling rules which are the most consistent, practice prefixes and suffices in pattern exercises, and use proof writing for errors.
- Body movement (kinesthetic): use the computer, use stencils to write words, trace letters in the air, make up words to show stress or spelling patterns.
- Musical: use familiar tunes to memorize the letters in a word, use rhymes to remember words.
- Social (interpersonal): play spelling games, play Scrabble.
- Self (intrapersonal): picture a word in your head - What colour is it? Spell it backwards. How many letters are in it? Make a personal dictionary of words that are important to you.

Source <http://literacyworks.org/mi/practice/teaching-spelling.html>

This example illustrates many different ways to approach spelling. Practitioners are not expected to use all of the strategies at once, but are encouraged to use a variety in the learning environment and/or offer the list to the learners and have them choose what they would like to try. The basic principles can be adapted for many literacy skills. For example, if a learner is working on math: offer math games, objects to manipulate, sequencing activities, and software; highlight the operations with different colours; and use visual pictures to represent numbers, etc.<sup>52</sup>

“When practitioners give learners choices in how they learn and demonstrate what they have learned, they are effectively giving some control to learners. Over time, as learners experience diverse MI/learning style-based learning activities, they begin taking more initiative and control over the content or direction of the activities.”<sup>53</sup>

Using this approach may require practitioners to take some risk and perhaps step out of their comfort zone. Practitioners who have taken this risk found they were rewarded with an increase in learner engagement and level of output. They found that sharing some of their insecurities with the learners and taking the time to learn about and discuss the learning style theories led to a greater willingness by the learners to try the enhanced activities. Building trust and mutual respect enables learners to take risks and try new activities such as role-playing, telling a story or building something. Practitioners who took this approach acknowledged that change did take time, but the results were well worth the planning and risks taken by all.<sup>54</sup>



**To access sample lessons/strategies and resources for reflection go to the following websites:**

- ◆ <http://pzweb.harvard.edu/ami/thematicunit.htm>
- ◆ <http://literacyworks.org/mi/practice/index.html> offers strategies for each of the 8 MI
- ◆ <http://literacyworks.org/mi/assessment/index.html> offers an interactive form to assess your MI – it emphasizes that everyone has some degree of the 8 intelligences, but some are stronger than others
- ◆ <http://literacyworks.org/mi/practice/additional.html> additional strategies - ways to incorporate music

## **O**ngoing assessment

Module 2 covered assessment and focused on the initial assessment to help both practitioners and learners understand the impact of their learning disabilities. This section includes ongoing assessment since it is such an integral part of the instructional process.

The need for ongoing monitoring and assessment is critical when working with adults with learning disabilities. The ongoing assessment process needs to be inclusive (both the learner and the practitioner) and it needs to be constructive and elaborative by providing suggestions to improve or enhance their learning. The ongoing assessment not only focuses on the learner's skill acquisition but also examines any learning strategies the learner is accessing, related accommodations and practitioner instructional approaches. Any one variable or combination of these variables could impact a learner's success. This emphasizes the need for frequent monitoring to help isolate any barriers immediately and the need to problem-solve together with the learner to identify alternative strategies, accommodations and instructional approaches.

Module 4 highlighted the need for learners to be responsible for charting their progress, which helps to increase motivation and self-determination and helps learners become responsible for their own learning. Although inquiry questions have already been addressed in previous modules, to help evaluate the use of learning strategies and accommodations, it is pertinent to cover them again.

### **Ongoing assessment of learning strategies**

Providing feedback to learners on their strategy use is a critical part of helping them learn how to use a strategy effectively and how to change what they are doing when a particular approach is not working. It is also important to provide opportunities for learners to reflect upon their approach to and completion of the task. What aspects of the task did they complete well? What aspects were difficult? Did any problems arise, and what did they do to solve

the problems? What might they do differently the next time they have to complete a similar task? It may be valuable to incorporate these questions into a self-evaluation checklist for the learners' reference.

## **Ongoing assessment of accommodations**

- Gather information that describes the results of accommodations
- Discuss the results with the learner
  - What benefits are they seeing?
  - Are they reaching their goals?
  - Are there problems?
  - Do they experience any difficulties?
  - How has it helped them?
  - What do they need to change or revise?
  - Have they used the accommodation in other settings? If not, why? What needs to be changed/modified?<sup>55</sup>

The ultimate aim through this process of ongoing monitoring, assessment and feedback is to encourage learners to move toward self-evaluation and self-correction. Ongoing assessment does not mean that a practitioner needs to set up separate times to review progress, although this may be integrated into the process. But it can be built into the day-to-day instruction by observation of the learning activities, asking the learners to engage in self-evaluation, through the group process and through various instructional techniques such as scaffolding, questioning, and feedback.

## Summary of key points

- Effective instruction should be: direct, structured, explicit, information process sensitive, relevant, and reinforced.
- Providing instruction on a strategy is a **learner's approach** to learning a task. The practitioners **approach** to an instructional task encourages learning of critical skills and knowledge. This approach focuses on how practitioners think about, adapt, and present the skills and critical knowledge in a "learner-friendly" fashion.
- Effective instructional planning should involve three components:
  - **Content** (the critical information and skills that need to be covered)
  - **Process** (how it will be presented)
  - **Integration** (how the information provides meaning for each individual)
- Content enhancement routines are instructional techniques to help organize large amounts of information, present information logically, further understanding of new concepts, and enhance the recall of information.
- When deciding on what type of instructional model to access, practitioners need to determine their current knowledge and skill in utilizing the method, the desired learner outcomes and their measures before decisions are made. In addition, any approach that is taken needs to balance both the learning strategies for skill development and instructional enhancements for understanding content and concepts. The 3 methods that were addressed in the module were:
  - Strategic Instruction Management (SIM)
  - Direct Instructional Method
  - Information Processing



All 3 instructional models incorporate the use of demonstrating, modeling, practicing, giving feedback and generalizing the skills and knowledge to be learned.

- Collaborative approach involves the use of group activities that foster shared responsibilities and contributions for learning. The practitioner acts as a facilitator. The collaborative approach is helpful for learners to practice what they have learned through guided practice and peer review. The rule when using these two approaches is to engage learners in collaborative approach only after they have received direct instruction in the mathematics and the objectives for the group activity. Practitioners need to use a concrete-to-abstract teaching sequence.
- Learning theories can be applied to **enhance instruction** and provide structure for **reflective practice**. Learning styles and MI are theories - not instructional models. Thus practitioners are not expected to throw out the old and replace it with a new approach, but rather to use the knowledge gained from the theories to enhance their existing practice. This approach helps learners who view themselves as unintelligent because they equate intelligence with book learning. Using learning theories for reflective practice helps learners to identify their strengths and preferences and helps learners to not only understand the rationale for unconventional learning activities, but to consider them a positive and promising change.
- The ongoing assessment process needs to be inclusive (of both the learner and the practitioner) and it needs to be constructive by providing suggestions to improve or enhance learning. The ongoing assessment not only focuses on the learner's skill acquisition, but also examines any learning strategies the learner is accessing, related accommodations and practitioner instructional approaches. The ultimate aim through this process of ongoing monitoring, assessment and feedback is to encourage learners to move toward self-evaluation and self-correction.

## End Notes

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